



Enquiries Matthew Buchanan
Telephone (07) 3224 6349
Our reference STH2270

Environmental Protection Agency

Incorporating the
Queensland Parks and Wildlife Service

10 December 2001

Jodie McKinnon
Department of Natural Resources and Mines
PO Box 839
SPRING HILL QLD 4004

Dear Ms McKinnon

Application for Transfer of Transitional Environmental Authorities by Boral Bricks Pty Ltd

The Environmental Protection Agency has decided to grant an application for transfer of transitional environmental authorities T 1241, 1246, 1278, 1289, 2252, 3542, 3543, and 3546 relating to mining leases 50121, 1100, 1106, 1158, 1171, 4622, 50116 and 50117. The transfer is from Boral Bricks (Qld) Limited to Boral Bricks Pty Ltd.

Please find enclosed an amended copy of environmental authority M1241.
The application was granted on 10 December 2001 and takes effect on 19 December 2001.

Please also note that under section 266 of the *Environmental Protection Act 1994*, the new holder must give notice to all owners of the land to which the environmental authority relates that the environmental authority has been transferred to the new holder. The relevant notice is attached.

The EPA has no immediate requirement for additional financial assurance above and beyond that detailed in the audit statement of the last plan of operations.

If you have any queries relating to this authority, please contact Matthew Buchanan, Principal Environmental Officer on 3224 6349.

Yours faithfully

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Gary Kane
Operations Manager - Licensing
Delegate of Administering Authority
Environmental Protection Act 1994



Environmental Authority No. M1241 (mining activities)

Section 155 *Environmental Protection Act 1994*

This environmental authority is granted under the Environmental Protection Act 1994 and includes conditions to minimise environmental harm caused, or likely to be caused, by the authorised mining activities. An environmental authority (mining activities) may be for mining activities authorised (under the Mineral Resources Act 1989) to occur under one of the following mining tenements: a prospecting permit; mining claim; exploration permit; mineral development licence; or mining lease. In general, a mining activity means: prospecting, exploring, mining; or processing minerals; remediation; rehabilitation; and includes facilitation and supporting activities and any action taken to prevent environmental harm.

**Under the provisions of the
Environmental Protection Act 1994 this environmental authority is issued to:**

Boral Bricks Pty Ltd
Harcourt Road
DARRA QLD 4076

in respect of carrying out activities as part of the following mining project:

Type of environmental authority (mining activities)	Authorised mining tenements	Location
Mining Lease	ML1106	Strathpine
	ML1171	Strathpine
	ML1100	Darra
	ML1158	Darra
	ML50121	Darra
	ML4622	West Moreton
	ML50117	West Moreton
	ML50116	West Moreton

This environmental authority is subject to the conditions set out in the attached schedules.

The anniversary date of this environmental authority is 19 December

Release



This environmental authority takes effect from 19 December 2001

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Signed

Date

Gary Kane
Operations Manager - Licensing
Delegate of Administering Authority
Environmental Protection Act 1994

Note: This environmental authority document is not proof of the current status of the environmental authority. The current status of the environmental authority may be ascertained by contacting the Environmental Protection Agency.

Schedule of conditions

This environmental authority consists of the following schedules of conditions relevant to various issues:

- Schedule A - General conditions

Schedule A - General conditions

- (A1) 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.
- (A2) The environmental authority holder must comply with any commitment, obligation, requirement or undertaking stated in the following planning documents:
- a) Boral Bricks Qld Limited. Brisbane District Operations, Mining Lease No's 1100, 1106, 1154, 1158, 1171, 4622, MLA 50121, MLA50116 and MLA50117. Environmental Management Overview Strategy. PJM 50104. October 1995. Amended May 1996.
 - b) Boral Bricks Qld Limited. Brisbane District Operations, Mining Lease No's 1100, 1106, 1154, 1158, 1171, 4622, 50116, 50117 and 50121. Plan of Operations. PJM 50104. March 1999.
- (A3) The environmental authority holder is to give the administering authority an Environmental Management Overview Strategy (EMOS) pursuant to section 203 of the *Environmental Protection Act 1994* by 1 July 2002.

END OF ENVIRONMENTAL AUTHORITY

Release



Queensland Government

**Environmental Protection Agency
Queensland Parks and Wildlife Service**

Environmental Authority No. M1241 (mining activities)

Section 240 *Environmental Protection Act 1994*

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This environmental authority is granted under the Environmental Protection Act 1994 and includes conditions. An environmental authority (mining activities) may be for mining activities authorised (under the Mineral Resources Act 1989) to occur under one of the following mining tenements: a prospecting permit; mining claim; exploration permit; mineral development licence; or mining lease. In general, a mining activity means: prospecting, exploring, mining; or processing minerals; remediation and rehabilitation.

Under the provisions of the *Environmental Protection Act 1994* this environmental authority is issued to:

Boral Bricks Pty Ltd
c/- Boral Limited
Level 39, 50 Bridge Street
SYDNEY NSW 2000

in respect of carrying out mining activities as part of the following mining project:

Type of environmental authority (mining activities)	Authorised mining tenements	Location
Mining Lease	1100, 1158, 50121	Darra
Mining Lease	4622, 50116, 50117	Redbank Plains
Mining Lease	1106, 1171, 50183	Strathpine

Pursuant to section 18(a) of the *Environmental Protection Act 1994* the above-described mining activities are an environmentally relevant activity ("ERA"). Those mining activities are hereby authorised to the extent defined in section 12(b) of Division 2, Part 2, Schedule 6 of the *Environmental Protection Regulation 1998* as follows:

Mining activities, other than a standard mining activity, carried out using equipment and plant having a mineral ore throughput of more than 100 000t, but less than 500 000t, a year.

This environmental authority is subject to the conditions set out in the attached schedules.

The anniversary date of this environmental authority is 30 June.

This amended environmental authority takes effect from 30 June 2004.

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Signed

Date

I Pepper
A/Manager (Licensing)
Brisbane District, Southern Region
Delegate of Administering Authority
Environmental Protection Act 1994

30/6/04

PART 1 - ENVIRONMENTAL AUTHORITY (MINING LEASE) – (Section 258 *Environmental Protection Act 1994*)

This part is for carrying out an environmental authority (mining activities) for a mining lease under chapter 5, parts 1, 2 and 6 of the Environmental Protection Act 1994.

Schedule A - General conditions

Prevent or minimise likelihood of environmental harm

- (A1-1) In carrying out the ERA the authority holder must take reasonable and practicable measures to prevent or minimise the likelihood of environmental harm being caused. Any ERA that, if carried out incompetently or negligently may cause environmental harm, shall be carried out in a proper manner in accordance with the conditions of this authority.

Note. This authority authorises the ERA. It does not authorise environmental harm unless a condition hereof explicitly authorises that harm. Where there is no such condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

Maintenance of measures, plant and equipment

- (A2-1) The authority holder must:
- (a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this authority;
 - (b) maintain such measures, plant and equipment in a proper and efficient condition; and
 - (c) operate such measures, plant and equipment in a proper and efficient manner.

Monitoring

- (A3-1) Record, compile and keep for a minimum of five years the results of all monitoring required by this authority and make those records available for inspection upon request by the administering authority.
- (A3-2) Where monitoring is required by this authority, ensure that a competent person conducts all monitoring.

Storage and handling of flammable or combustible liquids

- (A4-1) Spillage of any flammable or combustible liquids must be contained on the site and rectified whereby environmental harm other than of a trivial nature is not caused.
- (A4-2) All petroleum product storage must be designed, constructed and maintained in accordance with Australian Standard 1940 - Storage and Handling of Flammable or Combustible Liquids.

Financial assurance

- (A5-1) Provide a financial assurance in the amount and form required by the administering authority prior to the commencement of the ERA.

NOTE: The calculation of financial assurance for condition (A5-1) must be in accordance with EPA Guideline 17 *Financial Assurance for Mining Activities* and may include a performance discount. The financial assurance amount is defined as the maximum total rehabilitation cost for complete rehabilitation of all significantly disturbed areas, which may vary on an annual basis due to progressive rehabilitation. The amount required for the financial assurance must be the highest Total Rehabilitation Cost calculated for any year of the Plan of Operations and calculated using the formula: Financial Assurance = Highest Total Annual Rehabilitation Cost x Percentage Required.

- (A5-2) The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely.

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

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Environmentally sensitive areas

- (A6-1) Mining activities must not be carried out in Endangered Regional Ecosystem 12.3.3 as shown on Figure 4 in Schedule I hereof.

END OF CONDITIONS FOR SCHEDULE A

Schedule B – Air

Dust nuisance

- (B1-1) The release of dust or other particulate matter resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B1-2) For the purposes of condition (B1-1), the ERA will not cause environmental nuisance where dust or other particulate matter resulting from the ERA does not exceed the following limits when measured at any sensitive place:
- (a) dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard 3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulates – Deposited matter – Gravimetric method ; or
 - (b) a concentration of suspended particulate matter with an aerodynamic diameter of less than 10 micrometres (µm) (PM10) of 150 micrograms per cubic metre over a 24 hour averaging time at a sensitive place downwind, when monitored in accordance with:
 - (i) Australian Standard AS 3580.9.6 Methods for sampling and analysis of ambient air – Determination of particulate matter – PM (sub) 10 high-volume sampler with size-selective inlet - Gravimetric method; or
 - (ii) any alternative method of monitoring PM10 which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.
- (B1-3) Dust or other particulate monitoring must be undertaken as directed by the administering authority to investigate any complaint of dust nuisance being caused by the ERA, which complaint in the opinion of an authorised person is not frivolous, vexatious nor based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. Monitoring must be carried out at a site relevant to the potentially affected sensitive place and at upwind control site(s) and must include:
- (a) for a complaint alleging dust nuisance, dust deposition; and
 - (b) for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of suspended PM10 over a 24hr averaging time.
- (B1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by dust or other particulate matter from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement abatement measures so that emission of dust or other particulate matter from the ERA does not result in further environmental nuisance.

Odour nuisance

- (B2-1) Subject to condition (B2-2), the release of noxious or offensive odour or any other noxious or offensive airborne contaminant resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B2-2) Odour monitoring must be undertaken as directed by the administering authority to investigate any complaint of odour nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring.
- (B2-3) If an authorised person's opinion based on monitoring results or otherwise indicates that environmental nuisance is being caused by odour from the ERA, the authority holder must:

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- (a) address the complaint including the use of appropriate dispute resolution if required; or
- (b) immediately implement odour abatement measures so that emission of odour from the ERA does not result in further environmental nuisance.

END OF CONDITIONS FOR SCHEDULE B

Schedule C – Water**Management of Stormwater**

- (C1-1) Stormwater runoff from the site must be managed in accordance with the following hierarchy:
- (a) avoidance – eg. prevent the amount of contaminated stormwater generated;
 - (b) reuse – eg. reuse contaminated stormwater;
 - (c) recycle – eg. treat contaminated stormwater for reuse; and
 - (d) disposal – eg. dispose of contaminated stormwater in a way that causes the least environmental harm and in accordance with the conditions of this authority.
- (C1-2) Erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment to any waters outside the site.
- (C1-3) The storage design criteria of any stormwater containment dam must be sufficient to contain the runoff expected from a 1 in 10 year AEP 24 hour rainfall event.

Release to waters

- (C2-1) Stormwater runoff from disturbed areas on the site must only be released to waters outside the site from the release points shown in Schedule I and listed in Schedule C – Table 1. Release of stormwater is permitted from the release points if caused by a rainfall event in excess of, or equal to, a 1 in 10 year AEP 24 hour rainfall event, for a period of no longer than 24 hours after cessation of the rainfall event, or otherwise when water is in compliance with the release limits stated in Schedule C - Table 2.

Schedule C - Table 1 (Release points)

Release point	Easting (AMG)	Northing (AMG)
① - ML 1100	496 125	6951 125
② - ML1100	496 500	6950 250
③ - ML4622	483 500	6943 250
④ - ML4622	483 625	6944 125
⑤ - ML1106	496 000	6978 125

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Schedule C - Table 2 (Release limits)

Parameter	Units	Minimum	Maximum
pH	-	6.5	8.5
Total Suspended Solids	mg/L	-	50
Conductivity	µs/cm	-	1500

- (C2-2) Contaminants must not be released from the site to any waters or to the bed and banks of any waters outside the site except in accordance with condition (C2-1).

END OF CONDITIONS FOR SCHEDULE C

Schedule D - Noise

Noise nuisance

- (D1-1) Subject to conditions (D1-2) and (D1-3), noise from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (D1-2) Noise monitoring must be undertaken as directed by the administering authority to investigate any complaint of noise nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. For the purposes of this condition, noise monitoring must be done in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual* and include:
- $L_{A, \max \text{ adj, T}}$;
 - relevant background sound level;
 - the level and frequency of occurrence of impulsive or tonal noise;
 - atmospheric conditions including wind speed and direction; and
 - location, date and time of recording.
- (D1-3) For the purposes of condition (D1-1), the ERA will not cause environmental nuisance where noise from the ERA does not exceed the limits specified in Schedule D - Table 1.
- (D1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by noise from the ERA, the authority holder must:
- address the complaint including the use of appropriate dispute resolution if required; or
 - immediately implement noise abatement measures so that emissions of noise from the ERA do not result in further environmental nuisance.

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Schedule D - Table 1 (Noise limits) *

Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
	Noise measured at a 'Noise sensitive place'					
L _A , max adj, T	Background + 5 dB(A)	Background + 5 dB(A)	Background +3 dB(A)	Background +3 dB(A)	Background +0 dB(A)	Background + 0 dB(A)
	Noise measured at a 'Commercial place'					
L _A , max adj, T	Background + 10 dB(A)	Background + 10 dB(A)	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)

Where "T" is 10 minutes and "Background" means background sound pressure level measured in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual*.

* Schedule D Table 1 does not purport to set operating hours for the ERA.

END OF CONDITIONS FOR SCHEDULE D

Schedule E – Waste

There are no conditions prescribed for this schedule.

END OF CONDITIONS FOR SCHEDULE E

Schedule F – Land

Buffer zones

- (F1-1) There must be no mining activities in the buffer zones shown on Figures 2 and 3 in Schedule I hereof other than for environmental control works (eg. noise bunds), access or provision of services and excepting for abutting mining lease boundaries where the mining leases are held by the holder of this environmental authority.

Rehabilitation landform criteria

- (F2-1) All areas significantly disturbed by mining activities must be rehabilitated in accordance with Schedule F – Table 1.

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

Tenure ID	Disturbance Area (ha)	Rehabilitation Outcome
ML1100	48.35	Residential
ML1158	5.67	Residential
ML50121	0.95	Residential
ML1106	21.48	Rural or Residential
ML1171	12.75	Rural or Residential
ML50183	2.05	Rural or Residential
ML4622	38.60	Industrial (landfill)
ML50116	12.95	Industrial (landfill)
ML50117	10.67	Industrial (landfill)

Rehabilitation outcomes acceptance criteria (Industrial and Residential)

- (F3-1) For the purposes of Schedule F – Table 1, significantly disturbed land nominated for an industrial or residential rehabilitation outcome will be considered rehabilitated when the land is stabilised and does not, or will not, have potential to cause environmental harm.
- (F3-2) Despite condition (F3-1) and pending approval for surrender of this authority, the use of significantly disturbed land and/or mine voids remaining at the end of mine life for an industrial or residential rehabilitation outcome is subject to the operation of relevant legislation (eg. *Integrated Planning Act 1997*).
- (F3-3) Where requisite statutory approval(s) for a final land use and rehabilitation outcome described in Schedule F - Table 1 are not obtained, an alternative rehabilitation outcome must be nominated to the administering authority.

Rehabilitation outcomes acceptance criteria (Rural)

- (F4-1) For the purposes of Schedule F - Table 1, complete an investigation into rehabilitation of significantly disturbed areas nominated for rural rehabilitation outcome and submit a report to the administering authority proposing relevant rehabilitation acceptance criteria by 30 June 2009.
- (F4-2) All relevant areas significantly disturbed by the ERA must be rehabilitated in accordance with the acceptance criteria prescribed in the report required by condition (F4-1) as may be modified by the administering authority. Where no such modification is notified by the administering authority to the authority holder within six months of receipt of the report, then the acceptance criteria prescribed in the report will apply.

Progressive rehabilitation

- (F5-1) The top layer and sub layers of the soil profile must be removed and stockpiled separately and retained for the purpose of rehabilitation of significantly disturbed areas.
- (F5-2) Commence progressive rehabilitation of significantly disturbed areas as soon as practicable or when:

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- (a) the economic potential of the mineral resource in an area has been exhausted;
- (b) an area is no longer required for the continuation of the mining activities; and
- (c) an area is of no further beneficial use to the mining operation.

Infrastructure

- (F6-1) All infrastructure for the ERA including water storage structures, must be removed from the site prior to surrender hereof, except where otherwise agreed to in writing by the land owner and Mining Registrar at the relevant time.

NOTE: This condition is not applicable to the landowner also being the environmental authority holder at the relevant time.

END OF CONDITIONS FOR SCHEDULE F

Schedule G – Community

Complaint response

- (G1-1) All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.

END OF CONDITIONS FOR SCHEDULE 1G

Schedule H - Definitions

Definitions

- (H1-1) Words and phrases used in this authority are defined in Schedule H – Definitions. Where a definition for a term used in this authority is sought and the term is not defined herein, the definitions in the Environmental Protection Act 1994, regulations made under that Act, Environmental Protection Policies as amended from time to time or ordinary meaning must be used.

Interpretation

"EMOS" means the Environmental Management Overview Strategy report titled "Boral Bricks Pty Ltd Brisbane District Operations Environmental Management Overview Strategy" dated January 2003. Where required, interpretation of this environmental authority should be in the context of the EMOS.

"acceptance criteria" means the standards by which the actions implemented to rehabilitate land are deemed to be complete. The acceptance criteria relate to 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:

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- 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 collembola, 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; and
- vegetation water use and effects on ground water levels and catchment yields.

"AEP" means "annual exceedence probability" in relation to a given rainfall event, is the probability that the given event will be exceeded within a one year period. The AEP is usually expressed as "1 in n" (years) or as a percentage. The *given rainfall event* comprises a stated depth of rainfall received during a stated period: for example, 750 mm in one year, or 95 mm in 24 hours. If the 24-hour rainfall event having an AEP of 5% is, say, 120 mm, this means that for each year there will be 5% chance that the 24-hour rainfall will be 120 mm, or greater. Another way of expressing this is to say the Average Recurrence Interval is 20 years (Note that this does not mean only 1 occurrence in every 20 years, or only 5 occurrences per century).

"administering authority" means the Environmental Protection Agency or its successor.

"annual return" means the return required by the annual notice (under section 316 of the Environment Protection Act, 1994) for an environmental authority.

"approval" means development permit or preliminary approval decision notice or referral agency response under the Integrated Planning Act 1997.

"authorised place" means the place, land or premises authorised under this authority or approval for the carrying out of the specified environmentally relevant activities.

"authority" means level 1 licence, level 1 approval, level 2 approval or environmental authority (mining activities) under the Environmental Protection Act 1994.

"commercial place" means a place used as an office or for business or commercial purposes other than such a place on the land the subject of this environmental authority.

"competent person" means a person with sufficient demonstrated skill, knowledge and qualifications required to carry out a task to a necessary standard for protection of the environment.

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

"disturbed areas" or words to that effect means areas that comprise the active mine area, the process plant and the tailings area.

"dwelling" means any of the following structures or vehicles that is principally used as a place for human habitation-

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land; and
- a water craft in a marina.

"authority holder" means the person to whom an environmental authority is issued or transferred to, or a person acting under an environmental authority.

"environmental harm" has the meaning given in the *Environmental Protection Act 1994*.

"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.

"intrusive noise" means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration -

- is clearly audible to, or can be felt by, an individual; and
- annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, reference should be made to Australian Standard 1055.2 - 1997 Acoustics - Description and Measurement of Environmental Noise Part 2 - Application to Specific Situations.

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

" $L_{A 1, \text{adj}, 10 \text{ mins}}$ " 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.

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

"land" includes waters and the atmosphere.

"mg/L" means milligrams per litre.

"noise sensitive place" means -

- a dwelling, mobile home or caravan park, residential marina or other residential premises;
- a motel, hotel or hostel;
- a kindergarten, school, university or other educational institution;
- a medical centre or hospital;
- a protected area; and
- a park or gardens;

and includes the curtilage of any such place.

"noxious" means harmful or injurious to health or physical well being.

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

"progressive rehabilitation" means rehabilitation (defined below) undertaken progressively or in stages as mining activities or operations are ongoing.

"protected area" means -

- a protected area under the Nature Conservation Act 1992;
- a marine park under the Marine Parks Act 1992; and
- a World Heritage Area.

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

"rehabilitation" means the process of reshaping and revegetating land to restore it to a stable post mining state and in accordance with the acceptance criteria, 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 to different phases of mining activities.

"sensitive place" means;

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises excluding accommodation for persons engaged in the mining activities;
- a motel, hotel or hostel;
- an educational institution;
- a medical centre or hospital;
- a public park or gardens (including a protected area); and

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- a commercial place;

and includes the curtilage of any such place.

"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.

"significantly disturbed" or words to that effect means -

(a) contaminated land; or

(b) land that has been disturbed and human intervention is needed to rehabilitate it;

(i) including:

- 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;
- areas where land use suitability or capability has been diminished;
- areas within waters where mining activities occur;
- areas submerged by tailings or hazardous contaminant storage dams in all cases;
- areas under temporary infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be removed after mining has ceased; and

(ii) not including:

- areas off mining 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 administering authority, areas previously significantly disturbed which have not achieved the rehabilitation objectives due to circumstances beyond the control of the authority holder (such as climatic conditions);
- areas under permanent infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be lawfully left on the site post authority surrender.
- disturbances that pre-existed the grant of the mining tenure unless those areas are disturbed during the term of the tenure.

"site" means the place or premises to which this authority or approval relates.

"stable" means geotechnical stability of a rehabilitated landform where instability caused by settlement and subsidence has ceased.

"µs/cm" means micro semen per centimetre.

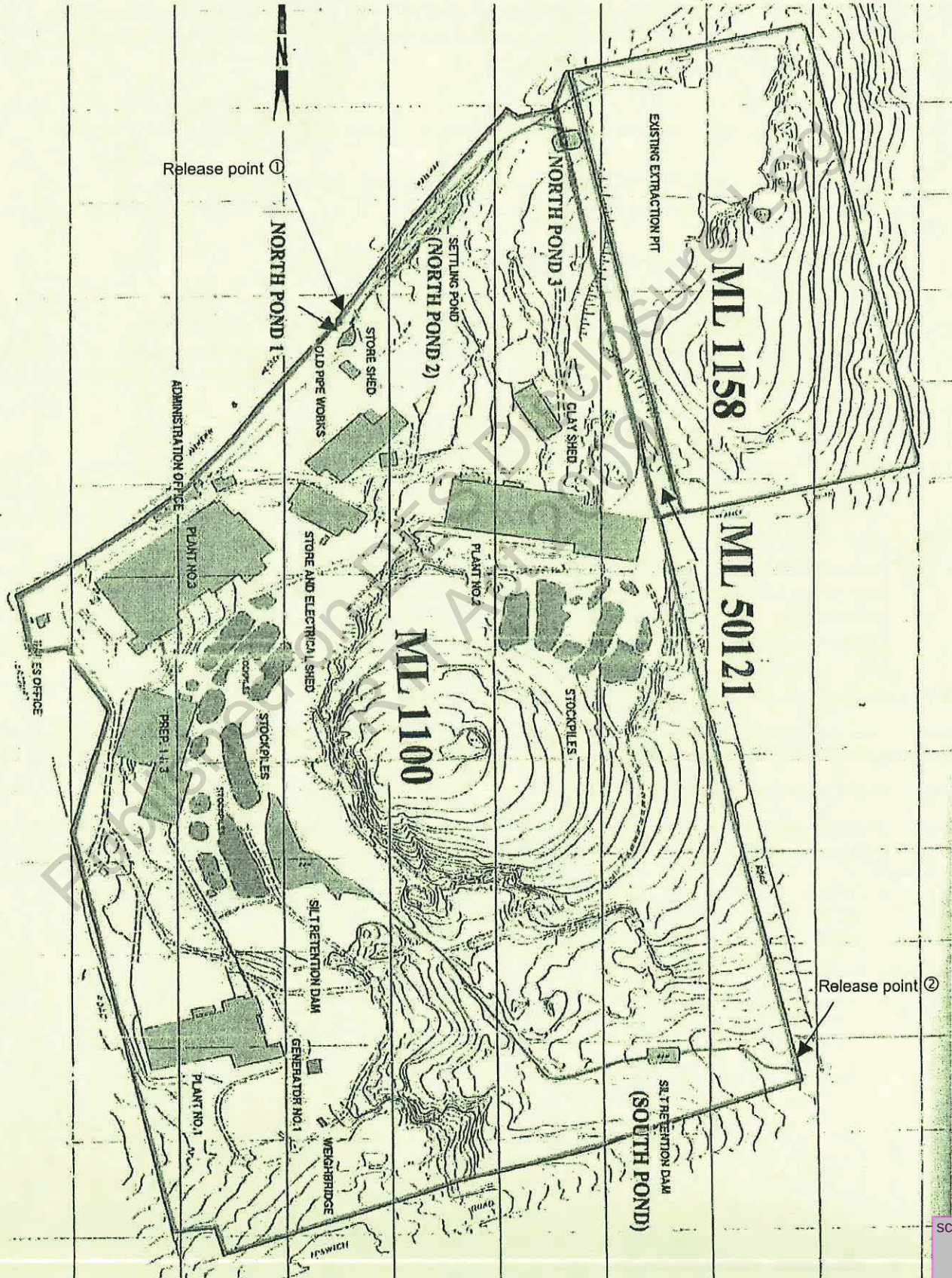
"waters" includes any watercourse, lake, lagoon, pond, swamp, wetland, bed and bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off or groundwater.

END OF CONDITIONS FOR SCHEDULE 1H

Schedule I – Maps / Plans

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Figure 1 – Darra



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Figure 2 – Redbank Plains

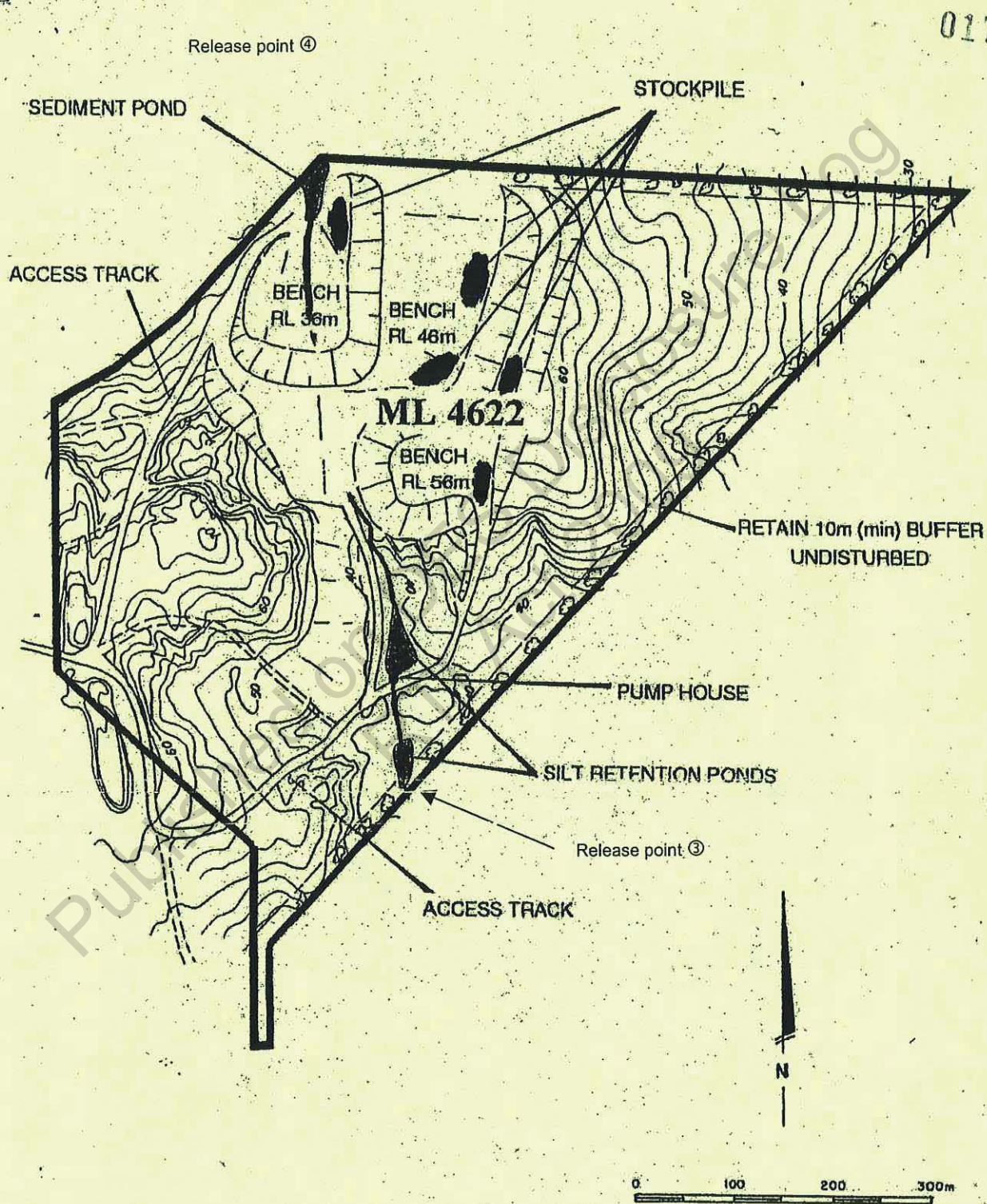
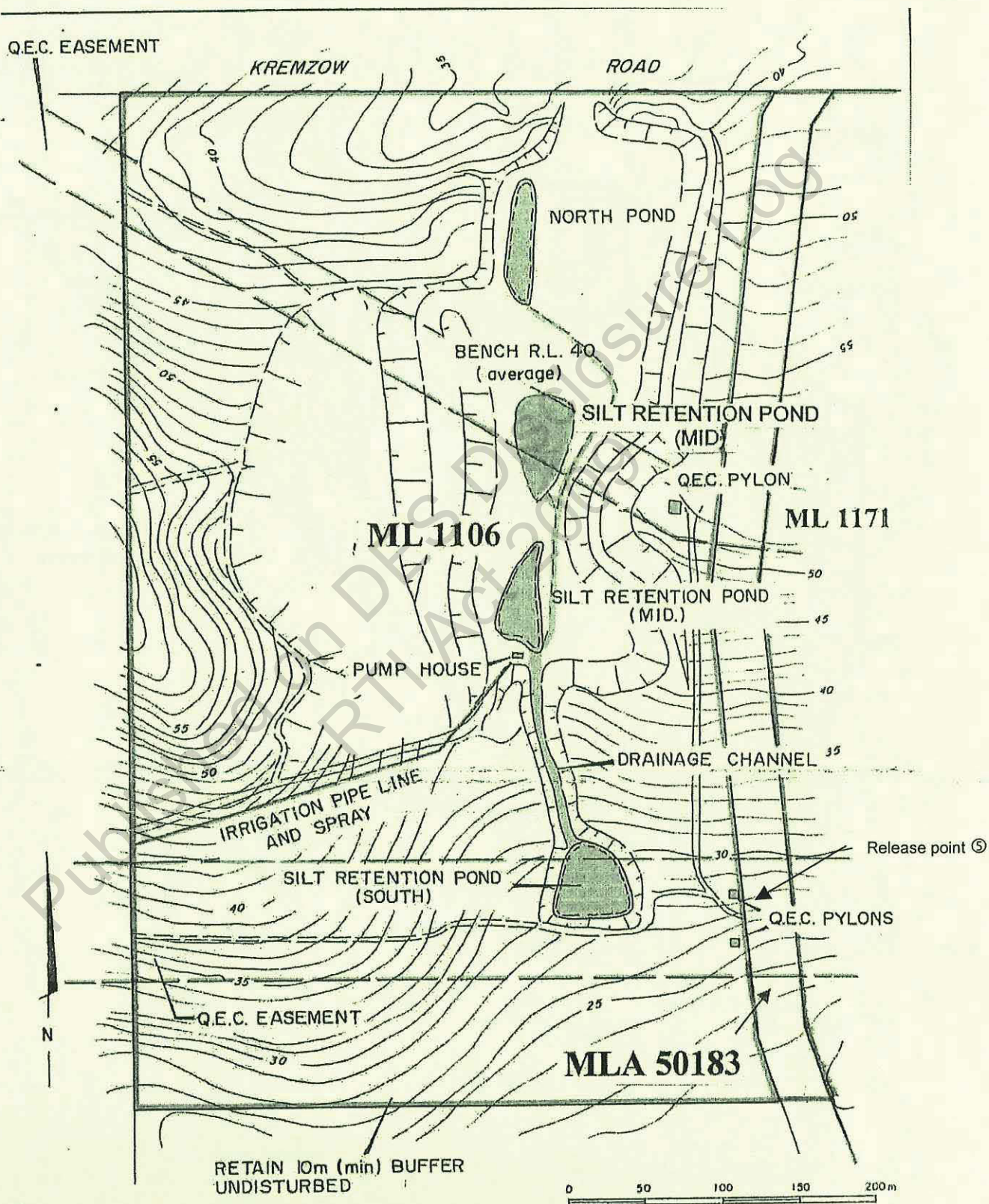


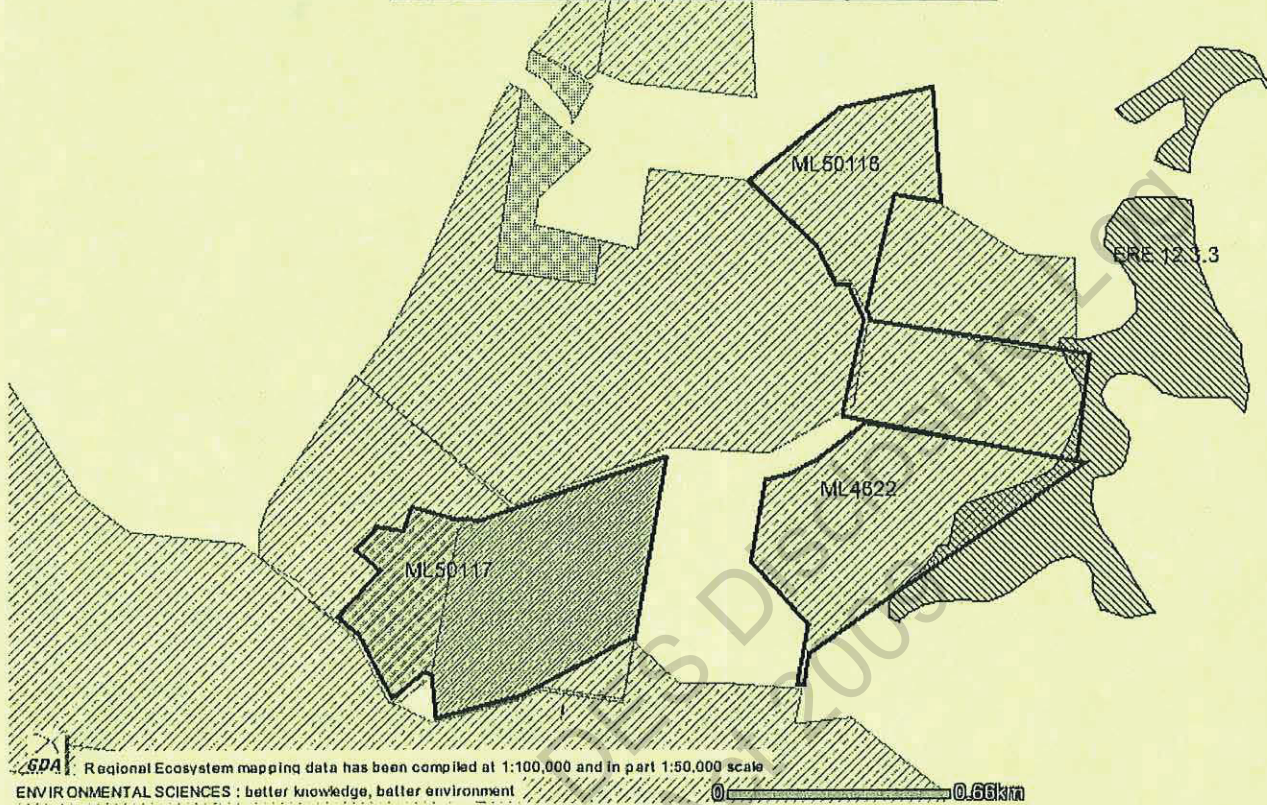
Figure 3 – Strathpine



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Figure 4 – Endangered Regional Ecosystem 12.3.3



END OF CONDITIONS

END OF ENVIRONMENTAL AUTHORITY



**Queensland
Government**

Enquiries Rebecca McAuley
Telephone (07) 3225 8399
Our reference STH5149/M1241 Project ref: 175186

Environmental Protection Agency

Incorporating the
Queensland Parks and Wildlife Service

30 June 2004

Mining Registrar
Department of Natural Resources & Mines
PO BOX 1475
COORPAROO QLD 4151

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Dear Sir

Please find attached a copy of Environmental Authority M1241 issued to Boral Bricks Pty Ltd to conduct mining activities on mining lease 1106, 1171, 1100, 1158, 50121, 4622, 50116, 50117, 50183 for your records.

If you require further information please contact, Rebecca McAuley on (07) 3225 8399.

Yours sincerely

sch4p4(6) Personal information

Ian Pepper
A/Manager (Licenses)
Southern Region EPA



**Queensland
Government**

Enquiries Rebecca McAuley
Telephone (07) 3225 8399
Our reference STH5149/M1241 Project ref: 175186

Environmental Protection Agency

Incorporating the
Queensland Parks and Wildlife Service

30 June 2004

Boral Bricks Pty Ltd
PO Box 3062
DARRA QLD 4076

01753

Attention: sch4p4(6) Personal in

Dear Sir

Please find attached a copy of Environmental Authority M1241 issued to Boral Bricks Pty Ltd to conduct mining activities on mining lease 1106, 1171, 1100, 1158, 50121, 4622, 50116, 50117, 50183 for your records.

If you require further information please contact, Rebecca McAuley on (07) 3225 8399.

Yours sincerely

sch4p4(6) Personal informa

Ian Pepper
A/Manager (Licensing,
Southern Region EPA



Queensland Government

**Environmental Protection Agency
Queensland Parks and Wildlife Service**

Environmental Authority No. M1241 (mining activities)

Section 240 *Environmental Protection Act 1994*

01762

This environmental authority is granted under the Environmental Protection Act 1994 and includes conditions. An environmental authority (mining activities) may be for mining activities authorised (under the Mineral Resources Act 1989) to occur under one of the following mining tenements: a prospecting permit; mining claim; exploration permit; mineral development licence; or mining lease. In general, a mining activity means: prospecting, exploring, mining; or processing minerals; remediation and rehabilitation.

Under the provisions of the *Environmental Protection Act 1994* this environmental authority is issued to:

Boral Bricks Pty Ltd
c/- Boral Limited
Level 39, 50 Bridge Street
SYDNEY NSW 2000

in respect of carrying out mining activities as part of the following mining project:

Type of environmental authority (mining activities)	Authorised mining tenements	Location
Mining Lease	1100, 1158, 50121	Darra
Mining Lease	4622, 50116, 50117	Redbank Plains
Mining Lease	1106, 1171, 50183	Strathpine

Pursuant to section 18(a) of the *Environmental Protection Act 1994* the above-described mining activities are an environmentally relevant activity ("ERA"). Those mining activities are hereby authorised to the extent defined in section 12(b) of Division 2, Part 2, Schedule 6 of the *Environmental Protection Regulation 1998* as follows:

Mining activities, other than a standard mining activity, carried out using equipment and plant having a mineral ore throughput of more than 100 000t, but less than 500 000t, a year.

This environmental authority is subject to the conditions set out in the attached schedules.

The anniversary date of this environmental authority is 19 December.

This amended environmental authority takes effect from 30 June 2004.

sch4p4(6) Personal information

9/7/04

Date

D J Brown
Manager (Licensing)
Brisbane District, Southern Region
Delegate of Administering Authority
Environmental Protection Act 1994

PART 1 - ENVIRONMENTAL AUTHORITY (MINING LEASE) – (Section 258 *Environmental Protection Act 1994*)

This part is for carrying out an environmental authority (mining activities) for a mining lease under chapter 5, parts 1, 2 and 6 of the Environmental Protection Act 1994.

Schedule A - General conditions

Prevent or minimise likelihood of environmental harm

- (A1-1) In carrying out the ERA the authority holder must take reasonable and practicable measures to prevent or minimise the likelihood of environmental harm being caused. Any ERA that, if carried out incompetently or negligently may cause environmental harm, shall be carried out in a proper manner in accordance with the conditions of this authority.

Note. This authority authorises the ERA. It does not authorise environmental harm unless a condition hereof explicitly authorises that harm. Where there is no such condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

Maintenance of measures, plant and equipment

- (A2-1) The authority holder must:
- (a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this authority;
 - (b) maintain such measures, plant and equipment in a proper and efficient condition; and
 - (c) operate such measures, plant and equipment in a proper and efficient manner.

Monitoring

- (A3-1) Record, compile and keep for a minimum of five years the results of all monitoring required by this authority and make those records available for inspection upon request by the administering authority.
- (A3-2) Where monitoring is required by this authority, ensure that a competent person conducts all monitoring.

Storage and handling of flammable or combustible liquids

- (A4-1) Spillage of any flammable or combustible liquids must be contained on the site and rectified whereby environmental harm other than of a trivial nature is not caused.
- (A4-2) All petroleum product storage must be designed, constructed and maintained in accordance with Australian Standard 1940 - Storage and Handling of Flammable or Combustible Liquids.

Financial assurance

- (A5-1) Provide a financial assurance in the amount and form required by the administering authority prior to the commencement of the ERA.

NOTE: The calculation of financial assurance for condition (A5-1) must be in accordance with EPA Guideline 17 *Financial Assurance for Mining Activities* and may include a performance discount. The financial assurance amount is defined as the maximum total rehabilitation cost for complete rehabilitation of all significantly disturbed areas, which may vary on an annual basis due to progressive rehabilitation. The amount required for the financial assurance must be the highest Total Rehabilitation Cost calculated for any year of the Plan of Operations and calculated using the formula: Financial Assurance = Highest Total Annual Rehabilitation Cost x Percentage Required.

- (A5-2) The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely.

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

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Environmentally sensitive areas

- (A6-1) Mining activities must not be carried out in Endangered Regional Ecosystem 12.3.3 as shown on Figure 4 in Schedule I hereof.

END OF CONDITIONS FOR SCHEDULE A

Schedule B – Air

Dust nuisance

- (B1-1) The release of dust or other particulate matter resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B1-2) For the purposes of condition (B1-1), the ERA will not cause environmental nuisance where dust or other particulate matter resulting from the ERA does not exceed the following limits when measured at any sensitive place:
- (a) dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard 3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulates – Deposited matter – Gravimetric method ; or
 - (b) a concentration of suspended particulate matter with an aerodynamic diameter of less than 10 micrometres (µm) (PM10) of 150 micrograms per cubic metre over a 24 hour averaging time at a sensitive place downwind, when monitored in accordance with:
 - (i) Australian Standard AS 3580.9.6 Methods for sampling and analysis of ambient air – Determination of particulate matter – PM (sub) 10 high-volume sampler with size-selective inlet - Gravimetric method; or
 - (ii) any alternative method of monitoring PM10 which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.
- (B1-3) Dust or other particulate monitoring must be undertaken as directed by the administering authority to investigate any complaint of dust nuisance being caused by the ERA, which complaint in the opinion of an authorised person is not frivolous, vexatious nor based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. Monitoring must be carried out at a site relevant to the potentially affected sensitive place and at upwind control site(s) and must include:
- (a) for a complaint alleging dust nuisance, dust deposition; and
 - (b) for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of suspended PM10 over a 24hr averaging time.
- (B1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by dust or other particulate matter from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement abatement measures so that emission of dust or other particulate matter from the ERA does not result in further environmental nuisance.

Odour nuisance

- (B2-1) Subject to condition (B2-2), the release of noxious or offensive odour or any other noxious or offensive airborne contaminant resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B2-2) Odour monitoring must be undertaken as directed by the administering authority to investigate any complaint of odour nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring.
- (B2-3) If an authorised person's opinion based on monitoring results or otherwise indicates that environmental nuisance is being caused by odour from the ERA, the authority holder must:

- (a) address the complaint including the use of appropriate dispute resolution if required; or
- (b) immediately implement odour abatement measures so that emission of odour from the ERA does not result in further environmental nuisance.

END OF CONDITIONS FOR SCHEDULE B

Schedule C – Water**Management of Stormwater**

- (C1-1) Stormwater runoff from the site must be managed in accordance with the following hierarchy:
- (a) avoidance – eg. prevent the amount of contaminated stormwater generated;
 - (b) reuse – eg. reuse contaminated stormwater;
 - (c) recycle – eg. treat contaminated stormwater for reuse; and
 - (d) disposal – eg. dispose of contaminated stormwater in a way that causes the least environmental harm and in accordance with the conditions of this authority.
- (C1-2) Erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment to any waters outside the site.
- (C1-3) The storage design criteria of any stormwater containment dam must be sufficient to contain the runoff expected from a 1 in 10 year AEP 24 hour rainfall event.

Release to waters

- (C2-1) Stormwater runoff from disturbed areas on the site must only be released to waters outside the site from the release points shown in Schedule I and listed in Schedule C – Table 1. Release of stormwater is permitted from the release points if caused by a rainfall event in excess of, or equal to, a 1 in 10 year AEP 24 hour rainfall event, for a period of no longer than 24 hours after cessation of the rainfall event, or otherwise when water is in compliance with the release limits stated in Schedule C - Table 2.

Schedule C - Table 1 (Release points)

Release point	Easting (AMG)	Northing (AMG)
① - ML 1100	496 125	6951 125
② - ML1100	496 500	6950 250
③ - ML4622	483 500	6943 250
④ - ML4622	483 625	6944 125
⑤ - ML1106	496 000	6978 125

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Schedule C - Table 2 (Release limits)

Parameter	Units	Minimum	Maximum
pH	-	6.5	8.5
Total Suspended Solids	mg/L	-	50
Conductivity	µs/cm	-	1500

- (C2-2) Contaminants must not be released from the site to any waters or to the bed and banks of any waters outside the site except in accordance with condition (C2-1).

END OF CONDITIONS FOR SCHEDULE C

Schedule D - Noise

Noise nuisance

- (D1-1) Subject to conditions (D1-2) and (D1-3), noise from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (D1-2) Noise monitoring must be undertaken as directed by the administering authority to investigate any complaint of noise nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. For the purposes of this condition, noise monitoring must be done in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual* and include:
- $L_{A, \max \text{ adj, T}}$;
 - relevant background sound level;
 - the level and frequency of occurrence of impulsive or tonal noise;
 - atmospheric conditions including wind speed and direction; and
 - location, date and time of recording.
- (D1-3) For the purposes of condition (D1-1), the ERA will not cause environmental nuisance where noise from the ERA does not exceed the limits specified in Schedule D - Table 1.
- (D1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by noise from the ERA, the authority holder must:
- address the complaint including the use of appropriate dispute resolution if required; or
 - immediately implement noise abatement measures so that emissions of noise from the ERA do not result in further environmental nuisance.

Schedule D - Table 1 (Noise limits) *

Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
	Noise measured at a 'Noise sensitive place'					
$L_{A, \max \text{ adj, T}}$	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)	Background + 0 dB(A)	Background + 0 dB(A)
	Noise measured at a 'Commercial place'					
$L_{A, \max \text{ adj, T}}$	Background + 10 dB(A)	Background + 10 dB(A)	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)

Where "T" is 10 minutes and "Background" means background sound pressure level measured in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual*.

* Schedule D Table 1 does not purport to set operating hours for the ERA.

END OF CONDITIONS FOR SCHEDULE D

Schedule E – Waste

There are no conditions prescribed for this schedule.

END OF CONDITIONS FOR SCHEDULE E

Schedule F – Land

Buffer zones

- (F1-1) There must be no mining activities in the buffer zones shown on Figures 2 and 3 in Schedule I hereof other than for environmental control works (eg. noise bunds), access or provision of services and excepting for abutting mining lease boundaries where the mining leases are held by the holder of this environmental authority.

Rehabilitation landform criteria

- (F2-1) All areas significantly disturbed by mining activities must be rehabilitated in accordance with Schedule F – Table 1.

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

Tenure ID	Disturbance Area (ha)	Rehabilitation Outcome
ML1100	48.35	Residential
ML1158	5.67	Residential
ML50121	0.95	Residential
ML1106	21.48	Rural or Residential
ML1171	12.75	Rural or Residential
ML50183	2.05	Rural or Residential
ML4622	38.60	Industrial (landfill)
ML50116	12.95	Industrial (landfill)
ML50117	10.67	Industrial (landfill)

Rehabilitation outcomes acceptance criteria (Industrial and Residential)

- (F3-1) For the purposes of Schedule F – Table 1, significantly disturbed land nominated for an industrial or residential rehabilitation outcome will be considered rehabilitated when the land is stabilised and does not, or will not, have potential to cause environmental harm.
- (F3-2) Despite condition (F3-1) and pending approval for surrender of this authority, the use of significantly disturbed land and/or mine voids remaining at the end of mine life for an industrial or residential rehabilitation outcome is subject to the operation of relevant legislation (eg. *Integrated Planning Act 1997*).
- (F3-3) Where requisite statutory approval(s) for a final land use and rehabilitation outcome described in Schedule F - Table 1 are not obtained, an alternative rehabilitation outcome must be nominated to the administering authority.

Rehabilitation outcomes acceptance criteria (Rural)

- (F4-1) For the purposes of Schedule F - Table 1, complete an investigation into rehabilitation of significantly disturbed areas nominated for rural rehabilitation outcome and submit a report to the administering authority proposing relevant rehabilitation acceptance criteria by 30 June 2009.
- (F4-2) All relevant areas significantly disturbed by the ERA must be rehabilitated in accordance with the acceptance criteria prescribed in the report required by condition (F4-1) as may be modified by the administering authority. Where no such modification is notified by the administering authority to the authority holder within six months of receipt of the report, then the acceptance criteria prescribed in the report will apply.

Progressive rehabilitation

- (F5-1) The top layer and sub layers of the soil profile must be removed and stockpiled separately and retained for the purpose of rehabilitation of significantly disturbed areas.
- (F5-2) Commence progressive rehabilitation of significantly disturbed areas as soon as practicable or when:

- (a) the economic potential of the mineral resource in an area has been exhausted;
- (b) an area is no longer required for the continuation of the mining activities; and
- (c) an area is of no further beneficial use to the mining operation.

Infrastructure

- (F6-1) All infrastructure for the ERA including water storage structures, must be removed from the site prior to surrender hereof, except where otherwise agreed to in writing by the land owner and Mining Registrar at the relevant time.

NOTE: This condition is not applicable to the landowner also being the environmental authority holder at the relevant time.

END OF CONDITIONS FOR SCHEDULE F

Schedule G – Community

Complaint response

- (G1-1) All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.

END OF CONDITIONS FOR SCHEDULE 1G

Schedule H - Definitions

Definitions

- (H1-1) Words and phrases used in this authority are defined in Schedule H – Definitions. Where a definition for a term used in this authority is sought and the term is not defined herein, the definitions in the Environmental Protection Act 1994, regulations made under that Act, Environmental Protection Policies as amended from time to time or ordinary meaning must be used.

Interpretation

"EMOS" means the Environmental Management Overview Strategy report titled "Boral Bricks Pty Ltd Brisbane District Operations Environmental Management Overview Strategy" dated January 2003. Where required, interpretation of this environmental authority should be in the context of the EMOS.

"acceptance criteria" means the standards by which the actions implemented to rehabilitate land are deemed to be complete. The acceptance criteria relate to 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:

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- 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 collembola, 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; and
- vegetation water use and effects on ground water levels and catchment yields.

"AEP" means "annual exceedence probability" in relation to a given rainfall event, is the probability that the given event will be exceeded within a one year period. The AEP is usually expressed as "1 in n" (years) or as a percentage. The *given rainfall event* comprises a stated depth of rainfall received during a stated period: for example, 750 mm in one year, or 95 mm in 24 hours. If the 24-hour rainfall event having an AEP of 5% is, say, 120 mm, this means that for each year there will be 5% chance that the 24-hour rainfall will be 120 mm, or greater. Another way of expressing this is to say the Average Recurrence Interval is 20 years (Note that this does not mean only 1 occurrence in every 20 years, or only 5 occurrences per century).

"administering authority" means the Environmental Protection Agency or its successor.

"annual return" means the return required by the annual notice (under section 316 of the Environment Protection Act, 1994) for an environmental authority.

"approval" means development permit or preliminary approval decision notice or referral agency response under the Integrated Planning Act 1997.

"authorised place" means the place, land or premises authorised under this authority or approval for the carrying out of the specified environmentally relevant activities.

"authority" means level 1 licence, level 1 approval, level 2 approval or environmental authority (mining activities) under the Environmental Protection Act 1994.

"commercial place" means a place used as an office or for business or commercial purposes other than such a place on the land the subject of this environmental authority.

"competent person" means a person with sufficient demonstrated skill, knowledge and qualifications required to carry out a task to a necessary standard for protection of the environment.

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

"disturbed areas" or words to that effect means areas that comprise the active mine area, the process plant and the tailings area.

"dwelling" means any of the following structures or vehicles that is principally used as a place for human habitation-

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land; and
- a water craft in a marina.

"authority holder" means the person to whom an environmental authority is issued or transferred to, or a person acting under an environmental authority.

"environmental harm" has the meaning given in the *Environmental Protection Act 1994*.

"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.

"intrusive noise" means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration -

- is clearly audible to, or can be felt by, an individual; and
- annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, reference should be made to Australian Standard 1055.2 - 1997 Acoustics - Description and Measurement of Environmental Noise Part 2 - Application to Specific Situations.

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

" $L_{A\ 1, \text{adj}, 10 \text{ mins}}$ " 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.

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

"land" includes waters and the atmosphere.

"mg/L" means milligrams per litre.

"noise sensitive place" means -

- a dwelling, mobile home or caravan park, residential marina or other residential premises;
 - a motel, hotel or hostel;
 - a kindergarten, school, university or other educational institution;
 - a medical centre or hospital;
 - a protected area; and
 - a park or gardens;
- and includes the curtilage of any such place.

"noxious" means harmful or injurious to health or physical well being.

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

"progressive rehabilitation" means rehabilitation (defined below) undertaken progressively or in stages as mining activities or operations are ongoing.

"protected area" means -

- a protected area under the Nature Conservation Act 1992;
- a marine park under the Marine Parks Act 1992; and
- a World Heritage Area.

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

"rehabilitation" means the process of reshaping and revegetating land to restore it to a stable post mining state and in accordance with the acceptance criteria, 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 to different phases of mining activities.

"sensitive place" means;

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises excluding accommodation for persons engaged in the mining activities;
- a motel, hotel or hostel;
- an educational institution;
- a medical centre or hospital;
- a public park or gardens (including a protected area); and

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- a commercial place;

and includes the curtilage of any such place.

"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.

"significantly disturbed" or words to that effect means -

(a) contaminated land; or

(b) land that has been disturbed and human intervention is needed to rehabilitate it;

(i) including:

- 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;
- areas where land use suitability or capability has been diminished;
- areas within waters where mining activities occur;
- areas submerged by tailings or hazardous contaminant storage dams in all cases;
- areas under temporary infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be removed after mining has ceased; and

(ii) not including:

- areas off mining 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 administering authority, areas previously significantly disturbed which have not achieved the rehabilitation objectives due to circumstances beyond the control of the authority holder (such as climatic conditions);
- areas under permanent infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be lawfully left on the site post authority surrender.
- disturbances that pre-existed the grant of the mining tenure unless those areas are disturbed during the term of the tenure.

"site" means the place or premises to which this authority or approval relates.

"stable" means geotechnical stability of a rehabilitated landform where instability caused by settlement and subsidence has ceased.

"µs/cm" means micro semen per centimetre.

"waters" includes any watercourse, lake, lagoon, pond, swamp, wetland, bed and bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off or groundwater.

END OF CONDITIONS FOR SCHEDULE 1H

Schedule I – Maps / Plans

Figure 1 – Darra

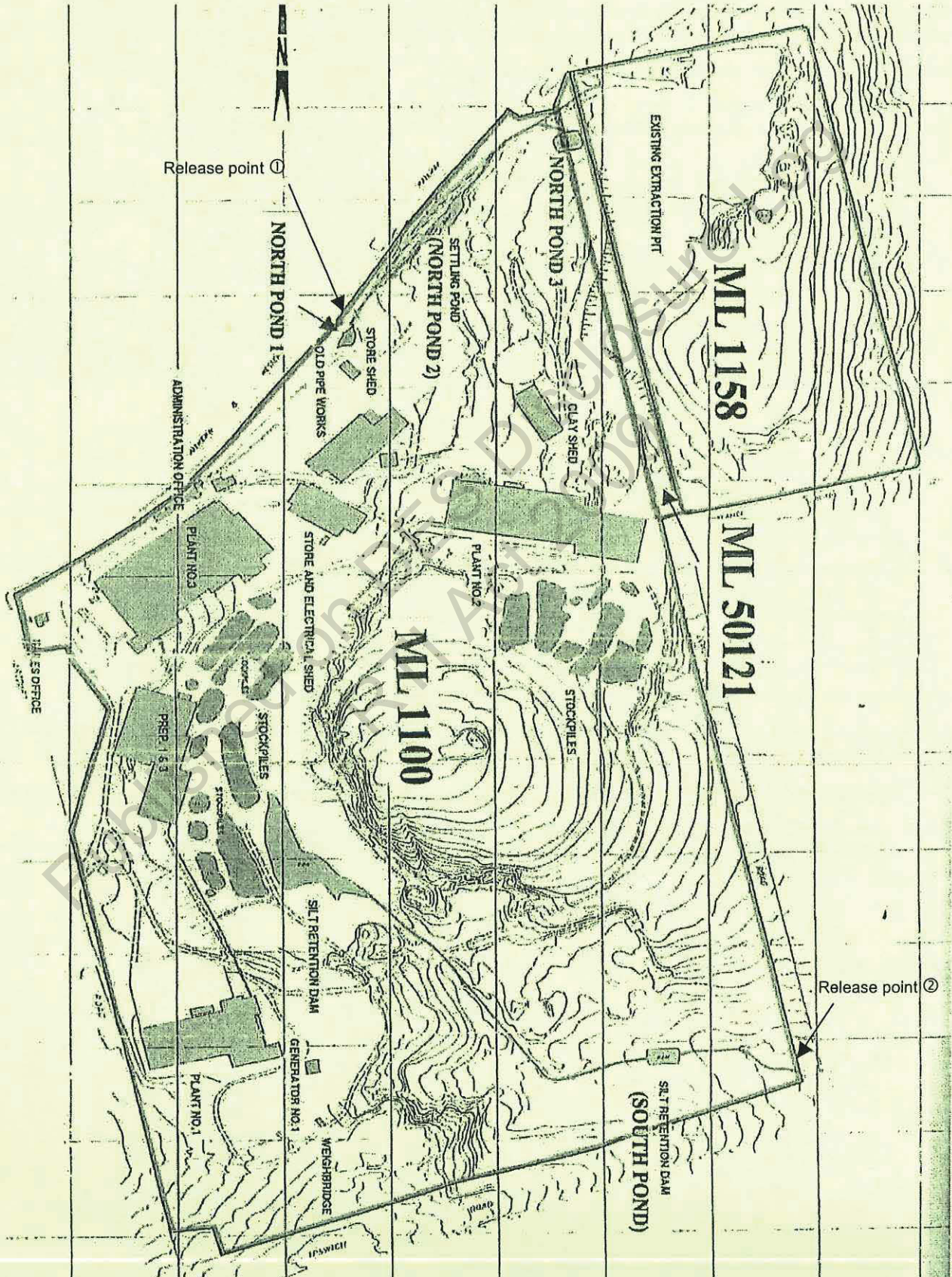


Figure 2 – Redbank Plains

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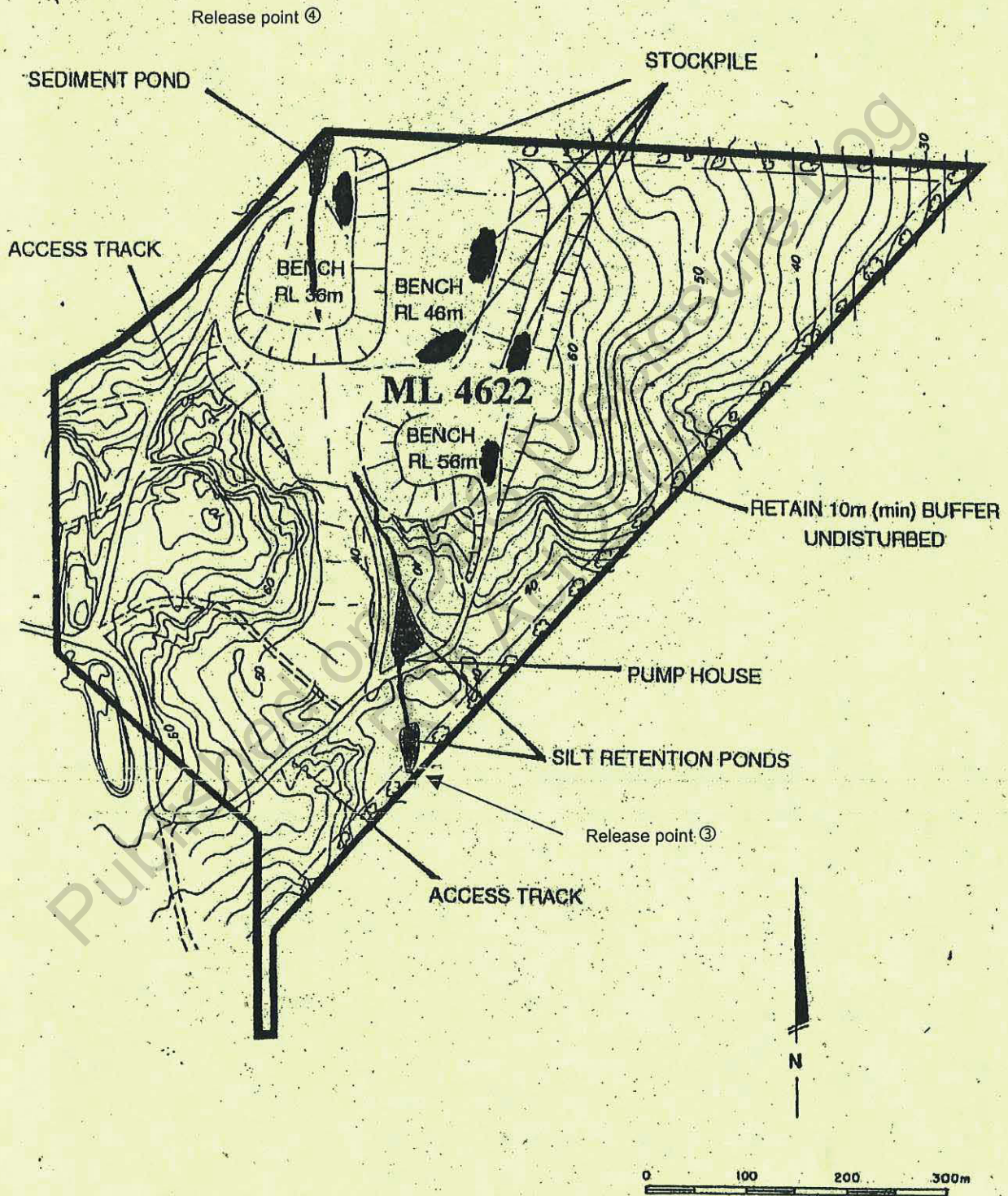
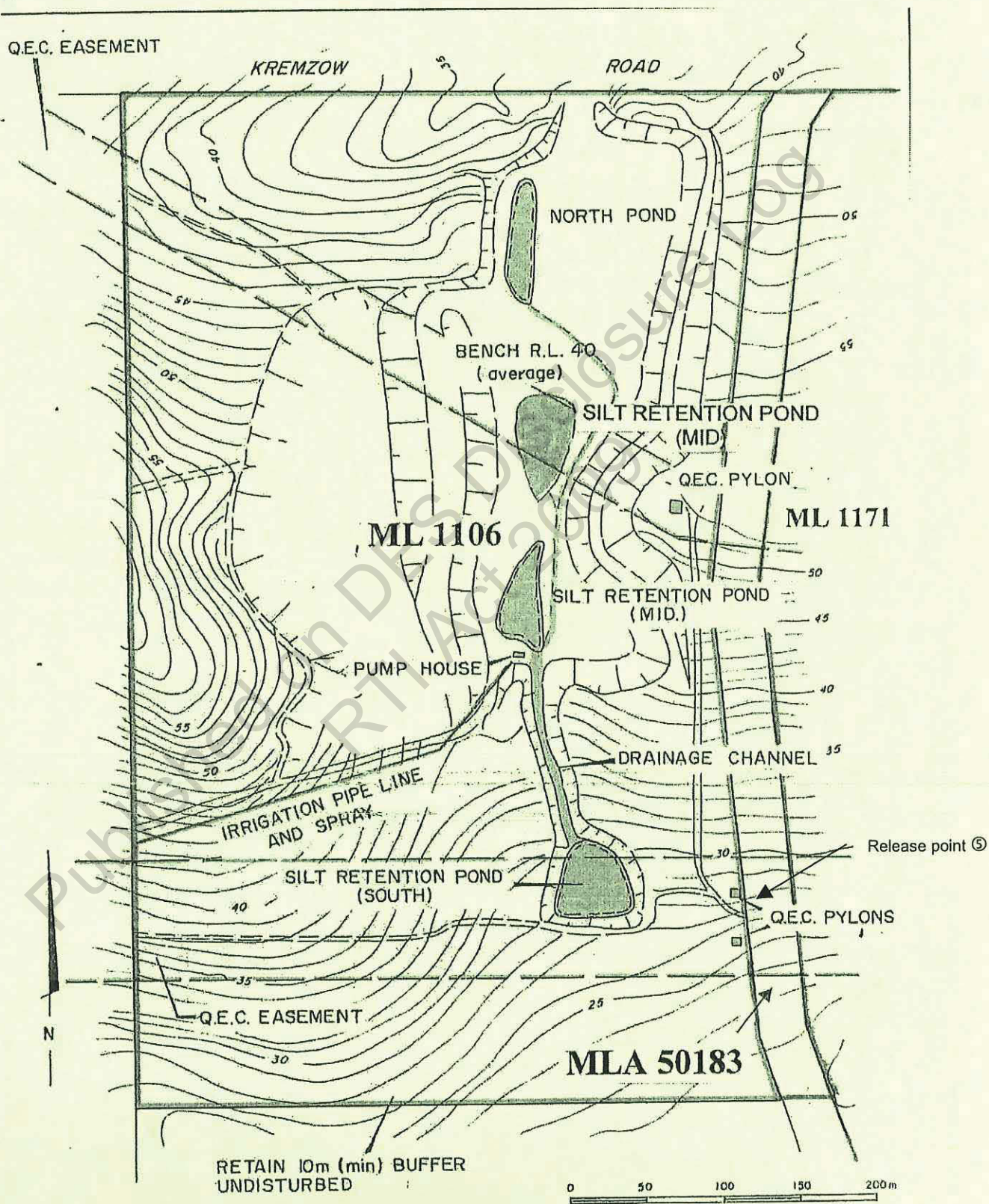
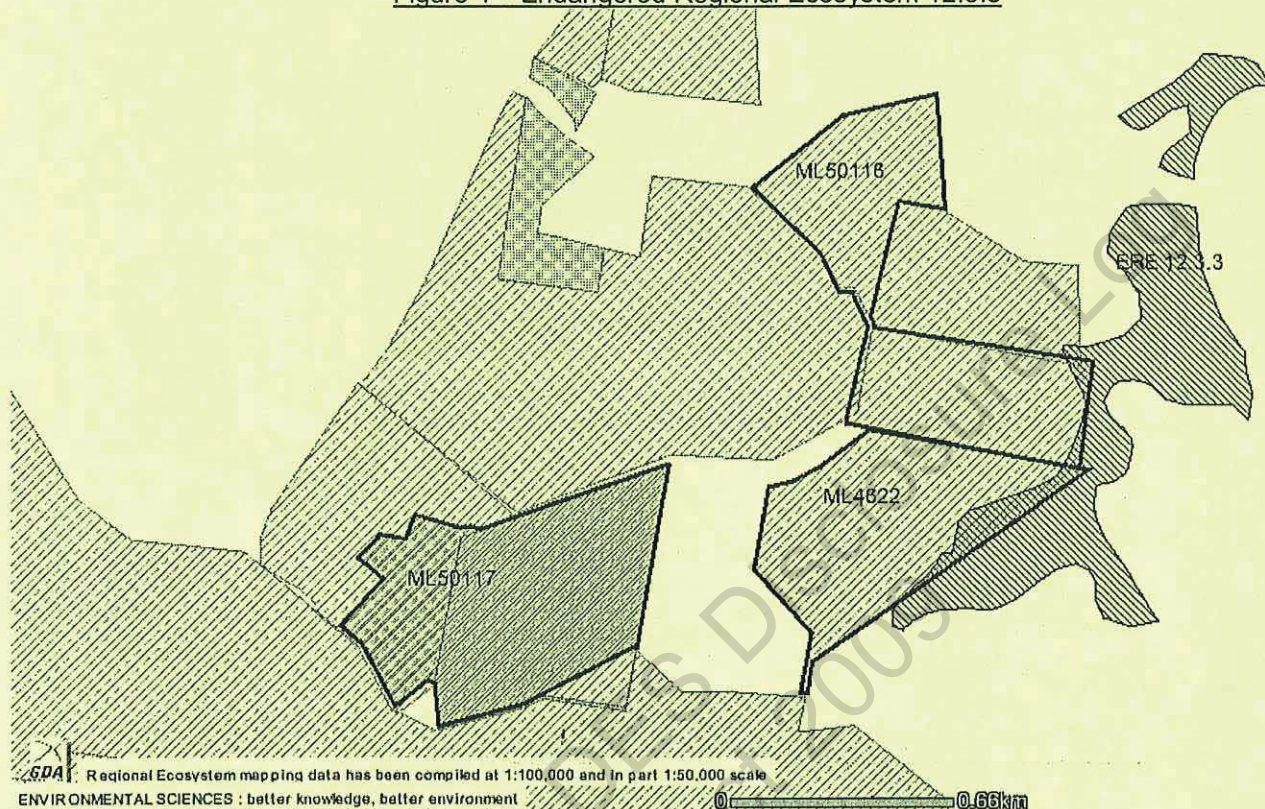


Figure 3 – Strathpine



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Figure 4 – Endangered Regional Ecosystem 12.3.3



END OF CONDITIONS

END OF ENVIRONMENTAL AUTHORITY



**Queensland
Government**

Southern Region • 288 Edward Street • Brisbane Queensland • GPO Box 2771 • BRISBANE QLD 4001 • AUSTRALIA
Telephone (07) 3224 5097 • Facsimile (07) 3225 8723 • www.env.qld.gov.au

Environmental Protection Agency

Enquiries to: Karen Francis
Telephone: (07) 3225 1062
Your Reference:
Our Reference: STH5149/M1241

Incorporating the
Queensland Parks and Wildlife Service

9 July 2004

01763

Boral Bricks Pty Ltd
PO Box 3062
DARRA QLD 4076

Dear [sch4p4(6) Personal informat

Re: Error on Amended Environmental Authority No. M1241 issued to Boral Bricks Pty Ltd for Mining Leases at Darra Redbank Plains and Strathpine dated 30 June 2004.

I refer to our correspondence sent to you on 30 June 2004.

An administrative error has occurred on the front page of Amended Environmental Authority No M1241. The anniversary date for this licence is 19 December each year and not 30 June.

The administrative error has now been corrected and a new copy of the Environmental Authority is enclosed.

I apologise for any inconvenience this has caused.

Yours sincerely

[Redacted Signature]
D J Brown
Manager (Licensing)



Queensland Government

Environmental Protection Agency
Queensland Parks and Wildlife Service

Environmental Authority No. M1241 (mining activities)

Section 240 *Environmental Protection Act 1994*

This environmental authority is granted under the Environmental Protection Act 1994 and includes conditions. An environmental authority (mining activities) may be for mining activities authorised (under the Mineral Resources Act 1989) to occur under one of the following mining tenements: a prospecting permit; mining claim; exploration permit; mineral development licence; or mining lease. In general, a mining activity means: prospecting, exploring, mining; or processing minerals; remediation and rehabilitation.

Under the provisions of the *Environmental Protection Act 1994* this environmental authority is issued to:

Boral Bricks Pty Ltd
c/- Boral Limited
Level 39, 50 Bridge Street
SYDNEY NSW 2000

in respect of carrying out mining activities as part of the following mining project:

Type of environmental authority (mining activities)	Authorised mining tenements	Location
Mining Lease	1100, 1158, 50121	Darra
Mining Lease	4622, 50116, 50117, 4583	Redbank Plains
Mining Lease	1106, 1171, 50183	Strathpine

Pursuant to section 18(a) of the *Environmental Protection Act 1994* the above-described mining activities are an environmentally relevant activity ("ERA"). Those mining activities are hereby authorised to the extent defined in section 12(b) of Division 2, Part 2, Schedule 6 of the *Environmental Protection Regulation 1998* as follows:

Mining activities, other than a standard mining activity, carried out using equipment and plant having a mineral ore throughput of more than 100 000t, but less than 500 000t, a year.

This environmental authority is subject to the conditions set out in the attached schedules.

The anniversary date of this environmental authority is 30 June.

This amended environmental authority takes effect from 24 November 2004.

sch4p4(6) Personal information

Signed

Date

24 November 2004

L Wade
Manager (Licensing)
Brisbane District, Southern Region
Delegate of Administering Authority
Environmental Protection Act 1994

PART 1 - ENVIRONMENTAL AUTHORITY (MINING LEASE) – (Section 258 *Environmental Protection Act 1994*)

This part is for carrying out an environmental authority (mining activities) for a mining lease under chapter 5, parts 1, 2 and 6 of the Environmental Protection Act 1994.

Schedule A - General conditions

Prevent or minimise likelihood of environmental harm

- (A1-1) In carrying out the ERA the authority holder must take reasonable and practicable measures to prevent or minimise the likelihood of environmental harm being caused. Any ERA that, if carried out incompetently or negligently may cause environmental harm, shall be carried out in a proper manner in accordance with the conditions of this authority.

Note. This authority authorises the ERA. It does not authorise environmental harm unless a condition hereof explicitly authorises that harm. Where there is no such condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

Maintenance of measures, plant and equipment

- (A2-1) The authority holder must:
- (a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this authority;
 - (b) maintain such measures, plant and equipment in a proper and efficient condition; and
 - (c) operate such measures, plant and equipment in a proper and efficient manner.

Monitoring

- (A3-1) Record, compile and keep for a minimum of five years the results of all monitoring required by this authority and make those records available for inspection upon request by the administering authority.
- (A3-2) Where monitoring is required by this authority, ensure that a competent person conducts all monitoring.

Storage and handling of flammable or combustible liquids

- (A4-1) Spillage of any flammable or combustible liquids must be contained on the site and rectified whereby environmental harm other than of a trivial nature is not caused.
- (A4-2) All petroleum product storage must be designed, constructed and maintained in accordance with Australian Standard 1940 - Storage and Handling of Flammable or Combustible Liquids.

Financial assurance

- (A5-1) Provide a financial assurance in the amount and form required by the administering authority prior to the commencement of the ERA.

NOTE: The calculation of financial assurance for condition (A5-1) must be in accordance with EPA Guideline 17 *Financial Assurance for Mining Activities* and may include a performance discount. The financial assurance amount is defined as the maximum total rehabilitation cost for complete rehabilitation of all significantly disturbed areas, which may vary on an annual basis due to progressive rehabilitation. The amount required for the financial assurance must be the highest Total Rehabilitation Cost calculated for any year of the Plan of Operations and calculated using the formula: Financial Assurance = Highest Total Annual Rehabilitation Cost x Percentage Required.

- (A5-2) The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely.

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

Environmentally sensitive areas

- (A6-1) Mining activities must not be carried out in Endangered Regional Ecosystem 12.3.3 as shown on Figure 4 in Schedule I hereof.

END OF CONDITIONS FOR SCHEDULE A

Schedule B – Air

Dust nuisance

- (B1-1) The release of dust or other particulate matter resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B1-2) For the purposes of condition (B1-1), the ERA will not cause environmental nuisance where dust or other particulate matter resulting from the ERA does not exceed the following limits when measured at any sensitive place:
- (a) dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard 3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulates – Deposited matter – Gravimetric method ; or
 - (b) a concentration of suspended particulate matter with an aerodynamic diameter of less than 10 micrometres (µm) (PM10) of 150 micrograms per cubic metre over a 24 hour averaging time at a sensitive place downwind, when monitored in accordance with:
 - (i) Australian Standard AS 3580.9.6 Methods for sampling and analysis of ambient air – Determination of particulate matter – PM (sub) 10 high-volume sampler with size-selective inlet - Gravimetric method; or
 - (ii) any alternative method of monitoring PM10 which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.
- (B1-3) Dust or other particulate monitoring must be undertaken as directed by the administering authority to investigate any complaint of dust nuisance being caused by the ERA, which complaint in the opinion of an authorised person is not frivolous, vexatious nor based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. Monitoring must be carried out at a site relevant to the potentially affected sensitive place and at upwind control site(s) and must include:
- (a) for a complaint alleging dust nuisance, dust deposition; and
 - (b) for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of suspended PM10 over a 24hr averaging time.
- (B1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by dust or other particulate matter from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement abatement measures so that emission of dust or other particulate matter from the ERA does not result in further environmental nuisance.

Odour nuisance

- (B2-1) Subject to condition (B2-2), the release of noxious or offensive odour or any other noxious or offensive airborne contaminant resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B2-2) Odour monitoring must be undertaken as directed by the administering authority to investigate any complaint of odour nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring.
- (B2-3) If an authorised person's opinion based on monitoring results or otherwise indicates that environmental nuisance is being caused by odour from the ERA, the authority holder must:

- (a) address the complaint including the use of appropriate dispute resolution if required; or
- (b) immediately implement odour abatement measures so that emission of odour from the ERA does not result in further environmental nuisance.

END OF CONDITIONS FOR SCHEDULE B

Schedule C – Water**Management of Stormwater**

- (C1-1) Stormwater runoff from the site must be managed in accordance with the following hierarchy:
- (a) avoidance – eg. prevent the amount of contaminated stormwater generated;
 - (b) reuse – eg. reuse contaminated stormwater;
 - (c) recycle – eg. treat contaminated stormwater for reuse; and
 - (d) disposal – eg. dispose of contaminated stormwater in a way that causes the least environmental harm and in accordance with the conditions of this authority.
- (C1-2) Erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment to any waters outside the site.
- (C1-3) The storage design criteria of any stormwater containment dam must be sufficient to contain the runoff expected from a 1 in 10 year AEP 24 hour rainfall event.

Release to waters

- (C2-1) Stormwater runoff from disturbed areas on the site must only be released to waters outside the site from the release points shown in Schedule I and listed in Schedule C – Table 1. Release of stormwater is permitted from the release points if caused by a rainfall event in excess of, or equal to, a 1 in 10 year AEP 24 hour rainfall event, for a period of no longer than 24 hours after cessation of the rainfall event, or otherwise when water is in compliance with the release limits stated in Schedule C - Table 2.

Schedule C - Table 1 (Release points)

Release point	Easting (AMG)	Northing (AMG)
① - ML 1100	496 125	6951 125
② - ML1100	496 500	6950 250
③ - ML4622	483 500	6943 250
④ - ML4622	483 625	6944 125
⑤ - ML1106	496 000	6978 125

Schedule C - Table 2 (Release limits)

Parameter	Units	Minimum	Maximum
pH	-	6.5	8.5
Total Suspended Solids	mg/L	-	50
Conductivity	µs/cm	-	1500

- (C2-2) Contaminants must not be released from the site to any waters or to the bed and banks of any waters outside the site except in accordance with condition (C2-1).

END OF CONDITIONS FOR SCHEDULE C

Schedule D - Noise

Noise nuisance

- (D1-1) Subject to conditions (D1-2) and (D1-3), noise from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (D1-2) Noise monitoring must be undertaken as directed by the administering authority to investigate any complaint of noise nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. For the purposes of this condition, noise monitoring must be done in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual* and include:
- $L_{A, \max \text{ adj, T}}$;
 - relevant background sound level;
 - the level and frequency of occurrence of impulsive or tonal noise;
 - atmospheric conditions including wind speed and direction; and
 - location, date and time of recording.
- (D1-3) For the purposes of condition (D1-1), the ERA will not cause environmental nuisance where noise from the ERA does not exceed the limits specified in Schedule D - Table 1.
- (D1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by noise from the ERA, the authority holder must:
- address the complaint including the use of appropriate dispute resolution if required; or
 - immediately implement noise abatement measures so that emissions of noise from the ERA do not result in further environmental nuisance.

Schedule D - Table 1 (Noise limits) *

Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
	Noise measured at a 'Noise sensitive place'					
L _A , max adj, T	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)	Background + 0 dB(A)	Background + 0 dB(A)
	Noise measured at a 'Commercial place'					
L _A , max adj, T	Background + 10 dB(A)	Background + 10 dB(A)	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)

Where "T" is 10 minutes and "Background" means background sound pressure level measured in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual*.

* Schedule D Table 1 does not purport to set operating hours for the ERA.

END OF CONDITIONS FOR SCHEDULE D

Schedule E – Waste

There are no conditions prescribed for this schedule.

END OF CONDITIONS FOR SCHEDULE E

Schedule F – Land

Buffer zones

- (F1-1) There must be no mining activities in the buffer zones shown on Figures 2 and 3 in Schedule I hereof other than for environmental control works (eg. noise bunds), access or provision of services and excepting for abutting mining lease boundaries where the mining leases are held by the holder of this environmental authority.

Rehabilitation landform criteria

- (F2-1) All areas significantly disturbed by mining activities must be rehabilitated in accordance with Schedule F – Table 1.

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

Tenure ID	Surface Disturbance Area (ha)	Rehabilitation Outcome
ML1100	48.35	Residential
ML1158	5.67	Residential
ML50121	0.95	Residential
ML1106	21.48	Rural or Residential
ML1171	12.75	Rural or Residential
ML50183	2.05	Rural or Residential
ML4622	38.60	Industrial (landfill)
ML50116	12.95	Industrial (landfill)
ML50117	10.67	Industrial (landfill)
ML4583	0	Industrial (landfill)

Rehabilitation outcomes acceptance criteria (Industrial and Residential)

- (F3-1) For the purposes of Schedule F – Table 1, significantly disturbed land nominated for an industrial or residential rehabilitation outcome will be considered rehabilitated when the land is stabilised and does not, or will not, have potential to cause environmental harm.
- (F3-2) Despite condition (F3-1) and pending approval for surrender of this authority, the use of significantly disturbed land and/or mine voids remaining at the end of mine life for an industrial or residential rehabilitation outcome is subject to the operation of relevant legislation (eg. *Integrated Planning Act 1997*).
- (F3-3) Where requisite statutory approval(s) for a final land use and rehabilitation outcome described in Schedule F - Table 1 are not obtained, an alternative rehabilitation outcome must be nominated to the administering authority.

Rehabilitation outcomes acceptance criteria (Rural)

- (F4-1) For the purposes of Schedule F - Table 1, complete an investigation into rehabilitation of significantly disturbed areas nominated for rural rehabilitation outcome and submit a report to the administering authority proposing relevant rehabilitation acceptance criteria by 30 June 2009.
- (F4-2) All relevant areas significantly disturbed by the ERA must be rehabilitated in accordance with the acceptance criteria prescribed in the report required by condition (F4-1) as may be modified by the administering authority. Where no such modification is notified by the administering authority to the authority holder within six months of receipt of the report, then the acceptance criteria prescribed in the report will apply.

Progressive rehabilitation

- (F5-1) The top layer and sub layers of the soil profile must be removed and stockpiled separately and retained for the purpose of rehabilitation of significantly disturbed areas.
- (F5-2) Commence progressive rehabilitation of significantly disturbed areas as soon as practicable or when:

- (a) the economic potential of the mineral resource in an area has been exhausted;
- (b) an area is no longer required for the continuation of the mining activities; and
- (c) an area is of no further beneficial use to the mining operation.

Infrastructure

- (F6-1) All infrastructure for the ERA including water storage structures, must be removed from the site prior to surrender hereof, except where otherwise agreed to in writing by the land owner and Mining Registrar at the relevant time.

NOTE: This condition is not applicable to the landowner also being the environmental authority holder at the relevant time.

END OF CONDITIONS FOR SCHEDULE F

Schedule G – Community

Complaint response

- (G1-1) All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.

END OF CONDITIONS FOR SCHEDULE 1G

Schedule H - Definitions

Definitions

- (H1-1) Words and phrases used in this authority are defined in Schedule H – Definitions. Where a definition for a term used in this authority is sought and the term is not defined herein, the definitions in the Environmental Protection Act 1994, regulations made under that Act, Environmental Protection Policies as amended from time to time or ordinary meaning must be used.

Interpretation

"EMOS" means the Environmental Management Overview Strategy report titled "Boral Bricks Pty Ltd Brisbane District Operations Environmental Management Overview Strategy" dated January 2003. Where required, interpretation of this environmental authority should be in the context of the EMOS.

"acceptance criteria" means the standards by which the actions implemented to rehabilitate land are deemed to be complete. The acceptance criteria relate to 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 collembola, 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; and
- vegetation water use and effects on ground water levels and catchment yields.

"AEP" means "annual exceedence probability" in relation to a given rainfall event, is the probability that the given event will be exceeded within a one year period. The AEP is usually expressed as "1 in n" (years) or as a percentage. The *given rainfall event* comprises a stated depth of rainfall received during a stated period: for example, 750 mm in one year, or 95 mm in 24 hours. If the 24-hour rainfall event having an AEP of 5% is, say, 120 mm, this means that for each year there will be 5% chance that the 24-hour rainfall will be 120 mm, or greater. Another way of expressing this is to say the Average Recurrence Interval is 20 years (Note that this does not mean only 1 occurrence in every 20 years, or only 5 occurrences per century).

"administering authority" means the Environmental Protection Agency or its successor.

"annual return" means the return required by the annual notice (under section 316 of the Environment Protection Act, 1994) for an environmental authority.

"approval" means development permit or preliminary approval decision notice or referral agency response under the Integrated Planning Act 1997.

"authorised place" means the place, land or premises authorised under this authority or approval for the carrying out of the specified environmentally relevant activities.

"authority" means level 1 licence, level 1 approval, level 2 approval or environmental authority (mining activities) under the Environmental Protection Act 1994.

"commercial place" means a place used as an office or for business or commercial purposes other than such a place on the land the subject of this environmental authority.

"competent person" means a person with sufficient demonstrated skill, knowledge and qualifications required to carry out a task to a necessary standard for protection of the environment.

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

"disturbed areas" or words to that effect means areas that comprise the active mine area, the process plant and the tailings area.

"dwelling" means any of the following structures or vehicles that is principally used as a place for human habitation-

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land; and
- a water craft in a marina.

"authority holder" means the person to whom an environmental authority is issued or transferred to, or a person acting under an environmental authority.

"environmental harm" has the meaning given in the *Environmental Protection Act 1994*.

"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.

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"intrusive noise" means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration -

- is clearly audible to, or can be felt by, an individual; and
- annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, reference should be made to Australian Standard 1055.2 - 1997 Acoustics - Description and Measurement of Environmental Noise Part 2 - Application to Specific Situations.

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

" $L_{A 1, \text{adj}, 10 \text{ mins}}$ " 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.

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

"land" includes waters and the atmosphere.

"mg/L" means milligrams per litre.

"noise sensitive place" means -

- a dwelling, mobile home or caravan park, residential marina or other residential premises;
 - a motel, hotel or hostel;
 - a kindergarten, school, university or other educational institution;
 - a medical centre or hospital;
 - a protected area; and
 - a park or gardens;
- and includes the curtilage of any such place.

"noxious" means harmful or injurious to health or physical well being.

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

"progressive rehabilitation" means rehabilitation (defined below) undertaken progressively or in stages as mining activities or operations are ongoing.

"protected area" means -

- a protected area under the Nature Conservation Act 1992;
- a marine park under the Marine Parks Act 1992; and
- a World Heritage Area.

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

"rehabilitation" means the process of reshaping and revegetating land to restore it to a stable post mining state and in accordance with the acceptance criteria, 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 to different phases of mining activities.

"sensitive place" means;

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises excluding accommodation for persons engaged in the mining activities;
- a motel, hotel or hostel;
- an educational institution;
- a medical centre or hospital;
- a public park or gardens (including a protected area); and

- a commercial place;

and includes the curtilage of any such place.

"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.

"significantly disturbed" or words to that effect means -

(a) contaminated land; or

(b) land that has been disturbed and human intervention is needed to rehabilitate it;

(i) including:

- 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 waters where mining project activities occur;
- areas submerged by tailings or hazardous contaminant storage dams in all cases;
- areas under temporary infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be removed after mining has ceased; or

(ii) not including

- areas off mining 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 administering authority, areas previously significantly disturbed which have not achieved the rehabilitation objectives due to circumstances beyond the control of the authority holder (such as climatic conditions);
- areas under permanent infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be lawfully left on the site post authority surrender.
- disturbances that pre-existed the grant of the mining tenure unless those areas are disturbed during the term of the tenure.

"site" means the place or premises to which this authority or approval relates.

"stable" means geotechnical stability of a rehabilitated landform where instability caused by settlement and subsidence has ceased.

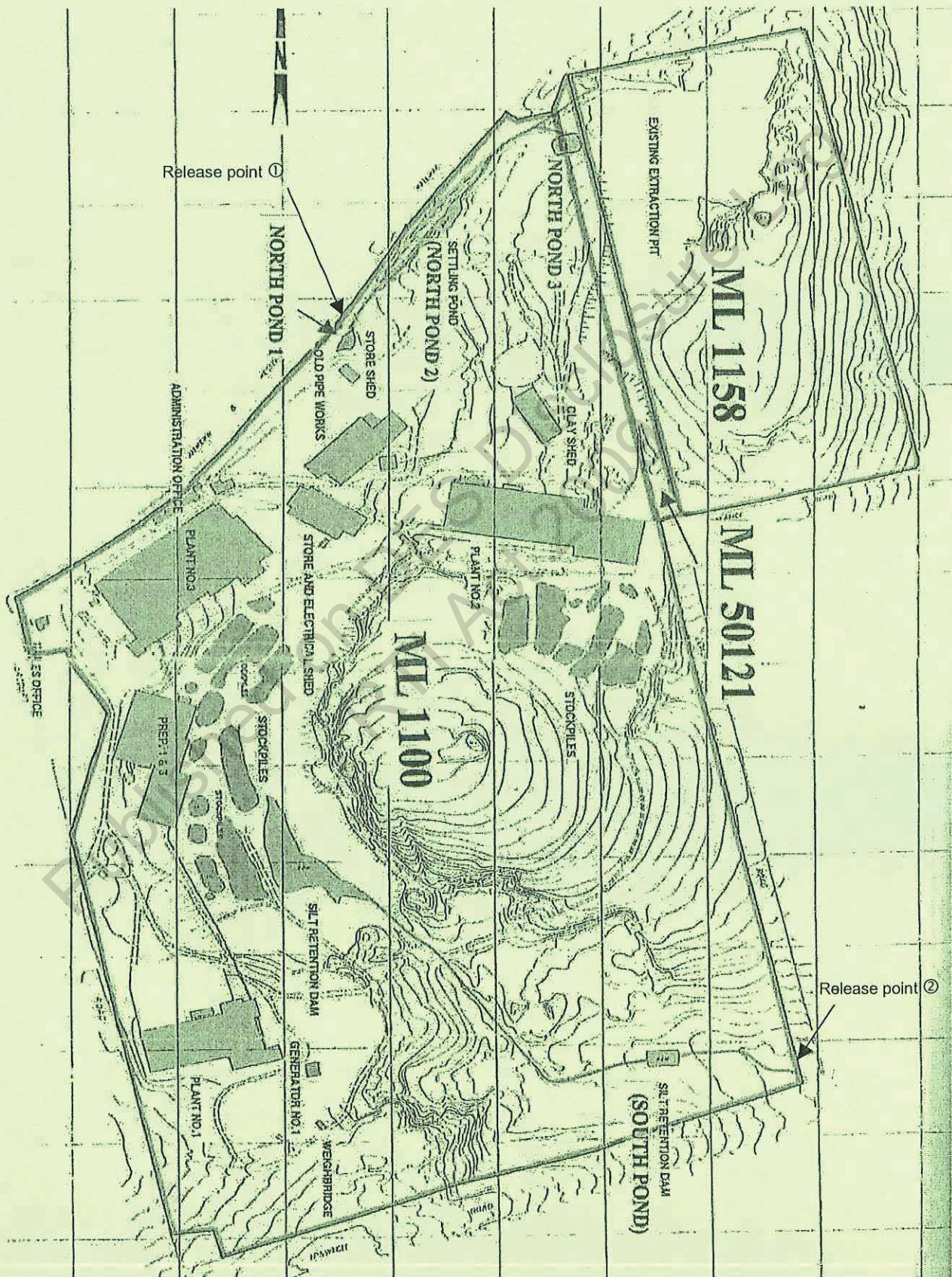
"µs/cm" means micro semen per centimetre.

"waters" includes any watercourse, lake, lagoon, pond, swamp, wetland, bed and bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off or groundwater.

END OF CONDITIONS FOR SCHEDULE 1H

Schedule I – Maps / Plans

Figure 1 – Darra



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Figure 2 – Redbank Plains

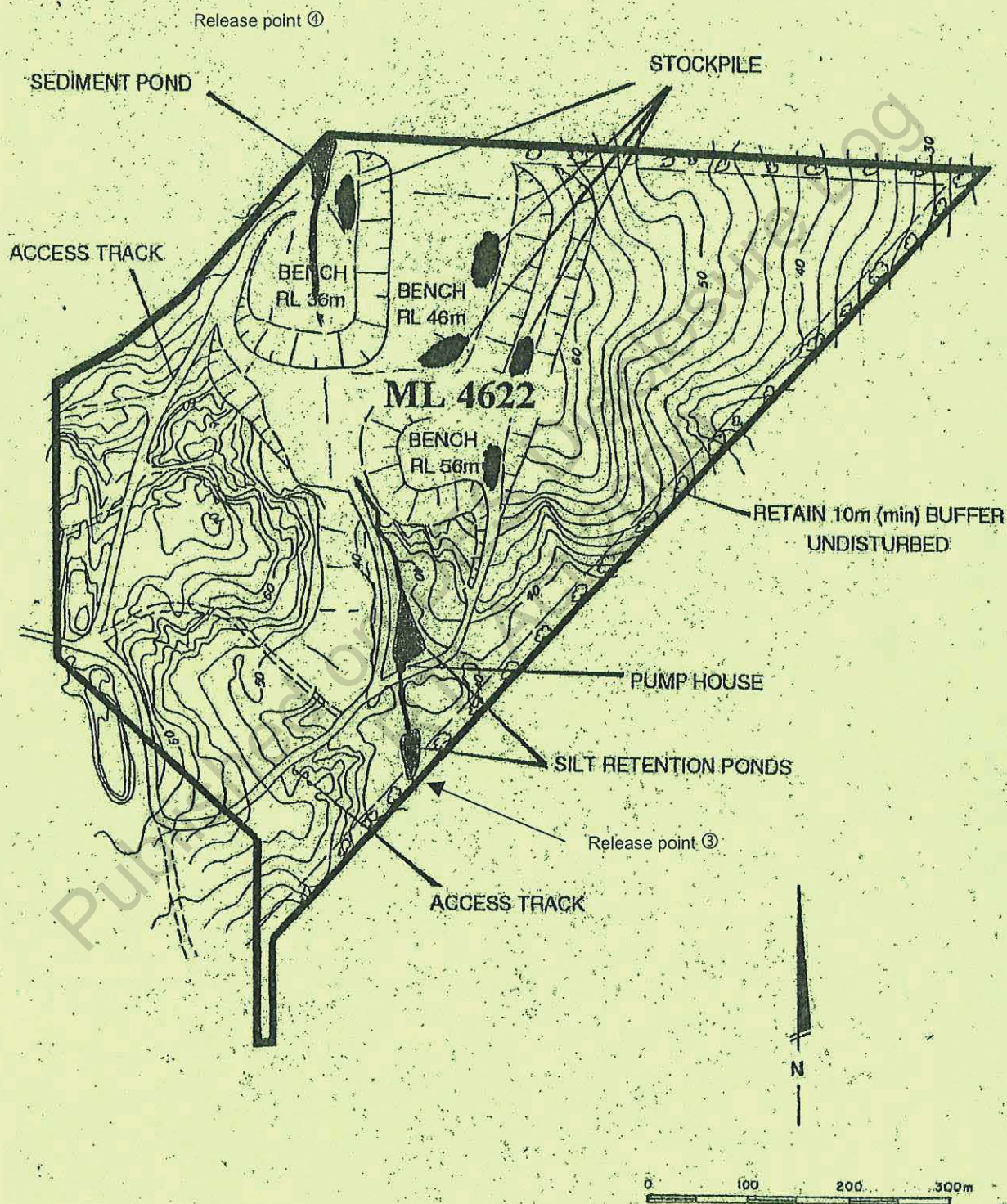


Figure 3 – Strathpine

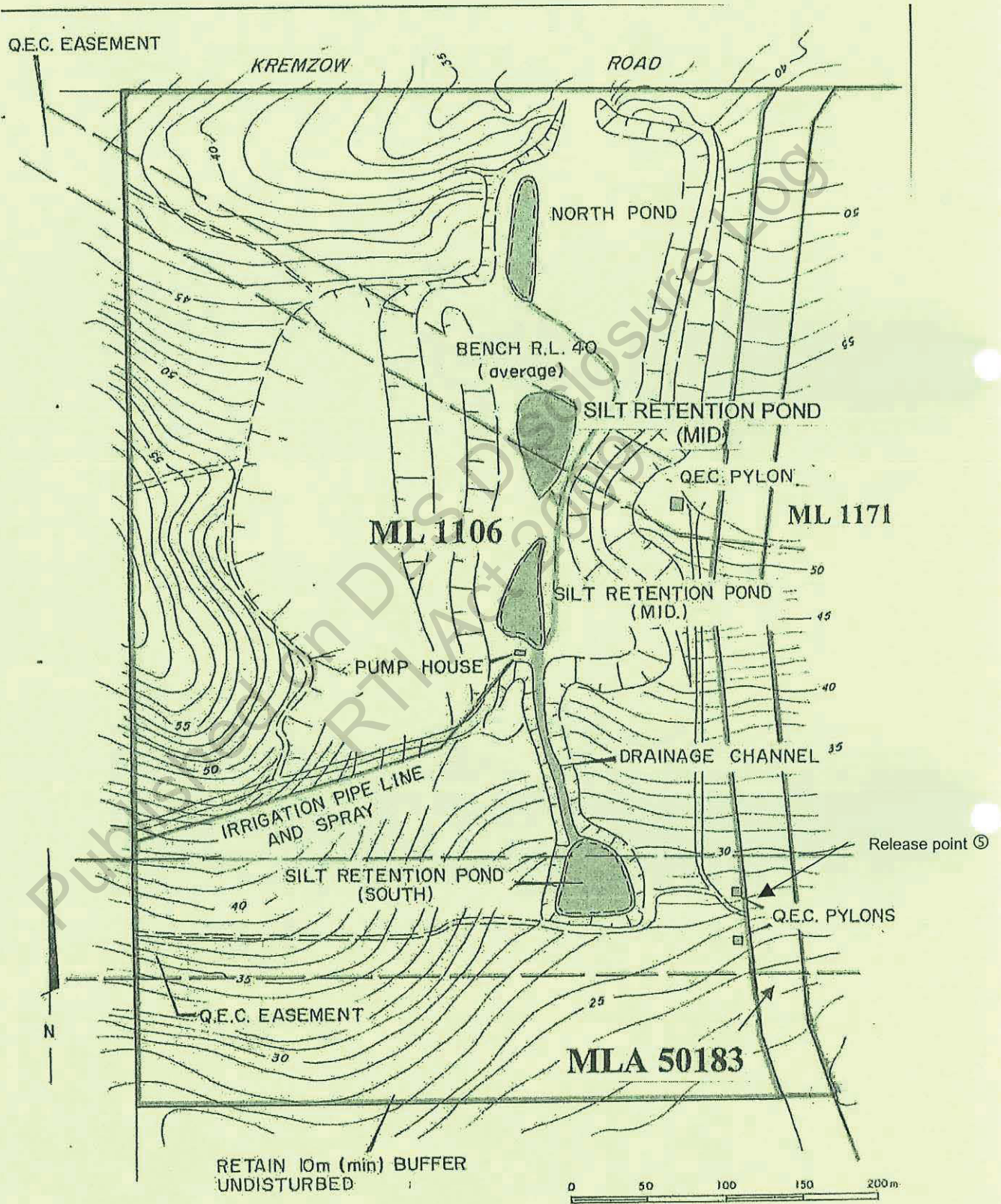
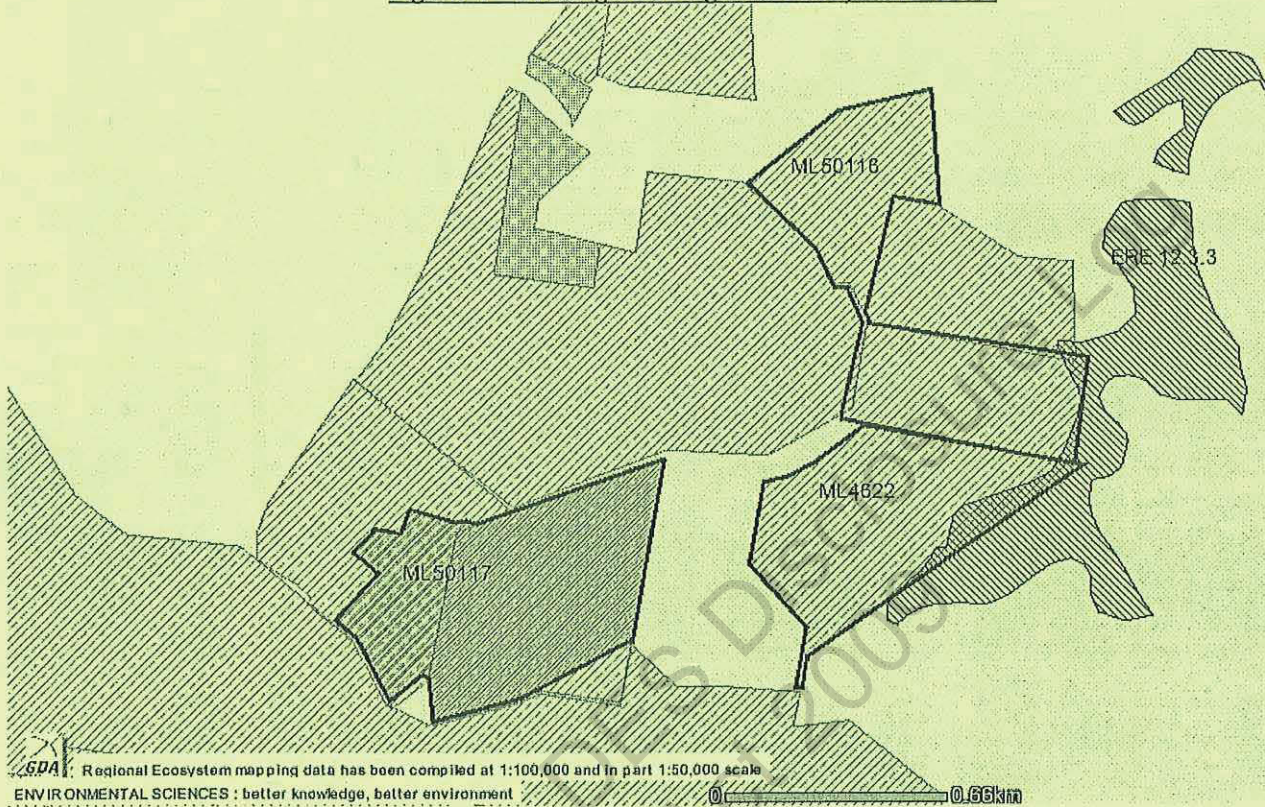
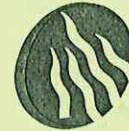


Figure 4 – Endangered Regional Ecosystem 12.3.3



END OF CONDITIONS

END OF ENVIRONMENTAL AUTHORITY



Enquiries Fiona Marks
Telephone 3225 1050
Your reference ML4583
Our reference STH2130/STH5149

Environmental Protection Agency

Incorporating the
Queensland Parks and Wildlife Service

24 November 2004

Mining Registrar
Department of Natural Resources and Mines
PO BOX 1475
COORPAROO QLD 4151

Dear Damien

Transfer of Environmental Authority (Mining Activities) T2245

I refer to the application for transfer of environmental authority T2245 received at this office on 24 August 2004. The authority has been transferred from New Hope Collieries Pty Ltd to Boral Bricks Pty Ltd.

Please find attached Boral Bricks Pty Ltd's mining project environmental authority, M1241, which has been amended to include ML4583.

The following table indicates the adjustment (if any) required for the financial assurance.

ML number	New EA Number	Adjustment to Financial Assurance
4583	M1241	Nil

If you have any questions please contact Fiona Marks on (07) 3225 1050.

Yours sincerely

sch4p4(6) Personal information

Lawrie Wade
Acting Manager (Licensing)
Southern Region



Queensland Government

Environmental Protection Agency
Queensland Parks and Wildlife Service

Environmental Authority No. M1241 (mining activities)

02219

Section 240 Environmental Protection Act 1994

This environmental authority is granted under the Environmental Protection Act 1994 and includes conditions. An environmental authority (mining activities) may be for mining activities authorised (under the Mineral Resources Act 1989) to occur under one of the following mining tenements: a prospecting permit; mining claim; exploration permit; mineral development licence; or mining lease. In general, a mining activity means: prospecting, exploring, mining; or processing minerals; remediation and rehabilitation.

Under the provisions of the *Environmental Protection Act 1994* this environmental authority is issued to:

Boral Bricks Pty Ltd
c/- Boral Limited
Level 39, 50 Bridge Street
SYDNEY NSW 2000

in respect of carrying out mining activities as part of the following mining project:

Type of environmental authority (mining activities)	Authorised mining tenements	Location
Mining Lease	1100, 1158, 50121	Darra
Mining Lease	4622, 50116	Redbank Plains
Mining Lease	1106, 1171, 50183	Strathpine

Pursuant to section 18(a) of the *Environmental Protection Act 1994* the above-described mining activities are an environmentally relevant activity ("ERA"). Those mining activities are hereby authorised to the extent defined in section 12(b) of Division 2, Part 2, Schedule 6 of the *Environmental Protection Regulation 1998* as follows:

Mining activities, other than a standard mining activity, carried out using equipment and plant having a mineral ore throughput of more than 100 000t, but less than 500 000t, a year.

This environmental authority is subject to the conditions set out in the attached schedules.

The anniversary date of this environmental authority is 30 June.

This amended environmental authority takes effect from 24 November 2004.

sch4p4(6) Personal info

Signed

Date

Rod Kent
Manager
Delegate of Administering Authority
Environmental Protection Act 1994



**PART 1 - ENVIRONMENTAL AUTHORITY (MINING LEASE) – (Section 258
Environmental Protection Act 1994)**

This part is for carrying out an environmental authority (mining activities) for a mining lease under chapter 5, parts 1, 2 and 6 of the Environmental Protection Act 1994.

Schedule A - General conditions

Prevent or minimise likelihood of environmental harm

- (A1-1) In carrying out the ERA the authority holder must take reasonable and practicable measures to prevent or minimise the likelihood of environmental harm being caused. Any ERA that, if carried out incompetently or negligently may cause environmental harm, shall be carried out in a proper manner in accordance with the conditions of this authority.

Note. This authority authorises the ERA. It does not authorise environmental harm unless a condition hereof explicitly authorises that harm. Where there is no such condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

Maintenance of measures, plant and equipment

- (A2-1) The authority holder must:
- (a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this authority;
 - (b) maintain such measures, plant and equipment in a proper and efficient condition; and
 - (c) operate such measures, plant and equipment in a proper and efficient manner.

Monitoring

- (A3-1) Record, compile and keep for a minimum of five years the results of all monitoring required by this authority and make those records available for inspection upon request by the administering authority.
- (A3-2) Where monitoring is required by this authority, ensure that a competent person conducts all monitoring.

Storage and handling of flammable or combustible liquids

- (A4-1) Spillage of any flammable or combustible liquids must be contained on the site and rectified whereby environmental harm other than of a trivial nature is not caused.
- (A4-2) All petroleum product storage must be designed, constructed and maintained in accordance with Australian Standard 1940 - Storage and Handling of Flammable or Combustible Liquids.

Financial assurance

- (A5-1) Provide a financial assurance in the amount and form required by the administering authority prior to the commencement of the ERA.

NOTE: The calculation of financial assurance for condition (A5-1) must be in accordance with EPA Guideline 17 *Financial Assurance for Mining Activities* and may include a performance discount. The financial assurance amount is defined as the maximum total rehabilitation cost for complete rehabilitation of all significantly disturbed areas, which may vary on an annual basis due to progressive rehabilitation. The amount required for the financial assurance must be the highest Total Rehabilitation Cost calculated for any year of the Plan of Operations and calculated using the formula: Financial Assurance = Highest Total Annual Rehabilitation Cost x Percentage Required.

Release



- (A5-2) The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely.

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

Environmentally sensitive areas

- (A6-1) Mining activities must not be carried out in Endangered Regional Ecosystem 12.3.3 as shown on Figure 4 in Schedule I hereof.

END OF CONDITIONS FOR SCHEDULE A

Schedule B – Air

Dust nuisance

- (B1-1) The release of dust or other particulate matter resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B1-2) For the purposes of condition (B1-1), the ERA will not cause environmental nuisance where dust or other particulate matter resulting from the ERA does not exceed the following limits when measured at any sensitive place:
- (a) dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard 3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulates – Deposited matter – Gravimetric method; or
 - (b) a concentration of suspended particulate matter with an aerodynamic diameter of less than 10 micrometres (μm) (PM10) of 150 micrograms per cubic metre over a 24 hour averaging time at a sensitive place downwind, when monitored in accordance with:
 - (i) Australian Standard AS 3580.9.6 Methods for sampling and analysis of ambient air – Determination of particulate matter – PM (sub) 10 high-volume sampler with size-selective inlet - Gravimetric method; or
 - (ii) any alternative method of monitoring PM10 which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.
- (B1-3) Dust or other particulate monitoring must be undertaken as directed by the administering authority to investigate any complaint of dust nuisance being caused by the ERA, which complaint in the opinion of an authorised person is not frivolous, vexatious nor based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. Monitoring must be carried out at a site relevant to the potentially affected sensitive place and at upwind control site(s) and must include:
- (a) for a complaint alleging dust nuisance, dust deposition; and
 - (b) for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of suspended PM10 over a 24hr averaging time.
- (B1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by dust or other particulate matter from the ERA, the authority holder must:



- (a) address the complaint including the use of appropriate dispute resolution if required; or
- (b) immediately implement abatement measures so that emission of dust or other particulate matter from the ERA does not result in further environmental nuisance.

Odour nuisance

- (B2-1) Subject to condition (B2-2), the release of noxious or offensive odour or any other noxious or offensive airborne contaminant resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B2-2) Odour monitoring must be undertaken as directed by the administering authority to investigate any complaint of odour nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring.
- (B2-3) If an authorised person's opinion based on monitoring results or otherwise indicates that environmental nuisance is being caused by odour from the ERA, the authority holder must:
 - (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement odour abatement measures so that emission of odour from the ERA does not result in further environmental nuisance.

END OF CONDITIONS FOR SCHEDULE B

Schedule C – Water

Management of Stormwater

- (C1-1) Stormwater runoff from the site must be managed in accordance with the following hierarchy:
 - (a) avoidance – eg. prevent the amount of contaminated stormwater generated;
 - (b) reuse – eg. reuse contaminated stormwater;
 - (c) recycle – eg. treat contaminated stormwater for reuse; and
 - (d) disposal – eg. dispose of contaminated stormwater in a way that causes the least environmental harm and in accordance with the conditions of this authority.
- (C1-2) Erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment to any waters outside the site.
- (C1-3) The storage design criteria of any stormwater containment dam must be sufficient to contain the runoff expected from a 1 in 10 year AEP 24 hour rainfall event.

Release to waters

- (C2-1) Stormwater runoff from disturbed areas on the site must only be released to waters outside the site from the release points shown in Schedule I and listed in Schedule C – Table 1. Release of stormwater is permitted from the release points if caused by a rainfall event in excess of, or equal to, a 1 in 10 year AEP 24 hour rainfall event, for a period of no longer than 24 hours after cessation of the rainfall event, or otherwise when water is in compliance with the release limits stated in Schedule C - Table 2.

Release



Schedule C - Table 1 (Release points)

Release point	Easting (AMG)	Northing (AMG)
① - ML 1100	496 125	6951 125
② - ML1100	496 500	6950 250
③ - ML4622	483 500	6943 250
④ - ML4622	483 625	6944 125
⑤ - ML1106	496 000	6978 125

02217

Schedule C - Table 2 (Release limits)

Parameter	Units	Minimum	Maximum
pH	-	6.5	8.5
Total Suspended Solids	mg/L	-	50
Conductivity	µs/cm	-	1500

- (C2-2) Contaminants must not be released from the site to any waters or to the bed and banks of any waters outside the site except in accordance with condition (C2-1).

END OF CONDITIONS FOR SCHEDULE C

Schedule D - Noise

Noise nuisance

- (D1-1) Subject to conditions (D1-2) and (D1-3), noise from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (D1-2) Noise monitoring must be undertaken as directed by the administering authority to investigate any complaint of noise nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. For the purposes of this condition, noise monitoring must be done in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual* and include:
- $L_{A, max adj, T}$;
 - relevant background sound level;
 - the level and frequency of occurrence of impulsive or tonal noise;
 - atmospheric conditions including wind speed and direction; and
 - location, date and time of recording.

Release



- (D1-3) For the purposes of condition (D1-1), the ERA will not cause environmental nuisance where noise from the ERA does not exceed the limits specified in Schedule D - Table 1.
- (D1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by noise from the ERA, the authority holder must:
- address the complaint including the use of appropriate dispute resolution if required; or
 - immediately implement noise abatement measures so that emissions of noise from the ERA do not result in further environmental nuisance.

Schedule D - Table 1 (Noise limits) *

Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
Noise measured at a 'Noise sensitive place'						
L_{Amax} adj, T	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)	Background + 0 dB(A)	Background + 0 dB(A)
Noise measured at a 'Commercial place'						
L_{Amax} adj, T	Background + 10 dB(A)	Background + 10 dB(A)	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)

Where "T" is 10 minutes and "Background" means background sound pressure level measured in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual*.

* Schedule D Table 1 does not purport to set operating hours for the ERA.

END OF CONDITIONS FOR SCHEDULE D

Schedule E – Waste

There are no conditions prescribed for this schedule.

END OF CONDITIONS FOR SCHEDULE E

Schedule F – Land

Buffer zones

- (F1-1) There must be no mining activities in the buffer zones shown on Figures 2 and 3 in Schedule I hereof other than for environmental control works (eg. noise bunds), access or provision of services and excepting for abutting mining lease boundaries where the mining leases are held by the holder of this environmental authority.

Rehabilitation landform criteria

- (F2-1) All areas significantly disturbed by mining activities must be rehabilitated in accordance with Schedule F – Table 1.

Release



02216

Rehabilitation outcomes acceptance criteria (Industrial and Residential)

- (F3-1) For the purposes of Schedule F – Table 1, significantly disturbed land nominated for an industrial or residential rehabilitation outcome will be considered rehabilitated when the land is stabilised and does not, or will not, have potential to cause environmental harm.
- (F3-2) Despite condition (F3-1) and pending approval for surrender of this authority, the use of significantly disturbed land and/or mine voids remaining at the end of mine life for an industrial or residential rehabilitation outcome is subject to the operation of relevant legislation (eg. *Integrated Planning Act 1997*).
- (F3-3) Where requisite statutory approval(s) for a final land use and rehabilitation outcome described in Schedule F - Table 1 are not obtained, an alternative rehabilitation outcome must be nominated to the administering authority.

Rehabilitation outcomes acceptance criteria (Rural)

- (F4-1) For the purposes of Schedule F - Table 1, complete an investigation into rehabilitation of significantly disturbed areas nominated for rural rehabilitation outcome and submit a report to the administering authority proposing relevant rehabilitation acceptance criteria by 30 June 2009.
- (F4-2) All relevant areas significantly disturbed by the ERA must be rehabilitated in accordance with the acceptance criteria prescribed in the report required by condition (F4-1) as may be modified by the administering authority. Where no such modification is notified by the administering authority to the authority holder within six months of receipt of the report, then the acceptance criteria prescribed in the report will apply.

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

Tenure ID	Surface Disturbance Area (ha)	Rehabilitation Outcome
ML1100	48.35	Residential
ML1158	5.67	Residential
ML50121	0.95	Residential
ML1106	21.48	Rural or Residential
ML1171	12.75	Rural or Residential
ML50183	2.05	Rural or Residential
ML4622	38.60	Industrial (landfill)
ML50116	12.95	Industrial (landfill)
ML50117	10.67	Industrial (landfill)
ML4583	0	Industrial (landfill)

Release



Progressive rehabilitation

- (F5-1) The top layer and sub layers of the soil profile must be removed and stockpiled separately and retained for the purpose of rehabilitation of significantly disturbed areas.
- (F5-2) Commence progressive rehabilitation of significantly disturbed areas as soon as practicable or when:
- (a) the economic potential of the mineral resource in an area has been exhausted;
 - (b) an area is no longer required for the continuation of the mining activities; and
 - (c) an area is of no further beneficial use to the mining operation.

Infrastructure

- (F6-1) All infrastructure for the ERA including water storage structures, must be removed from the site prior to surrender hereof, except where otherwise agreed to in writing by the land owner and Mining Registrar at the relevant time.

NOTE: This condition is not applicable to the landowner also being the environmental authority holder at the relevant time.

END OF CONDITIONS FOR SCHEDULE F

Schedule G – Community

Complaint response

- (G1-1) All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.

END OF CONDITIONS FOR SCHEDULE 1G

Schedule H - Definitions

Definitions

- (H1-1) Words and phrases used in this authority are defined in Schedule H – Definitions. Where a definition for a term used in this authority is sought and the term is not defined herein, the definitions in the Environmental Protection Act 1994, regulations made under that Act, Environmental Protection Policies as amended from time to time or ordinary meaning must be used.

Interpretation

"EMOS" means the Environmental Management Overview Strategy report titled "Boral Bricks Pty Ltd Brisbane District Operations Environmental Management Overview Strategy" dated January 2003. Where required, interpretation of this environmental authority should be in the context of the EMOS.

"acceptance criteria" means the standards by which the actions implemented to rehabilitate land are deemed to be complete. The acceptance criteria relate to 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:

Release



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Environmental Protection Agency Queensland Parks and Wildlife Service

- 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 collembola, 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; and
- vegetation water use and effects on ground water levels and catchment yields.

02215

"AEP" means "annual exceedence probability" in relation to a given rainfall event, is the probability that the given event will be exceeded within a one year period. The AEP is usually expressed as "1 in n" (years) or as a percentage. The *given rainfall event* comprises a stated depth of rainfall received during a stated period: for example, 750 mm in one year, or 95 mm in 24 hours. If the 24-hour rainfall event having an AEP of 5% is, say, 120 mm, this means that for each year there will be 5% chance that the 24-hour rainfall will be 120 mm, or greater. Another way of expressing this is to say the Average Recurrence Interval is 20 years (Note that this does not mean only 1 occurrence in every 20 years, or only 5 occurrences per century).

"administering authority" means the Environmental Protection Agency or its successor.

"annual return" means the return required by the annual notice (under section 316 of the Environment Protection Act, 1994) for an environmental authority.

"approval" means development permit or preliminary approval decision notice or referral agency response under the Integrated Planning Act 1997.

"authorised place" means the place, land or premises authorised under this authority or approval for the carrying out of the specified environmentally relevant activities.

"authority" means level 1 licence, level 1 approval, level 2 approval or environmental authority (mining activities) under the Environmental Protection Act 1994.

"commercial place" means a place used as an office or for business or commercial purposes other than such a place on the land the subject of this environmental authority.

"competent person" means a person with sufficient demonstrated skill, knowledge and qualifications required to carry out a task to a necessary standard for protection of the environment.

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

"disturbed areas" or words to that effect means areas that comprise the active mine area, the process plant and the tailings area.

"dwelling" means any of the following structures or vehicles that is principally used as a place for human habitation-

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land; and
- a water craft in a marina.

"authority holder" means the person to whom an environmental authority is issued or transferred to, or a person acting under an environmental authority.

Release



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Environmental Protection Agency Queensland Parks and Wildlife Service

"environmental harm" has the meaning given in the *Environmental Protection Act 1994*.

"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.

"intrusive noise" means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration -

- is clearly audible to, or can be felt by, an individual; and
- annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, reference should be made to Australian Standard 1055.2 - 1997 Acoustics - Description and Measurement of Environmental Noise Part 2 - Application to Specific Situations.

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

" $L_{A\ 1, \text{adj}, 10 \text{ mins}}$ " 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.

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

"land" includes waters and the atmosphere.

"mg/L" means milligrams per litre.

"noise sensitive place" means -

- a dwelling, mobile home or caravan park, residential marina or other residential premises;
 - a motel, hotel or hostel;
 - a kindergarten, school, university or other educational institution;
 - a medical centre or hospital;
 - a protected area; and
 - a park or gardens;
- and includes the curtilage of any such place.

"noxious" means harmful or injurious to health or physical well being.

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

"progressive rehabilitation" means rehabilitation (defined below) undertaken progressively or in stages as mining activities or operations are ongoing.

"protected area" means -

- a protected area under the Nature Conservation Act 1992;
- a marine park under the Marine Parks Act 1992; and
- a World Heritage Area.

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

"rehabilitation" means the process of reshaping and revegetating land to restore it to a stable post mining state and in accordance with the acceptance criteria, and where relevant includes remediation of contaminated land.

Release



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

"sensitive place" means;

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises excluding accommodation for persons engaged in the mining activities;
- a motel, hotel or hostel;
- an educational institution;
- a medical centre or hospital;
- a public park or gardens (including a protected area); and
- a commercial place;

and includes the curtilage of any such place.

"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.

"significantly disturbed" or words to that effect means -

(a) contaminated land; or

(b) land that has been disturbed and human intervention is needed to rehabilitate it;

(i) including:

- 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 waters where mining project activities occur;
- areas submerged by tailings or hazardous contaminant storage dams in all cases;
- areas under temporary infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be removed after mining has ceased; or

(ii) not including

- areas off mining 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 administering authority, areas previously significantly disturbed which have not achieved the rehabilitation objectives due to circumstances beyond the control of the authority holder (such as climatic conditions);
- areas under permanent infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be lawfully left on the site post authority surrender.
- disturbances that pre-existed the grant of the mining tenure unless those areas are disturbed during the term of the tenure.

"site" means the place or premises to which this authority or approval relates.

"stable" means geotechnical stability of a rehabilitated landform where instability caused by settlement and subsidence has ceased.

"µs/cm" means micro semen per centimetre.

"waters" includes any watercourse, lake, lagoon, pond, swamp, wetland, bed and bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off or groundwater.

END OF CONDITIONS FOR SCHEDULE 1H

Release



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**Environmental Protection Agency
Queensland Parks and Wildlife Service**

Schedule I – Maps / Plans

Published on DES Disclosure Log
RTI Act 2009

Release

Notice of decision - Partial Surrender Application

This notice is issued by the Environmental Protection Agency to advise of a statutory decision on an application to partially surrender a permit¹ under environmental and/or conservation legislation.

02221

Boral Bricks (Qld) Limited
PO Box 3062
DARRA QLD 4076

Our reference: 175186

Dear Sir/Madam

Re: Decision made in relation to your application under environmental legislation administered by the Environmental Protection Agency (EPA).

The EPA has assessed your application for Partial Surrender of your Non-Standard Environmental Authority (Mining Lease) number M1241 under the Environmental Protection Act 1994 received on 23-APR-2007 and wishes to advise that the application has been .

The following sub-blocks have been surrendered:

Location Name: ML4583

Map	Block No	Sub Blocks
BRISBANE	3130	P, U

Location Name: ML50117

Map	Block No	Sub Blocks
BRISBANE	3130	P, U

If you require more information, please contact Elizabeth Ann Dunlop, on the telephone number listed below.

Yours sincerely

sch4p4(6) Personal info

5/6/07

Environmental Protection Agency

Enquiries:

SouthReg EnvOps (Bne) Mining, Extraction, Pe
Floor 23, 288 Edward Street
GPO Box 2771
BRISBANE QLD 4000
Phone:(07) 3225 8401
Fax: (07) 3225 8723

¹ Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation administered by the Environmental Protection Agency and the Queensland Parks and Wildlife Service.





Enquiries Elizabeth Dunlop
Telephone (07) 3224 6246
Your reference
Our reference M1241/STH5149

Environmental Protection Agency

Incorporating the
Queensland Parks and Wildlife Service

Tenures Unit
Department of Mines and Energy
PO Box 1475
COORPAROO QLD 4151

02220

Dear Sir/Madam

Re: Partial Surrender of Environmental Authority (Mining Activities) M1241

Please find attached a 'Notice of decision to grant an application to surrender the whole or part of an environmental authority (mining activities)'.

The following table indicates the adjustment (if any) required for the financial assurance.

EA Number	Mining Lease(s)	Part Surrender	Adjustment to Financial Assurance
M1241	4583 50117	BRIS 3130 P BRIS 3130 U	No

If you have any questions please do not hesitate to contact Elizabeth Dunlop on telephone (07) 3224 6246.

Yours sincerely

sch4p4(6) Personal in

5/6/07

Rod Kent
Delegate
Southern Region, EPA

Notice

Environmental Protection Act 1994 Section 290

Notice of correction of an environmental authority (mining activities)

This notice is issued by the administering authority pursuant to section 290 of the Environmental Protection Act 1994 to advise you that it is proposed to amend an environmental authority (mining activities) to correct a clerical or formal error.

02197

Boral Bricks Pty Ltd
PO Box 3062
DARRA QLD 4076

Your reference :

Our reference : STH 5149 / M1241

Attention:

sch4p4(6) Personal

Re: Environmental authority (mining lease), number M1241, held by Boral Bricks Pty Ltd.

You are hereby advised that the above mentioned environmental authority(mining lease), is to be amended in the following manner:

Amend the mining tenements listed on environmental authority M1241 held by Boral Bricks Pty Ltd to include mining leases ML 50117 and ML 4583.

If you consider that the above amendment may adversely affect the interests of Boral Bricks Pty Ltd, you are advised to contact Elizabeth Dunlop on 3224 6246, within 5 business days of receipt of this notice.

The amended environmental authority shall be forwarded to you within 10 business days.

Notice of correction of an environmental authority (mining activities)

	sch4p4(6) Personal informati	
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Signature

20 June 2007

Date

Rod Kent
Operations Manager
Delegate of Administering Authority
Environmental Protection Act 1994

Enquiries:
Level 23, 288 Edward Street Brisbane
Queensland Australia
GPO Box 2771 BRISBANE QLD
Queensland 4002 Australia
Ph. (07) 3224 3246
Fax. (07) 3225 8723

Published on DES Disclosure Log
RTI Act 2009

Notice of decision – Partial Surrender Application

This notice is issued by the Environmental Protection Agency to advise of a statutory decision on an application to partially surrender a permit¹ under environmental and/or conservation legislation

Boral Bricks Pty Ltd
PO Box 3062
DARRA QLD 4076

02196

Our reference: 175186

Attention: sch4p4(6) Personal info

Dear sch4p4(6) Person

Re: Decision made in relation to your application under environmental legislation administered by the Environmental Protection Agency (EPA).

The EPA has assessed your application for Partial Surrender of your Non-Standard Environmental Authority (mining lease) number M1241 under the Environmental Protection Act 1994 received on 23 April 2007 and wishes to advise that the application has been granted.

The following lots have been surrendered:

Location Name: ML4583

Lot	Plan
2	RP71624

Location Name: ML50117

Lot	Plan
2	RP71624

If you require more information, please contact Elizabeth Dunlop on the telephone number listed below.

¹ Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation administered by the Environmental Protection Agency and the Queensland Parks and Wildlife Service



Yours sincerely

sch4p4(6) Personal information

20/6/07

Rod Kent
Environmental Protection Agency

Enquiries:

SouthReg EnvOps (Bne) Mining, Extraction,
Energy

Floor 23, 288 Edward Street

GPO Box 2771

BRISBANE QLD 4000

Phone: (07) 3224 6246

Fax: (07) 3225 8723



Queensland Government

Environmental Protection Agency
Queensland Parks and Wildlife Service

Environmental Authority No. M1241 (mining activities)

Section 240 Environmental Protection Act 1994

02195

This environmental authority is granted under the Environmental Protection Act 1994 and includes conditions. An environmental authority (mining activities) may be for mining activities authorised (under the Mineral Resources Act 1989) to occur under one of the following mining tenements: a prospecting permit; mining claim; exploration permit; mineral development licence; or mining lease. In general, a mining activity means: prospecting, exploring, mining; or processing minerals; remediation and rehabilitation.

Under the provisions of the *Environmental Protection Act 1994* this environmental authority is issued to:

Boral Bricks Pty Ltd
c/- Boral Limited
Level 39, 50 Bridge Street
SYDNEY NSW 2000

in respect of carrying out mining activities as part of the following mining project:

Type of environmental authority (mining activities)	Authorised mining tenements	Location
Mining Lease	1100, 1158, 50121	Darra
Mining Lease	4622, 50116, 50117, 4583	Redbank Plains
Mining Lease	1106, 1171, 50183	Strathpine

Pursuant to section 18(a) of the *Environmental Protection Act 1994* the above-described mining activities are an environmentally relevant activity ("ERA"). Those mining activities are hereby authorised to the extent defined in section 12(b) of Division 2, Part 2, Schedule 6 of the *Environmental Protection Regulation 1998* as follows:

Mining activities, other than a standard mining activity, carried out using equipment and plant having a mineral ore throughput of more than 100 000t, but less than 500 000t, a year.

This environmental authority is subject to the conditions set out in the attached schedules.

The anniversary date of this environmental authority is 30 June.

This amended environmental authority takes effect from 24 November 2004.

sch4p4(6) Personal informat

Signed

Date

25/6/09

Rod Kent
Brisbane District, Southern Region
Delegate of Administering Authority
Environmental Protection Act 1994



**PART 1 - ENVIRONMENTAL AUTHORITY (MINING LEASE) – (Section 258
Environmental Protection Act 1994)**

This part is for carrying out an environmental authority (mining activities) for a mining lease under chapter 5, parts 1, 2 and 6 of the Environmental Protection Act 1994.

Schedule A - General conditions

Prevent or minimise likelihood of environmental harm

- (A1-1) In carrying out the ERA the authority holder must take reasonable and practicable measures to prevent or minimise the likelihood of environmental harm being caused. Any ERA that, if carried out incompetently or negligently may cause environmental harm, shall be carried out in a proper manner in accordance with the conditions of this authority.

Note. This authority authorises the ERA. It does not authorise environmental harm unless a condition hereof explicitly authorises that harm. Where there is no such condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

Maintenance of measures, plant and equipment

- (A2-1) The authority holder must:
- (a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this authority;
 - (b) maintain such measures, plant and equipment in a proper and efficient condition; and
 - (c) operate such measures, plant and equipment in a proper and efficient manner.

Monitoring

- (A3-1) Record, compile and keep for a minimum of five years the results of all monitoring required by this authority and make those records available for inspection upon request by the administering authority.
- (A3-2) Where monitoring is required by this authority, ensure that a competent person conducts all monitoring.

Storage and handling of flammable or combustible liquids

- (A4-1) Spillage of any flammable or combustible liquids must be contained on the site and rectified whereby environmental harm other than of a trivial nature is not caused.
- (A4-2) All petroleum product storage must be designed, constructed and maintained in accordance with Australian Standard 1940 - Storage and Handling of Flammable or Combustible Liquids.

Financial assurance

- (A5-1) Provide a financial assurance in the amount and form required by the administering authority prior to the commencement of the ERA.

NOTE: The calculation of financial assurance for condition (A5-1) must be in accordance with EPA Guideline 17 *Financial Assurance for Mining Activities* and may include a performance discount. The financial assurance amount is defined as the maximum total rehabilitation cost for complete rehabilitation of all significantly disturbed areas, which may vary on an annual basis due to progressive rehabilitation. The amount required for the financial assurance must be the highest Total Rehabilitation Cost calculated for any year of the Plan of Operations and calculated using the formula: Financial Assurance = Highest Total Annual Rehabilitation Cost x Percentage Required.

Release



- (A5-2) The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely.

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

Environmentally sensitive areas

- (A6-1) Mining activities must not be carried out in Endangered Regional Ecosystem 12.3.3 as shown on Figure 4 in Schedule I hereof.

END OF CONDITIONS FOR SCHEDULE A

Schedule B – Air

Dust nuisance

- (B1-1) The release of dust or other particulate matter resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B1-2) For the purposes of condition (B1-1), the ERA will not cause environmental nuisance where dust or other particulate matter resulting from the ERA does not exceed the following limits when measured at any sensitive place:
- (a) dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard 3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulates – Deposited matter – Gravimetric method ; or
 - (b) a concentration of suspended particulate matter with an aerodynamic diameter of less than 10 micrometres (μm) (PM10) of 150 micrograms per cubic metre over a 24 hour averaging time at a sensitive place downwind, when monitored in accordance with:
 - (i) Australian Standard AS 3580.9.6 Methods for sampling and analysis of ambient air – Determination of particulate matter – PM (sub) 10 high-volume sampler with size-selective inlet - Gravimetric method; or
 - (ii) any alternative method of monitoring PM10 which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.
- (B1-3) Dust or other particulate monitoring must be undertaken as directed by the administering authority to investigate any complaint of dust nuisance being caused by the ERA, which complaint in the opinion of an authorised person is not frivolous, vexatious nor based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. Monitoring must be carried out at a site relevant to the potentially affected sensitive place and at upwind control site(s) and must include:
- (a) for a complaint alleging dust nuisance, dust deposition; and
 - (b) for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of suspended PM10 over a 24hr averaging time.
- (B1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by dust or other particulate matter from the ERA, the authority holder must:

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- (a) address the complaint including the use of appropriate dispute resolution if required; or
- (b) immediately implement abatement measures so that emission of dust or other particulate matter from the ERA does not result in further environmental nuisance.

Odour nuisance

- (B2-1) Subject to condition (B2-2), the release of noxious or offensive odour or any other noxious or offensive airborne contaminant resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B2-2) Odour monitoring must be undertaken as directed by the administering authority to investigate any complaint of odour nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring.
- (B2-3) If an authorised person's opinion based on monitoring results or otherwise indicates that environmental nuisance is being caused by odour from the ERA, the authority holder must:
 - (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement odour abatement measures so that emission of odour from the ERA does not result in further environmental nuisance.

END OF CONDITIONS FOR SCHEDULE B

Schedule C – Water

Management of Stormwater

- (C1-1) Stormwater runoff from the site must be managed in accordance with the following hierarchy:
 - (a) avoidance – eg. prevent the amount of contaminated stormwater generated;
 - (b) reuse – eg. reuse contaminated stormwater;
 - (c) recycle – eg. treat contaminated stormwater for reuse; and
 - (d) disposal – eg. dispose of contaminated stormwater in a way that causes the least environmental harm and in accordance with the conditions of this authority.
- (C1-2) Erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment to any waters outside the site.
- (C1-3) The storage design criteria of any stormwater containment dam must be sufficient to contain the runoff expected from a 1 in 10 year AEP 24 hour rainfall event.

Release to waters

- (C2-1) Stormwater runoff from disturbed areas on the site must only be released to waters outside the site from the release points shown in Schedule I and listed in Schedule C – Table 1. Release of stormwater is permitted from the release points if caused by a rainfall event in excess of, or equal to, a 1 in 10 year AEP 24 hour rainfall event, for a period of no longer than 24 hours after cessation of the rainfall event, or otherwise when water is in compliance with the release limits stated in Schedule C - Table 2.

Release



Schedule C - Table 1 (Release points)

Release point	Easting (AMG)	Northing (AMG)
① - ML 1100	496 125	6951 125
② - ML1100	496 500	6950 250
③ - ML4622	483 500	6943 250
④ - ML4622	483 625	6944 125
⑤ - ML1106	496 000	6978 125

Schedule C - Table 2 (Release limits)

Parameter	Units	Minimum	Maximum
pH	-	6.5	8.5
Total Suspended Solids	mg/L	-	50
Conductivity	µs/cm	-	1500

- (C2-2) Contaminants must not be released from the site to any waters or to the bed and banks of any waters outside the site except in accordance with condition (C2-1).

END OF CONDITIONS FOR SCHEDULE C

Schedule D - Noise

Noise nuisance

- (D1-1) Subject to conditions (D1-2) and (D1-3), noise from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (D1-2) Noise monitoring must be undertaken as directed by the administering authority to investigate any complaint of noise nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. For the purposes of this condition, noise monitoring must be done in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual* and include:
- (a) $L_{A, max adj, T}$;
 - (b) relevant background sound level;
 - (c) the level and frequency of occurrence of impulsive or tonal noise;
 - (d) atmospheric conditions including wind speed and direction; and
 - (e) location, date and time of recording.

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- (D1-3) For the purposes of condition (D1-1), the ERA will not cause environmental nuisance where noise from the ERA does not exceed the limits specified in Schedule D - Table 1.
- (D1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by noise from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement noise abatement measures so that emissions of noise from the ERA do not result in further environmental nuisance.

Schedule D - Table 1 (Noise limits) *

Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
Noise measured at a 'Noise sensitive place'						
L_{Amax} adj, T	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)	Background + 0 dB(A)	Background + 0 dB(A)
Noise measured at a 'Commercial place'						
L_{Amax} adj, T	Background + 10 dB(A)	Background + 10 dB(A)	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)

Where "T" is 10 minutes and "Background" means background sound pressure level measured in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual*.

* Schedule D Table 1 does not purport to set operating hours for the ERA.

END OF CONDITIONS FOR SCHEDULE D

Schedule E – Waste

There are no conditions prescribed for this schedule.

END OF CONDITIONS FOR SCHEDULE E

Schedule F – Land

Buffer zones

- (F1-1) There must be no mining activities in the buffer zones shown on Figures 2 and 3 in Schedule I hereof other than for environmental control works (eg. noise bunds), access or provision of services and excepting for abutting mining lease boundaries where the mining leases are held by the holder of this environmental authority.

Rehabilitation landform criteria

- (F2-1) All areas significantly disturbed by mining activities must be rehabilitated in accordance with Schedule F – Table 1.

Release



Rehabilitation outcomes acceptance criteria (Industrial and Residential)

- (F3-1) For the purposes of Schedule F – Table 1, significantly disturbed land nominated for an industrial or residential rehabilitation outcome will be considered rehabilitated when the land is stabilised and does not, or will not, have potential to cause environmental harm.
- (F3-2) Despite condition (F3-1) and pending approval for surrender of this authority, the use of significantly disturbed land and/or mine voids remaining at the end of mine life for an industrial or residential rehabilitation outcome is subject to the operation of relevant legislation (eg. *Integrated Planning Act 1997*).
- (F3-3) Where requisite statutory approval(s) for a final land use and rehabilitation outcome described in Schedule F - Table 1 are not obtained, an alternative rehabilitation outcome must be nominated to the administering authority.

Rehabilitation outcomes acceptance criteria (Rural)

- (F4-1) For the purposes of Schedule F - Table 1, complete an investigation into rehabilitation of significantly disturbed areas nominated for rural rehabilitation outcome and submit a report to the administering authority proposing relevant rehabilitation acceptance criteria by 30 June 2009.
- (F4-2) All relevant areas significantly disturbed by the ERA must be rehabilitated in accordance with the acceptance criteria prescribed in the report required by condition (F4-1) as may be modified by the administering authority. Where no such modification is notified by the administering authority to the authority holder within six months of receipt of the report, then the acceptance criteria prescribed in the report will apply.

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

Tenure ID	Surface Disturbance Area (ha)	Rehabilitation Outcome
ML1100	48.35	Residential
ML1158	5.67	Residential
ML50121	0.95	Residential
ML1106	21.48	Rural or Residential
ML1171	12.75	Rural or Residential
ML50183	2.05	Rural or Residential
ML4622	38.60	Industrial (landfill)
ML50116	12.95	Industrial (landfill)
ML50117	10.67	Industrial (landfill)
ML4583	0	Industrial (landfill)

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Progressive rehabilitation

- (F5-1) The top layer and sub layers of the soil profile must be removed and stockpiled separately and retained for the purpose of rehabilitation of significantly disturbed areas.
- (F5-2) Commence progressive rehabilitation of significantly disturbed areas as soon as practicable or when:
- (a) the economic potential of the mineral resource in an area has been exhausted;
 - (b) an area is no longer required for the continuation of the mining activities; and
 - (c) an area is of no further beneficial use to the mining operation.

Infrastructure

- (F6-1) All infrastructure for the ERA including water storage structures, must be removed from the site prior to surrender hereof, except where otherwise agreed to in writing by the land owner and Mining Registrar at the relevant time.

NOTE: This condition is not applicable to the landowner also being the environmental authority holder at the relevant time.

END OF CONDITIONS FOR SCHEDULE F

Schedule G – Community

Complaint response

- (G1-1) All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.

END OF CONDITIONS FOR SCHEDULE 1G

Schedule H - Definitions

Definitions

- (H1-1) Words and phrases used in this authority are defined in Schedule H – Definitions. Where a definition for a term used in this authority is sought and the term is not defined herein, the definitions in the Environmental Protection Act 1994, regulations made under that Act, Environmental Protection Policies as amended from time to time or ordinary meaning must be used.

Interpretation

"EMOS" means the Environmental Management Overview Strategy report titled "Boral Bricks Pty Ltd Brisbane District Operations Environmental Management Overview Strategy" dated January 2003. Where required, interpretation of this environmental authority should be in the context of the EMOS.

"acceptance criteria" means the standards by which the actions implemented to rehabilitate land are deemed to be complete. The acceptance criteria relate to 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:



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- 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 collembola, 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; and
- vegetation water use and effects on ground water levels and catchment yields.

"AEP" means "annual exceedence probability" in relation to a given rainfall event, is the probability that the given event will be exceeded within a one year period. The AEP is usually expressed as "1 in n" (years) or as a percentage. The *given rainfall event* comprises a stated depth of rainfall received during a stated period: for example, 750 mm in one year, or 95 mm in 24 hours. If the 24-hour rainfall event having an AEP of 5% is, say, 120 mm, this means that for each year there will be 5% chance that the 24-hour rainfall will be 120 mm, or greater. Another way of expressing this is to say the Average Recurrence Interval is 20 years (Note that this does not mean only 1 occurrence in every 20 years, or only 5 occurrences per century).

"administering authority" means the Environmental Protection Agency or its successor.

"annual return" means the return required by the annual notice (under section 316 of the Environment Protection Act, 1994) for an environmental authority.

"approval" means development permit or preliminary approval decision notice or referral agency response under the Integrated Planning Act 1997.

"authorised place" means the place, land or premises authorised under this authority or approval for the carrying out of the specified environmentally relevant activities.

"authority" means level 1 licence, level 1 approval, level 2 approval or environmental authority (mining activities) under the Environmental Protection Act 1994.

"commercial place" means a place used as an office or for business or commercial purposes other than such a place on the land the subject of this environmental authority.

"competent person" means a person with sufficient demonstrated skill, knowledge and qualifications required to carry out a task to a necessary standard for protection of the environment.

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

"disturbed areas" or words to that effect means areas that comprise the active mine area, the process plant and the tailings area.

"dwelling" means any of the following structures or vehicles that is principally used as a place for human habitation-

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land; and
- a water craft in a marina.

"authority holder" means the person to whom an environmental authority is issued or transferred to, or a person acting under an environmental authority.

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"environmental harm" has the meaning given in the *Environmental Protection Act 1994*.

"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.

"intrusive noise" means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration -

- is clearly audible to, or can be felt by, an individual; and
- annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, reference should be made to Australian Standard 1055.2 - 1997 Acoustics - Description and Measurement of Environmental Noise Part 2 - Application to Specific Situations.

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

" $L_{A\ 1, \text{adj}, 10 \text{ mins}}$ " 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.

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

"land" includes waters and the atmosphere.

"mg/L" means milligrams per litre.

"noise sensitive place" means -

- a dwelling, mobile home or caravan park, residential marina or other residential premises;
 - a motel, hotel or hostel;
 - a kindergarten, school, university or other educational institution;
 - a medical centre or hospital;
 - a protected area; and
 - a park or gardens;
- and includes the curtilage of any such place.

"noxious" means harmful or injurious to health or physical well being.

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

"progressive rehabilitation" means rehabilitation (defined below) undertaken progressively or in stages as mining activities or operations are ongoing.

"protected area" means -

- a protected area under the Nature Conservation Act 1992;
- a marine park under the Marine Parks Act 1992; and
- a World Heritage Area.

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

"rehabilitation" means the process of reshaping and revegetating land to restore it to a stable post mining state and in accordance with the acceptance criteria, and where relevant includes remediation of contaminated land.

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

"sensitive place" means;

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises excluding accommodation for persons engaged in the mining activities;
- a motel, hotel or hostel;
- an educational institution;
- a medical centre or hospital;
- a public park or gardens (including a protected area); and
- a commercial place;

and includes the curtilage of any such place.

"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.

"significantly disturbed" or words to that effect means -

(a) contaminated land; or

(b) land that has been disturbed and human intervention is needed to rehabilitate it;

(i) including:

- 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 waters where mining project activities occur;
- areas submerged by tailings or hazardous contaminant storage dams in all cases;
- areas under temporary infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be removed after mining has ceased; or

(ii) not including

- areas off mining 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 administering authority, areas previously significantly disturbed which have not achieved the rehabilitation objectives due to circumstances beyond the control of the authority holder (such as climatic conditions);
- areas under permanent infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be lawfully left on the site post authority surrender.
- disturbances that pre-existed the grant of the mining tenure unless those areas are disturbed during the term of the tenure.

"site" means the place or premises to which this authority or approval relates.

"stable" means geotechnical stability of a rehabilitated landform where instability caused by settlement and subsidence has ceased.

"µs/cm" means micro semen per centimetre.

"waters" includes any watercourse, lake, lagoon, pond, swamp, wetland, bed and bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off or groundwater.

END OF CONDITIONS FOR SCHEDULE 1H

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Schedule I – Maps / Plans

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RTI Act 2009

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Environmental Authority No. M1241 (mining activities)

Section 240 Environmental Protection Act 1994

02195

This environmental authority is granted under the Environmental Protection Act 1994 and includes conditions. An environmental authority (mining activities) may be for mining activities authorised (under the Mineral Resources Act 1989) to occur under one of the following mining tenements: a prospecting permit; mining claim; exploration permit; mineral development licence; or mining lease. In general, a mining activity means: prospecting, exploring, mining; or processing minerals; remediation and rehabilitation.

Under the provisions of the *Environmental Protection Act 1994* this environmental authority is issued to:

Boral Bricks Pty Ltd
c/- Boral Limited
Level 39, 50 Bridge Street
SYDNEY NSW 2000

in respect of carrying out mining activities as part of the following mining project:

Type of environmental authority (mining activities)	Authorised mining tenements	Location
Mining Lease	1100, 1158, 50121	Darra
Mining Lease	4622, 50116, 50117, 4583	Redbank Plains
Mining Lease	1106, 1171, 50183	Strathpine

Pursuant to section 18(a) of the *Environmental Protection Act 1994* the above-described mining activities are an environmentally relevant activity ("ERA"). Those mining activities are hereby authorised to the extent defined in section 12(b) of Division 2, Part 2, Schedule 6 of the *Environmental Protection Regulation 1998* as follows:

Mining activities, other than a standard mining activity, carried out using equipment and plant having a mineral ore throughput of more than 100 000t, but less than 500 000t, a year.

This environmental authority is subject to the conditions set out in the attached schedules.

The anniversary date of this environmental authority is 30 June.

This amended environmental authority takes effect from 24 November 2004.

sch4p4(6) Personal informatio

Signed

Date

25/6/09

Rod Kent
Brisbane District, Southern Region
Delegate of Administering Authority
Environmental Protection Act 1994



**PART 1 - ENVIRONMENTAL AUTHORITY (MINING LEASE) – (Section 258
Environmental Protection Act 1994)**

This part is for carrying out an environmental authority (mining activities) for a mining lease under chapter 5, parts 1, 2 and 6 of the Environmental Protection Act 1994.

Schedule A - General conditions

Prevent or minimise likelihood of environmental harm

- (A1-1) In carrying out the ERA the authority holder must take reasonable and practicable measures to prevent or minimise the likelihood of environmental harm being caused. Any ERA that, if carried out incompetently or negligently may cause environmental harm, shall be carried out in a proper manner in accordance with the conditions of this authority.

Note. This authority authorises the ERA. It does not authorise environmental harm unless a condition hereof explicitly authorises that harm. Where there is no such condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

Maintenance of measures, plant and equipment

- (A2-1) The authority holder must:
- (a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this authority;
 - (b) maintain such measures, plant and equipment in a proper and efficient condition; and
 - (c) operate such measures, plant and equipment in a proper and efficient manner.

Monitoring

- (A3-1) Record, compile and keep for a minimum of five years the results of all monitoring required by this authority and make those records available for inspection upon request by the administering authority.
- (A3-2) Where monitoring is required by this authority, ensure that a competent person conducts all monitoring.

Storage and handling of flammable or combustible liquids

- (A4-1) Spillage of any flammable or combustible liquids must be contained on the site and rectified whereby environmental harm other than of a trivial nature is not caused.
- (A4-2) All petroleum product storage must be designed, constructed and maintained in accordance with Australian Standard 1940 - Storage and Handling of Flammable or Combustible Liquids.

Financial assurance

- (A5-1) Provide a financial assurance in the amount and form required by the administering authority prior to the commencement of the ERA.

NOTE: The calculation of financial assurance for condition (A5-1) must be in accordance with EPA Guideline 17 *Financial Assurance for Mining Activities* and may include a performance discount. The financial assurance amount is defined as the maximum total rehabilitation cost for complete rehabilitation of all significantly disturbed areas, which may vary on an annual basis due to progressive rehabilitation. The amount required for the financial assurance must be the highest Total Rehabilitation Cost calculated for any year of the Plan of Operations and calculated using the formula: Financial Assurance = Highest Total Annual Rehabilitation Cost x Percentage Required.

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- (A5-2) The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely.

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

Environmentally sensitive areas

- (A6-1) Mining activities must not be carried out in Endangered Regional Ecosystem 12.3.3 as shown on Figure 4 in Schedule I hereof.

END OF CONDITIONS FOR SCHEDULE A

Schedule B – Air

Dust nuisance

- (B1-1) The release of dust or other particulate matter resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B1-2) For the purposes of condition (B1-1), the ERA will not cause environmental nuisance where dust or other particulate matter resulting from the ERA does not exceed the following limits when measured at any sensitive place:
- (a) dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard 3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulates – Deposited matter – Gravimetric method; or
 - (b) a concentration of suspended particulate matter with an aerodynamic diameter of less than 10 micrometres (μm) (PM10) of 150 micrograms per cubic metre over a 24 hour averaging time at a sensitive place downwind, when monitored in accordance with:
 - (i) Australian Standard AS 3580.9.6 Methods for sampling and analysis of ambient air – Determination of particulate matter – PM (sub) 10 high-volume sampler with size-selective inlet - Gravimetric method; or
 - (ii) any alternative method of monitoring PM10 which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.
- (B1-3) Dust or other particulate monitoring must be undertaken as directed by the administering authority to investigate any complaint of dust nuisance being caused by the ERA, which complaint in the opinion of an authorised person is not frivolous, vexatious nor based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. Monitoring must be carried out at a site relevant to the potentially affected sensitive place and at upwind control site(s) and must include:
- (a) for a complaint alleging dust nuisance, dust deposition; and
 - (b) for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of suspended PM10 over a 24hr averaging time.
- (B1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by dust or other particulate matter from the ERA, the authority holder must:



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- (a) address the complaint including the use of appropriate dispute resolution if required; or
- (b) immediately implement abatement measures so that emission of dust or other particulate matter from the ERA does not result in further environmental nuisance.

Odour nuisance

- (B2-1) Subject to condition (B2-2), the release of noxious or offensive odour or any other noxious or offensive airborne contaminant resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B2-2) Odour monitoring must be undertaken as directed by the administering authority to investigate any complaint of odour nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring.
- (B2-3) If an authorised person's opinion based on monitoring results or otherwise indicates that environmental nuisance is being caused by odour from the ERA, the authority holder must:
 - (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement odour abatement measures so that emission of odour from the ERA does not result in further environmental nuisance.

END OF CONDITIONS FOR SCHEDULE B

Schedule C – Water

Management of Stormwater

- (C1-1) Stormwater runoff from the site must be managed in accordance with the following hierarchy:
 - (a) avoidance – eg. prevent the amount of contaminated stormwater generated;
 - (b) reuse – eg. reuse contaminated stormwater;
 - (c) recycle – eg. treat contaminated stormwater for reuse; and
 - (d) disposal – eg. dispose of contaminated stormwater in a way that causes the least environmental harm and in accordance with the conditions of this authority.
- (C1-2) Erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment to any waters outside the site.
- (C1-3) The storage design criteria of any stormwater containment dam must be sufficient to contain the runoff expected from a 1 in 10 year AEP 24 hour rainfall event.

Release to waters

- (C2-1) Stormwater runoff from disturbed areas on the site must only be released to waters outside the site from the release points shown in Schedule I and listed in Schedule C – Table 1. Release of stormwater is permitted from the release points if caused by a rainfall event in excess of, or equal to, a 1 in 10 year AEP 24 hour rainfall event, for a period of no longer than 24 hours after cessation of the rainfall event, or otherwise when water is in compliance with the release limits stated in Schedule C - Table 2.

Release



Schedule C - Table 1 (Release points)

Release point	Easting (AMG)	Northing (AMG)
① - ML 1100	496 125	6951 125
② - ML1100	496 500	6950 250
③ - ML4622	483 500	6943 250
④ - ML4622	483 625	6944 125
⑤ - ML1106	496 000	6978 125

Schedule C - Table 2 (Release limits)

Parameter	Units	Minimum	Maximum
pH	-	6.5	8.5
Total Suspended Solids	mg/L	-	50
Conductivity	µs/cm	-	1500

- (C2-2) Contaminants must not be released from the site to any waters or to the bed and banks of any waters outside the site except in accordance with condition (C2-1).

END OF CONDITIONS FOR SCHEDULE C

Schedule D - Noise

Noise nuisance

- (D1-1) Subject to conditions (D1-2) and (D1-3), noise from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (D1-2) Noise monitoring must be undertaken as directed by the administering authority to investigate any complaint of noise nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. For the purposes of this condition, noise monitoring must be done in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual* and include:
- (a) $L_{A, max adj, T}$;
 - (b) relevant background sound level;
 - (c) the level and frequency of occurrence of impulsive or tonal noise;
 - (d) atmospheric conditions including wind speed and direction; and
 - (e) location, date and time of recording.

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- (D1-3) For the purposes of condition (D1-1), the ERA will not cause environmental nuisance where noise from the ERA does not exceed the limits specified in Schedule D - Table 1.
- (D1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by noise from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement noise abatement measures so that emissions of noise from the ERA do not result in further environmental nuisance.

Schedule D - Table 1 (Noise limits) *

Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
Noise measured at a 'Noise sensitive place'						
L_{Amax} adj, T	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)	Background + 0 dB(A)	Background + 0 dB(A)
Noise measured at a 'Commercial place'						
L_{Amax} adj, T	Background + 10 dB(A)	Background + 10 dB(A)	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)

Where "T" is 10 minutes and "Background" means background sound pressure level measured in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual*.

* Schedule D Table 1 does not purport to set operating hours for the ERA.

END OF CONDITIONS FOR SCHEDULE D

Schedule E – Waste

There are no conditions prescribed for this schedule.

END OF CONDITIONS FOR SCHEDULE E

Schedule F – Land

Buffer zones

- (F1-1) There must be no mining activities in the buffer zones shown on Figures 2 and 3 in Schedule I hereof other than for environmental control works (eg. noise bunds), access or provision of services and excepting for abutting mining lease boundaries where the mining leases are held by the holder of this environmental authority.

Rehabilitation landform criteria

- (F2-1) All areas significantly disturbed by mining activities must be rehabilitated in accordance with Schedule F – Table 1.

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Rehabilitation outcomes acceptance criteria (Industrial and Residential)

- (F3-1) For the purposes of Schedule F – Table 1, significantly disturbed land nominated for an industrial or residential rehabilitation outcome will be considered rehabilitated when the land is stabilised and does not, or will not, have potential to cause environmental harm.
- (F3-2) Despite condition (F3-1) and pending approval for surrender of this authority, the use of significantly disturbed land and/or mine voids remaining at the end of mine life for an industrial or residential rehabilitation outcome is subject to the operation of relevant legislation (eg. *Integrated Planning Act 1997*).
- (F3-3) Where requisite statutory approval(s) for a final land use and rehabilitation outcome described in Schedule F - Table 1 are not obtained, an alternative rehabilitation outcome must be nominated to the administering authority.

Rehabilitation outcomes acceptance criteria (Rural)

- (F4-1) For the purposes of Schedule F - Table 1, complete an investigation into rehabilitation of significantly disturbed areas nominated for rural rehabilitation outcome and submit a report to the administering authority proposing relevant rehabilitation acceptance criteria by 30 June 2009.
- (F4-2) All relevant areas significantly disturbed by the ERA must be rehabilitated in accordance with the acceptance criteria prescribed in the report required by condition (F4-1) as may be modified by the administering authority. Where no such modification is notified by the administering authority to the authority holder within six months of receipt of the report, then the acceptance criteria prescribed in the report will apply.

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

Tenure ID	Surface Disturbance Area (ha)	Rehabilitation Outcome
ML1100	48.35	Residential
ML1158	5.67	Residential
ML50121	0.95	Residential
ML1106	21.48	Rural or Residential
ML1171	12.75	Rural or Residential
ML50183	2.05	Rural or Residential
ML4622	38.60	Industrial (landfill)
ML50116	12.95	Industrial (landfill)
ML50117	10.67	Industrial (landfill)
ML4583	0	Industrial (landfill)



Progressive rehabilitation

- (F5-1) The top layer and sub layers of the soil profile must be removed and stockpiled separately and retained for the purpose of rehabilitation of significantly disturbed areas.
- (F5-2) Commence progressive rehabilitation of significantly disturbed areas as soon as practicable or when:
- (a) the economic potential of the mineral resource in an area has been exhausted;
 - (b) an area is no longer required for the continuation of the mining activities; and
 - (c) an area is of no further beneficial use to the mining operation.

Infrastructure

- (F6-1) All infrastructure for the ERA including water storage structures, must be removed from the site prior to surrender hereof, except where otherwise agreed to in writing by the land owner and Mining Registrar at the relevant time.

NOTE: This condition is not applicable to the landowner also being the environmental authority holder at the relevant time.

END OF CONDITIONS FOR SCHEDULE F

Schedule G – Community

Complaint response

- (G1-1) All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.

END OF CONDITIONS FOR SCHEDULE 1G

Schedule H - Definitions

Definitions

- (H1-1) Words and phrases used in this authority are defined in Schedule H – Definitions. Where a definition for a term used in this authority is sought and the term is not defined herein, the definitions in the Environmental Protection Act 1994, regulations made under that Act, Environmental Protection Policies as amended from time to time or ordinary meaning must be used.

Interpretation

"EMOS" means the Environmental Management Overview Strategy report titled "Boral Bricks Pty Ltd Brisbane District Operations Environmental Management Overview Strategy" dated January 2003. Where required, interpretation of this environmental authority should be in the context of the EMOS.

"acceptance criteria" means the standards by which the actions implemented to rehabilitate land are deemed to be complete. The acceptance criteria relate to 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:



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- 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 collembola, 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; and
- vegetation water use and effects on ground water levels and catchment yields.

"AEP" means "annual exceedence probability" in relation to a given rainfall event, is the probability that the given event will be exceeded within a one year period. The AEP is usually expressed as "1 in n" (years) or as a percentage. The *given rainfall event* comprises a stated depth of rainfall received during a stated period: for example, 750 mm in one year, or 95 mm in 24 hours. If the 24-hour rainfall event having an AEP of 5% is, say, 120 mm, this means that for each year there will be 5% chance that the 24-hour rainfall will be 120 mm, or greater. Another way of expressing this is to say the Average Recurrence Interval is 20 years (Note that this does not mean only 1 occurrence in every 20 years, or only 5 occurrences per century).

"administering authority" means the Environmental Protection Agency or its successor.

"annual return" means the return required by the annual notice (under section 316 of the Environment Protection Act, 1994) for an environmental authority.

"approval" means development permit or preliminary approval decision notice or referral agency response under the Integrated Planning Act 1997.

"authorised place" means the place, land or premises authorised under this authority or approval for the carrying out of the specified environmentally relevant activities.

"authority" means level 1 licence, level 1 approval, level 2 approval or environmental authority (mining activities) under the Environmental Protection Act 1994.

"commercial place" means a place used as an office or for business or commercial purposes other than such a place on the land the subject of this environmental authority.

"competent person" means a person with sufficient demonstrated skill, knowledge and qualifications required to carry out a task to a necessary standard for protection of the environment.

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

"disturbed areas" or words to that effect means areas that comprise the active mine area, the process plant and the tailings area.

"dwelling" means any of the following structures or vehicles that is principally used as a place for human habitation-

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land; and
- a water craft in a marina.

"authority holder" means the person to whom an environmental authority is issued or transferred to, or a person acting under an environmental authority.

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"environmental harm" has the meaning given in the *Environmental Protection Act 1994*.

"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.

"intrusive noise" means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration -

- is clearly audible to, or can be felt by, an individual; and
- annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, reference should be made to Australian Standard 1055.2 - 1997 Acoustics - Description and Measurement of Environmental Noise Part 2 - Application to Specific Situations.

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

" $L_{A\ 1, \text{adj}, 10 \text{ mins}}$ " 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.

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

"land" includes waters and the atmosphere.

"mg/L" means milligrams per litre.

"noise sensitive place" means -

- a dwelling, mobile home or caravan park, residential marina or other residential premises;
 - a motel, hotel or hostel;
 - a kindergarten, school, university or other educational institution;
 - a medical centre or hospital;
 - a protected area; and
 - a park or gardens;
- and includes the curtilage of any such place.

"noxious" means harmful or injurious to health or physical well being.

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

"progressive rehabilitation" means rehabilitation (defined below) undertaken progressively or in stages as mining activities or operations are ongoing.

"protected area" means -

- a protected area under the Nature Conservation Act 1992;
- a marine park under the Marine Parks Act 1992; and
- a World Heritage Area.

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

"rehabilitation" means the process of reshaping and revegetating land to restore it to a stable post mining state and in accordance with the acceptance criteria, and where relevant includes remediation of contaminated land.

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

"sensitive place" means;

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises excluding accommodation for persons engaged in the mining activities;
- a motel, hotel or hostel;
- an educational institution;
- a medical centre or hospital;
- a public park or gardens (including a protected area); and
- a commercial place;

and includes the curtilage of any such place.

"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.

"significantly disturbed" or words to that effect means -

(a) contaminated land; or

(b) land that has been disturbed and human intervention is needed to rehabilitate it;

(i) including:

- 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 waters where mining project activities occur;
- areas submerged by tailings or hazardous contaminant storage dams in all cases;
- areas under temporary infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be removed after mining has ceased; or

(ii) not including

- areas off mining 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 administering authority, areas previously significantly disturbed which have not achieved the rehabilitation objectives due to circumstances beyond the control of the authority holder (such as climatic conditions);
- areas under permanent infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be lawfully left on the site post authority surrender.
- disturbances that pre-existed the grant of the mining tenure unless those areas are disturbed during the term of the tenure.

"site" means the place or premises to which this authority or approval relates.

"stable" means geotechnical stability of a rehabilitated landform where instability caused by settlement and subsidence has ceased.

"µs/cm" means micro semen per centimetre.

"waters" includes any watercourse, lake, lagoon, pond, swamp, wetland, bed and bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off or groundwater.

END OF CONDITIONS FOR SCHEDULE 1H

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Schedule I – Maps / Plans

Published on DES Disclosure Log
RTI Act 2009

Release



Enquiries Elizabeth Dunlop
Telephone (07) 3224 6246
Your reference
Our reference M1241/STH5149

Environmental Protection Agency

Incorporating the
Queensland Parks and Wildlife Service

25 June 2007

Tenures Unit
Department of Mines and Energy
PO BOX 1475
COORPAROO QLD 4151

02199

Dear Sir/Madam

Re: Partial Surrender of Environmental Authority (Mining Activities) M1241

Please find attached a 'Notice of decision to grant an application to surrender the whole or part of an environmental authority (mining activities)'. This is to replace the previous partial surrender notice sent to you by the EPA on 30 May 2007. This notice contained incorrect details. Please alter your records accordingly.

The following table indicates the adjustment (if any) required for the financial assurance.

EA Number	Mining Lease(s)	Part Surrender	Adjustment to Financial Assurance
M1241	4583 50117	Lot 2 RP71624 Lot 2 RP71624	No

If you have any questions please do not hesitate to contact Elizabeth Dunlop on telephone (07) 3224 6246.

Yours sincerely

sch4p4(6) Personal information

Rod Kent
Delegate
Environmental Protection Agency



Environmental Authority No. M1241 (mining activities)

Section 240 *Environmental Protection Act 1994*

This environmental authority is granted under the Environmental Protection Act 1994 and includes conditions. An environmental authority (mining activities) may be for mining activities authorised (under the Mineral Resources Act 1989) to occur under one of the following mining tenements: a prospecting permit; mining claim; exploration permit; mineral development licence; or mining lease. In general, a mining activity means: prospecting, exploring, mining; or processing minerals; remediation and rehabilitation.

Under the provisions of the *Environmental Protection Act 1994* this environmental authority is issued to:

Boral Bricks Pty Ltd
c/- Boral Limited
Level 39, 50 Bridge Street
SYDNEY NSW 2000

In respect of carrying out mining activities as part of the following mining project:

Type of environmental authority (mining activities)	Authorised mining tenements	Location
Mining Lease	1100, 1158, 50121	Darra
Mining Lease	4622, 50116, 50117, 4583	Redbank Plains
Mining Lease	1106, 1171, 50183	Strathpine

Pursuant to section 18(a) of the *Environmental Protection Act 1994* the above-described mining activities are an environmentally relevant activity ("ERA"). Those mining activities are hereby authorised to the extent defined in section 12(b) of Division 2, Part 2, Schedule 6 of the *Environmental Protection Regulation 1998* as follows:

Mining activities, other than a standard mining activity, carried out using equipment and plant having a mineral ore throughput of more than 100 000t, but less than 500 000t, a year.

This environmental authority is subject to the conditions set out in the attached schedules.

The anniversary date of this environmental authority is 30 June.

This amended environmental authority takes effect from 24 November 2004.

sch4p4(6) Personal informati

Signed

Date

26/6/05

Rod Kent
Manager
Delegate of Administering Authority
Environmental Protection Act 1994



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Environmental Protection Agency
Queensland Parks and Wildlife Service

PART 1 - ENVIRONMENTAL AUTHORITY (MINING LEASE) – (Section 258 *Environmental Protection Act 1994*)

This part is for carrying out an environmental authority (mining activities) for a mining lease under chapter 5, parts 1, 2 and 6 of the Environmental Protection Act 1994.

Schedule A - General conditions

Prevent or minimise likelihood of environmental harm

- (A1-1) In carrying out the ERA the authority holder must take reasonable and practicable measures to prevent or minimise the likelihood of environmental harm being caused. Any ERA that, if carried out incompetently or negligently may cause environmental harm, shall be carried out in a proper manner in accordance with the conditions of this authority.

Note. This authority authorises the ERA. It does not authorise environmental harm unless a condition hereof explicitly authorises that harm. Where there is no such condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

Maintenance of measures, plant and equipment

- (A2-1) The authority holder must:
- (a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this authority;
 - (b) maintain such measures, plant and equipment in a proper and efficient condition; and
 - (c) operate such measures, plant and equipment in a proper and efficient manner.

Monitoring

- (A3-1) Record, compile and keep for a minimum of five years the results of all monitoring required by this authority and make those records available for inspection upon request by the administering authority.
- (A3-2) Where monitoring is required by this authority, ensure that a competent person conducts all monitoring.

Storage and handling of flammable or combustible liquids

- (A4-1) Spillage of any flammable or combustible liquids must be contained on the site and rectified whereby environmental harm other than of a trivial nature is not caused.
- (A4-2) All petroleum product storage must be designed, constructed and maintained in accordance with Australian Standard 1940 - Storage and Handling of Flammable or Combustible Liquids.

Financial assurance

- (A5-1) Provide a financial assurance in the amount and form required by the administering authority prior to the commencement of the ERA.

NOTE: The calculation of financial assurance for condition (A5-1) must be in accordance with EPA Guideline 17 *Financial Assurance for Mining Activities* and may include a performance discount. The financial assurance amount is defined as the maximum total rehabilitation cost for complete rehabilitation of all significantly disturbed areas, which may vary on an annual basis due to progressive rehabilitation. The amount required for the financial assurance must be the highest Total Rehabilitation Cost calculated for any year of the Plan of Operations and calculated using the formula: Financial Assurance = Highest Total Annual Rehabilitation Cost x Percentage Required.

Release



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- (A5-2) The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely.

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

Environmentally sensitive areas

- (A6-1) Mining activities must not be carried out in Endangered Regional Ecosystem 12.3.3 as shown on Figure 4 in Schedule I hereof.

END OF CONDITIONS FOR SCHEDULE A

Schedule B – Air

Dust nuisance

- (B1-1) The release of dust or other particulate matter resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B1-2) For the purposes of condition (B1-1), the ERA will not cause environmental nuisance where dust or other particulate matter resulting from the ERA does not exceed the following limits when measured at any sensitive place:
- (a) dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard 3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulates – Deposited matter – Gravimetric method; or
 - (b) a concentration of suspended particulate matter with an aerodynamic diameter of less than 10 micrometres (μm) (PM10) of 150 micrograms per cubic metre over a 24 hour averaging time at a sensitive place downwind, when monitored in accordance with:
 - (i) Australian Standard AS 3580.9.6 Methods for sampling and analysis of ambient air – Determination of particulate matter – PM (sub) 10 high-volume sampler with size-selective inlet - Gravimetric method; or
 - (ii) any alternative method of monitoring PM10 which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.
- (B1-3) Dust or other particulate monitoring must be undertaken as directed by the administering authority to investigate any complaint of dust nuisance being caused by the ERA, which complaint in the opinion of an authorised person is not frivolous, vexatious nor based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. Monitoring must be carried out at a site relevant to the potentially affected sensitive place and at upwind control site(s) and must include:
- (a) for a complaint alleging dust nuisance, dust deposition; and
 - (b) for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of suspended PM10 over a 24hr averaging time.
- (B1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by dust or other particulate matter from the ERA, the authority holder must:

Release



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- (a) address the complaint including the use of appropriate dispute resolution if required; or
- (b) immediately implement abatement measures so that emission of dust or other particulate matter from the ERA does not result in further environmental nuisance.

Odour nuisance

- (B2-1) Subject to condition (B2-2), the release of noxious or offensive odour or any other noxious or offensive airborne contaminant resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B2-2) Odour monitoring must be undertaken as directed by the administering authority to investigate any complaint of odour nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring.
- (B2-3) If an authorised person's opinion based on monitoring results or otherwise indicates that environmental nuisance is being caused by odour from the ERA, the authority holder must:
 - (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement odour abatement measures so that emission of odour from the ERA does not result in further environmental nuisance.

END OF CONDITIONS FOR SCHEDULE B

Schedule C – Water

Management of Stormwater

- (C1-1) Stormwater runoff from the site must be managed in accordance with the following hierarchy:
 - (a) avoidance – eg. prevent the amount of contaminated stormwater generated;
 - (b) reuse – eg. reuse contaminated stormwater;
 - (c) recycle – eg. treat contaminated stormwater for reuse; and
 - (d) disposal – eg. dispose of contaminated stormwater in a way that causes the least environmental harm and in accordance with the conditions of this authority.
- (C1-2) Erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment to any waters outside the site.
- (C1-3) The storage design criteria of any stormwater containment dam must be sufficient to contain the runoff expected from a 1 in 10 year AEP 24 hour rainfall event.

Release to waters

- (C2-1) Stormwater runoff from disturbed areas on the site must only be released to waters outside the site from the release points shown in Schedule I and listed in Schedule C – Table 1. Release of stormwater is permitted from the release points if caused by a rainfall event in excess of, or equal to, a 1 in 10 year AEP 24 hour rainfall event, for a period of no longer than 24 hours after cessation of the rainfall event, or otherwise when water is in compliance with the release limits stated in Schedule C - Table 2.

Release



Schedule C - Table 1 (Release points)

Release point	Easting (AMG)	Northing (AMG)
① - ML 1100	496 125	6951 125
② - ML1100	496 500	6950 250
③ - ML4622	483 500	6943 250
④ - ML4622	483 625	6944 125
⑤ - ML1106	496 000	6978 125

Schedule C - Table 2 (Release limits)

Parameter	Units	Minimum	Maximum
pH	-	6.5	8.5
Total Suspended Solids	mg/L	-	50
Conductivity	µs/cm	-	1500

- (C2-2) Contaminants must not be released from the site to any waters or to the bed and banks of any waters outside the site except in accordance with condition (C2-1).

END OF CONDITIONS FOR SCHEDULE C

Schedule D - Noise

Noise nuisance

- (D1-1) Subject to conditions (D1-2) and (D1-3), noise from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (D1-2) Noise monitoring must be undertaken as directed by the administering authority to investigate any complaint of noise nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. For the purposes of this condition, noise monitoring must be done in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual* and include:
- (a) $L_{A, max adj, T}$;
 - (b) relevant background sound level;
 - (c) the level and frequency of occurrence of impulsive or tonal noise;
 - (d) atmospheric conditions including wind speed and direction; and
 - (e) location, date and time of recording.

Release



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- (D1-3) For the purposes of condition (D1-1), the ERA will not cause environmental nuisance where noise from the ERA does not exceed the limits specified in Schedule D - Table 1.
- (D1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by noise from the ERA, the authority holder must:
- address the complaint including the use of appropriate dispute resolution if required; or
 - immediately implement noise abatement measures so that emissions of noise from the ERA do not result in further environmental nuisance.

Schedule D - Table 1 (Noise limits) *

Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
Noise measured at a Noise sensitive place						
max adj, T	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)	Background + 0 dB(A)	Background + 0 dB(A)
Noise measured at a Commercial place						
max adj, T	Background + 10 dB(A)	Background + 10 dB(A)	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)

Where "T" is 10 minutes and "Background" means background sound pressure level measured in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual*.

* Schedule D Table 1 does not purport to set operating hours for the ERA.

END OF CONDITIONS FOR SCHEDULE D

Schedule E – Waste

There are no conditions prescribed for this schedule.

END OF CONDITIONS FOR SCHEDULE E

Schedule F – Land

Buffer zones

- (F1-1) There must be no mining activities in the buffer zones shown on Figures 2 and 3 in Schedule I hereof other than for environmental control works (eg. noise bunds), access or provision of services and excepting for abutting mining lease boundaries where the mining leases are held by the holder of this environmental authority.

Rehabilitation landform criteria

- (F2-1) All areas significantly disturbed by mining activities must be rehabilitated in accordance with Schedule F – Table 1.

Release



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Rehabilitation outcomes acceptance criteria (Industrial and Residential)

- (F3-1) For the purposes of Schedule F – Table 1, significantly disturbed land nominated for an industrial or residential rehabilitation outcome will be considered rehabilitated when the land is stabilised and does not, or will not, have potential to cause environmental harm.
- (F3-2) Despite condition (F3-1) and pending approval for surrender of this authority, the use of significantly disturbed land and/or mine voids remaining at the end of mine life for an industrial or residential rehabilitation outcome is subject to the operation of relevant legislation (eg. *Integrated Planning Act 1997*).
- (F3-3) Where requisite statutory approval(s) for a final land use and rehabilitation outcome described in Schedule F - Table 1 are not obtained, an alternative rehabilitation outcome must be nominated to the administering authority.

Rehabilitation outcomes acceptance criteria (Rural)

- (F4-1) For the purposes of Schedule F - Table 1, complete an investigation into rehabilitation of significantly disturbed areas nominated for rural rehabilitation outcome and submit a report to the administering authority proposing relevant rehabilitation acceptance criteria by 30 June 2009.
- (F4-2) All relevant areas significantly disturbed by the ERA must be rehabilitated in accordance with the acceptance criteria prescribed in the report required by condition (F4-1) as may be modified by the administering authority. Where no such modification is notified by the administering authority to the authority holder within six months of receipt of the report, then the acceptance criteria prescribed in the report will apply.

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

Lot/Title ID	Surface Disturbed Area (ha)	Rehabilitation Outcome
ML1100	48.35	Residential
ML1158	5.67	Residential
ML50121	0.95	Residential
ML1106	21.48	Rural or Residential
ML1171	12.75	Rural or Residential
ML50183	2.05	Rural or Residential
ML4622	38.60	Industrial (landfill)
ML50116	12.95	Industrial (landfill)
ML50117	10.67	Industrial (landfill)
ML4583	0	Industrial (landfill)

Release



Progressive rehabilitation

- (F5-1) The top layer and sub layers of the soil profile must be removed and stockpiled separately and retained for the purpose of rehabilitation of significantly disturbed areas.
- (F5-2) Commence progressive rehabilitation of significantly disturbed areas as soon as practicable or when:
- (a) the economic potential of the mineral resource in an area has been exhausted;
 - (b) an area is no longer required for the continuation of the mining activities; and
 - (c) an area is of no further beneficial use to the mining operation.

Infrastructure

- (F6-1) All infrastructure for the ERA including water storage structures, must be removed from the site prior to surrender hereof, except where otherwise agreed to in writing by the land owner and Mining Registrar at the relevant time.

NOTE: This condition is not applicable to the landowner also being the environmental authority holder at the relevant time.

END OF CONDITIONS FOR SCHEDULE F

Schedule G – Community

Complaint response

- (G1-1) All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.

END OF CONDITIONS FOR SCHEDULE 1G

Schedule H - Definitions

Definitions

- (H1-1) Words and phrases used in this authority are defined in Schedule H – Definitions. Where a definition for a term used in this authority is sought and the term is not defined herein, the definitions in the Environmental Protection Act 1994, regulations made under that Act, Environmental Protection Policies as amended from time to time or ordinary meaning must be used.

Interpretation

"EMOS" means the Environmental Management Overview Strategy report titled "Boral Bricks Pty Ltd Brisbane District Operations Environmental Management Overview Strategy" dated January 2003. Where required, interpretation of this environmental authority should be in the context of the EMOS.

"acceptance criteria" means the standards by which the actions implemented to rehabilitate land are deemed to be complete. The acceptance criteria relate to 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:

Release



Queensland Government

Environmental Protection Agency Queensland Parks and Wildlife Service

- 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 collembola, 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; and
- vegetation water use and effects on ground water levels and catchment yields.

"AEP" means "annual exceedence probability" in relation to a given rainfall event, is the probability that the given event will be exceeded within a one year period. The AEP is usually expressed as "1 in n" (years) or as a percentage. The *given rainfall event* comprises a stated depth of rainfall received during a stated period: for example, 750 mm in one year, or 95 mm in 24 hours. If the 24-hour rainfall event having an AEP of 5% is, say, 120 mm, this means that for each year there will be 5% chance that the 24-hour rainfall will be 120 mm, or greater. Another way of expressing this is to say the Average Recurrence Interval is 20 years (Note that this does not mean only 1 occurrence in every 20 years, or only 5 occurrences per century).

"administering authority" means the Environmental Protection Agency or its successor.

"annual return" means the return required by the annual notice (under section 316 of the Environment Protection Act, 1994) for an environmental authority.

"approval" means development permit or preliminary approval decision notice or referral agency response under the Integrated Planning Act 1997.

"authorised place" means the place, land or premises authorised under this authority or approval for the carrying out of the specified environmentally relevant activities.

"authority" means level 1 licence, level 1 approval, level 2 approval or environmental authority (mining activities) under the Environmental Protection Act 1994.

"commercial place" means a place used as an office or for business or commercial purposes other than such a place on the land the subject of this environmental authority.

"competent person" means a person with sufficient demonstrated skill, knowledge and qualifications required to carry out a task to a necessary standard for protection of the environment.

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

"disturbed areas" or words to that effect means areas that comprise the active mine area, the process plant and the tailings area.

"dwelling" means any of the following structures or vehicles that is principally used as a place for human habitation-

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land; and
- a water craft in a marina.

"authority holder" means the person to whom an environmental authority is issued or transferred to, or a person acting under an environmental authority.

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"environmental harm" has the meaning given in the *Environmental Protection Act 1994*.

"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.

"intrusive noise" means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration -

- is clearly audible to, or can be felt by, an individual; and
- annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, reference should be made to Australian Standard 1055.2 - 1997 Acoustics - Description and Measurement of Environmental Noise Part 2 - Application to Specific Situations.

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

" $L_{A 1, \text{adj}, 10 \text{ mins}}$ " 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.

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

"land" includes waters and the atmosphere.

"mg/L" means milligrams per litre.

"noise sensitive place" means -

- a dwelling, mobile home or caravan park, residential marina or other residential premises;
 - a motel, hotel or hostel;
 - a kindergarten, school, university or other educational institution;
 - a medical centre or hospital;
 - a protected area; and
 - a park or gardens;
- and includes the curtilage of any such place.

"noxious" means harmful or injurious to health or physical well being.

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

"progressive rehabilitation" means rehabilitation (defined below) undertaken progressively or in stages as mining activities or operations are ongoing.

"protected area" means -

- a protected area under the Nature Conservation Act 1992;
- a marine park under the Marine Parks Act 1992; and
- a World Heritage Area.

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

"rehabilitation" means the process of reshaping and revegetating land to restore it to a stable post mining state and in accordance with the acceptance criteria, and where relevant includes remediation of contaminated land.

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

"sensitive place" means;

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises excluding accommodation for persons engaged in the mining activities;
- a motel, hotel or hostel;
- an educational institution;
- a medical centre or hospital;
- a public park or gardens (including a protected area); and
- a commercial place;

and includes the curtilage of any such place.

"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.

"significantly disturbed" or words to that effect means -

(a) contaminated land; or

(b) land that has been disturbed and human intervention is needed to rehabilitate it;

(i) including:

- 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 waters where mining project activities occur;
- areas submerged by tailings or hazardous contaminant storage dams in all cases;
- areas under temporary infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be removed after mining has ceased; or

(ii) not including

- areas off mining 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 administering authority, areas previously significantly disturbed which have not achieved the rehabilitation objectives due to circumstances beyond the control of the authority holder (such as climatic conditions);
- areas under permanent infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be lawfully left on the site post authority surrender.
- disturbances that pre-existed the grant of the mining tenure unless those areas are disturbed during the term of the tenure.

"site" means the place or premises to which this authority or approval relates.

"stable" means geotechnical stability of a rehabilitated landform where instability caused by settlement and subsidence has ceased.

"µs/cm" means micro semen per centimetre.

"waters" includes any watercourse, lake, lagoon, pond, swamp, wetland, bed and bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off or groundwater.

END OF CONDITIONS FOR SCHEDULE 1H

Release



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Schedule I – Maps / Plans



Release



Enquiries Elizabeth Dunlop
Telephone (07) 3224 6246
Your reference
Our reference M1241/STH5149

Environmental Protection Agency
Incorporating the
Queensland Parks and Wildlife Service

Tenures Unit
Department of Mines and Energy
PO Box 1475
COORPAROO QLD 4151

02208

Dear Sir/Madam

Re: Partial Surrender of Environmental Authority (Mining Activities) M1241

Please find attached a 'Notice of decision to grant an application to surrender the whole or part of an environmental authority (mining activities)'. This is to replace the previous partial surrender notice sent to you by the EPA on 30 May 2007. This notice contained incorrect details. Please alter your records accordingly.

The following table indicates the adjustment (if any) required for the financial assurance.

EA Number	Mining Lease(s)	Part Surrender	Adjustment to Financial Assurance
M1241	4583 50117	Lot 2 RP71624 Lot 2 RP71624	No

If you have any questions please do not hesitate to contact Elizabeth Dunlop on telephone (07) 3224 6246.

Yours sincerely

sch4p4(6) Personal inform

Rod Kent
Delegate
Environmental Protection Agency

26/6/07

Notice

Environmental Protection Act 1994 Section 290

Notice of correction of an environmental authority (mining activities)

This notice is issued by the administering authority pursuant to section 290 of the Environmental Protection Act 1994 to advise you that it is proposed to amend an environmental authority (mining activities) to correct a clerical or formal error.

02210

Boral Bricks Pty Ltd
PO Box 3062
DARRA QLD 4076

Your reference :

Our reference : STH 5149 / M1241

Attention:

sch4p4(6) Person

Re: Environmental authority (mining lease), number M1241, held by Boral Bricks Pty Ltd.

You are hereby advised that the above mentioned environmental authority(mining lease), is to be amended in the following manner:

Amend the mining tenements listed on environmental authority M1241 held by Boral Bricks Pty Ltd to include mining leases ML 50117 and ML 4583.

If you consider that the above amendment may adversely affect the interests of Boral Bricks Pty Ltd, you are advised to contact Elizabeth Dunlop on 3224 6246, within 5 business days of receipt of this notice.

The amended environmental authority shall be forwarded to you within 10 business days.

Notice of correction of an environmental authority (mining activities)

<div>sch4p4(6) Personal information</div>
--

Signature

Rod Kent
Manager
Delegate of Administering Authority
Environmental Protection Act 1994

<div>26/6/07</div>
--

Date

Enquiries:
Southern Regional Office (Brisbane)
GPO Box 2771 BRISBANE QLD 4001
Ph. (07) 3224 3246
Fax. (07) 3225 8723

Notice of decision – Partial Surrender Application

This notice is issued by the Environmental Protection Agency to advise of a statutory decision on an application to partially surrender a permit¹ under environmental and/or conservation legislation

Boral Bricks Pty Ltd
PO Box 3062
DARRA QLD 4076

02209

Our reference: 175186

Attention: sch4p4(6) Person

Deal sch4p4(6) Pe

Re: Decision made in relation to your application under environmental legislation administered by the Environmental Protection Agency (EPA).

The EPA has assessed your application for Partial Surrender of your Non-Standard Environmental Authority (Mining Lease) number M1241 under the Environmental Protection Act 1994 received on 23 April 2007 and wishes to advise that the application has been granted.

The following lots have been surrendered:

Location Name: ML4583

Lot	Plan
2	RP71624

Location Name: ML50117

Lot	Plan
2	RP71624

If you require more information, please contact Elizabeth Dunlop on the telephone number listed below.

Yours sincerely

sch4p4(6) Personal in

Rod Kent
Delegate
Environmental Protection Agency

Enquiries:

Southern Regional Office (Brisbane)
GPO Box 2771 BRISBANE QLD 4001
Phone: (07) 3224 6246 Fax: (07) 3225 8723

¹ Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation administered by the Environmental Protection Agency and the Queensland Parks and Wildlife Service



Permit¹

Environmental Protection Act 1994 Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project

Permit¹ Number: MIN101329510

This permit is issued by the administering authority to authorise the activity specified in the permit in accordance with the conditions specified in the permit. This decision was made pursuant to Section 207 of the Environmental Protection Act 1994.

Takes Effect From: 29-APR-2010

Details

Permit Holder(s)	Name	Address
Principal Holder	Boral Bricks (Qld) Limited	c/-Boral Limited, Level 39, 50 Bridge Street SYDNEY NSW 2000

Activity(s)	Location(s)
Mining activity - schedule 6, item 12 a level 1 mining project, other than a level 1 mining project mentioned in items 1 to 11	ML1100 ML1106 ML1158 ML1171 ML4583 ML4622 ML50116 ML50117 ML50121

The anniversary date of the environmental authority is 18 December.

The environmental authority is subject to the attached conditions of approval.

sch4p4(6) Personal information

John Rice
Delegate
Administering authority
Environmental Protection Act 1994
26-MAY-2010

Enquiries:
Ipswich Office
1/114 Brisbane Street
Ipswich Qld 4305
PO Box 864
IPSWICH QLD 4305
Ph. 3381 7551
Fax. (07) 3381 7560

¹ Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation administered by the Department of Environment and Resource Management

**PART 1 - ENVIRONMENTAL AUTHORITY (MINING LEASE) – (Section 258
Environmental Protection Act 1994)**

This part is for carrying out an environmental authority (mining activities) for a mining lease under chapter 5, parts 1, 2 and 6 of the Environmental Protection Act 1994.

Schedule A - General conditions**Prevent or minimise likelihood of environmental harm**

- (A1-1) In carrying out the ERA the authority holder must take reasonable and practicable measures to prevent or minimise the likelihood of environmental harm being caused. Any ERA that, if carried out incompetently or negligently may cause environmental harm, shall be carried out in a proper manner in accordance with the conditions of this authority.

Note. This authority authorises the ERA. It does not authorise environmental harm unless a condition hereof explicitly authorises that harm. Where there is no such condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

Maintenance of measures, plant and equipment

- (A2-1) The authority holder must:
- (a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this authority;
 - (b) maintain such measures, plant and equipment in a proper and efficient condition; and
 - (c) operate such measures, plant and equipment in a proper and efficient manner.

Monitoring

- (A3-1) Record, compile and keep for a minimum of five years the results of all monitoring required by this authority and make those records available for inspection upon request by the administering authority.
- (A3-2) Where monitoring is required by this authority, ensure that a competent person conducts all monitoring.

Storage and handling of flammable or combustible liquids

- (A4-1) Spillage of any flammable or combustible liquids must be contained on the site and rectified whereby environmental harm other than of a trivial nature is not caused.
- (A4-2) All petroleum product storage must be designed, constructed and maintained in accordance with Australian Standard 1940 - Storage and Handling of Flammable or Combustible Liquids.

Financial assurance

- (A5-1) Provide a financial assurance in the amount and form required by the administering authority prior to the commencement of the ERA.

NOTE: The calculation of financial assurance for condition (A5-1) must be in accordance with EPA Guideline 17 *Financial Assurance for Mining Activities* and may include a performance discount. The financial assurance amount is defined as the maximum total rehabilitation cost for complete rehabilitation of all significantly disturbed areas, which may vary on an annual basis due to progressive rehabilitation. The amount required for the financial assurance must be the highest Total Rehabilitation Cost calculated for any year of the Plan of Operations and calculated using the formula: Financial Assurance = Highest Total Annual Rehabilitation Cost x Percentage Required.

- (A5-2) The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely.

Release

Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project
Permit¹ Number: MIN101329510

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

Environmentally sensitive areas

- (A6-1) Mining activities must not be carried out in Endangered Regional Ecosystem 12.3.3 as shown on Figure 4 in Schedule I hereof.

END OF CONDITIONS FOR SCHEDULE A

Schedule B – Air

Dust nuisance

- (B1-1) The release of dust or other particulate matter resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B1-2) For the purposes of condition (B1-1), the ERA will not cause environmental nuisance where dust or other particulate matter resulting from the ERA does not exceed the following limits when measured at any sensitive place:
- (a) dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard 3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulates – Deposited matter – Gravimetric method ; or
 - (b) a concentration of suspended particulate matter with an aerodynamic diameter of less than 10 micrometres (µm) (PM10) of 150 micrograms per cubic metre over a 24 hour averaging time at a sensitive place downwind, when monitored in accordance with:
 - (i) Australian Standard AS 3580.9.6 Methods for sampling and analysis of ambient air – Determination of particulate matter – PM (sub) 10 high-volume sampler with size-selective inlet - Gravimetric method; or
 - (ii) any alternative method of monitoring PM10 which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.
- (B1-3) Dust or other particulate monitoring must be undertaken as directed by the administering authority to investigate any complaint of dust nuisance being caused by the ERA, which complaint in the opinion of an authorised person is not frivolous, vexatious nor based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. Monitoring must be carried out at a site relevant to the potentially affected sensitive place and at upwind control site(s) and must include:
- (a) for a complaint alleging dust nuisance, dust deposition; and
 - (b) for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of suspended PM10 over a 24hr averaging time.
- (B1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by dust or other particulate matter from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement abatement measures so that emission of dust or other particulate matter from the ERA does not result in further environmental nuisance.

Odour nuisance

- (B2-1) Subject to condition (B2-2), the release of noxious or offensive odour or any other noxious or offensive airborne contaminant resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.

Release

Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project
Permit¹ Number: MIN101329510

- (B2-2) Odour monitoring must be undertaken as directed by the administering authority to investigate any complaint of odour nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring.
- (B2-3) If an authorised person's opinion based on monitoring results or otherwise indicates that environmental nuisance is being caused by odour from the ERA, the authority holder must:
- address the complaint including the use of appropriate dispute resolution if required; or
 - immediately implement odour abatement measures so that emission of odour from the ERA does not result in further environmental nuisance.

END OF CONDITIONS FOR SCHEDULE B

Schedule C – Water

Management of Stormwater

- (C1-1) Stormwater runoff from the site must be managed in accordance with the following hierarchy:
- avoidance – eg. prevent the amount of contaminated stormwater generated;
 - reuse – eg. reuse contaminated stormwater;
 - recycle – eg. treat contaminated stormwater for reuse; and
 - disposal – eg. dispose of contaminated stormwater in a way that causes the least environmental harm and in accordance with the conditions of this authority.
- (C1-2) Erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment to any waters outside the site.
- (C1-3) The storage design criteria of any stormwater containment dam must be sufficient to contain the runoff expected from a 1 in 10 year AEP 24 hour rainfall event.

Release to waters

- (C2-1) Stormwater runoff from disturbed areas on the site must only be released to waters outside the site from the release points shown in Schedule I and listed in Schedule C – Table 1. Release of stormwater is permitted from the release points if caused by a rainfall event in excess of, or equal to, a 1 in 10 year AEP 24 hour rainfall event, for a period of no longer than 24 hours after cessation of the rainfall event, or otherwise when water is in compliance with the release limits stated in Schedule C - Table 2.

Schedule C - Table 1 (Release points)

Release point	Easting (AMG)	Northing (AMG)
① - ML 1100	496 125	6951 125
② - ML1100	496 500	6950 250
③ - ML4622	483 500	6943 250
④ - ML4622	483 625	6944 125
⑤ - ML1106	496 000	6978 125

Release

Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project
Permit¹ Number: MIN101329510

Schedule C - Table 2 (Release limits)

Parameter	Units	Minimum	Maximum
pH	-	6.5	8.5
Total Suspended Solids	mg/L	-	50
Conductivity	µs/cm	-	1500

- (C2-2) Contaminants must not be released from the site to any waters or to the bed and banks of any waters outside the site except in accordance with condition (C2-1).

END OF CONDITIONS FOR SCHEDULE C

Schedule D - Noise

Noise nuisance

- (D1-1) Subject to conditions (D1-2) and (D1-3), noise from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (D1-2) Noise monitoring must be undertaken as directed by the administering authority to investigate any complaint of noise nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. For the purposes of this condition, noise monitoring must be done in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual* and include:
- (a) $L_{A, \max \text{ adj, T}}$;
 - (b) relevant background sound level;
 - (c) the level and frequency of occurrence of impulsive or tonal noise;
 - (d) atmospheric conditions including wind speed and direction; and
 - (e) location, date and time of recording.
- (D1-3) For the purposes of condition (D1-1), the ERA will not cause environmental nuisance where noise from the ERA does not exceed the limits specified in Schedule D - Table 1.
- (D1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by noise from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement noise abatement measures so that emissions of noise from the ERA do not result in further environmental nuisance.

Schedule D - Table 1 (Noise limits) *

Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
Noise measured at a 'Noise sensitive place'						
$L_{A, \max \text{ adj, T}}$	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)	Background + 0 dB(A)	Background + 0 dB(A)

Release



Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project
Permit¹ Number: MIN101329510

Noise measured at a 'Commercial place'						
$L_{A, \text{max adj, T}}$	Background + 10 dB(A)	Background + 10 dB(A)	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)

Where "T" is 10 minutes and "Background" means background sound pressure level measured in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual*.

* Schedule D Table 1 does not purport to set operating hours for the ERA.

END OF CONDITIONS FOR SCHEDULE D

Schedule E – Waste

There are no conditions prescribed for this schedule.

END OF CONDITIONS FOR SCHEDULE E

Schedule F – Land

Buffer zones

- (F1-1) There must be no mining activities in the buffer zones shown on Figures 2 and 3 in Schedule I hereof other than for environmental control works (eg. noise bunds), access or provision of services and excepting for abutting mining lease boundaries where the mining leases are held by the holder of this environmental authority.

Rehabilitation landform criteria

- (F2-1) All areas significantly disturbed by mining activities must be rehabilitated in accordance with Schedule F – Table 1.

Release

Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project
Permit¹ Number: MIN101329510

Rehabilitation outcomes acceptance criteria (Industrial and Residential)

- (F3-1) For the purposes of Schedule F – Table 1, significantly disturbed land nominated for an industrial or residential rehabilitation outcome will be considered rehabilitated when the land is stabilised and does not, or will not, have potential to cause environmental harm.
- (F3-2) Despite condition (F3-1) and pending approval for surrender of this authority, the use of significantly disturbed land and/or mine voids remaining at the end of mine life for an industrial or residential rehabilitation outcome is subject to the operation of relevant legislation (eg. *Integrated Planning Act 1997*).
- (F3-3) Where requisite statutory approval(s) for a final land use and rehabilitation outcome described in Schedule F - Table 1 are not obtained, an alternative rehabilitation outcome must be nominated to the administering authority.

Rehabilitation outcomes acceptance criteria (Rural)

- (F4-1) For the purposes of Schedule F - Table 1, complete an investigation into rehabilitation of significantly disturbed areas nominated for rural rehabilitation outcome and submit a report to the administering authority proposing relevant rehabilitation acceptance criteria by 30 June 2009.
- (F4-2) All relevant areas significantly disturbed by the ERA must be rehabilitated in accordance with the acceptance criteria prescribed in the report required by condition (F4-1) as may be modified by the administering authority. Where no such modification is notified by the administering authority to the authority holder within six months of receipt of the report, then the acceptance criteria prescribed in the report will apply.

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

Tenure ID	Surface Disturbance Area (ha)	Rehabilitation Outcome
ML1100	48.35	Residential
ML1158	5.67	Residential
ML50121	0.95	Residential
ML1106	21.48	Rural or Residential
ML1171	12.75	Rural or Residential
ML50183	2.05	Rural or Residential
ML4622	38.60	Industrial (landfill)
ML50116	12.95	Industrial (landfill)
ML50117	10.67	Industrial (landfill)
ML4583	0	Industrial (landfill)

Release



Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project
Permit¹ Number: MIN101329510

Progressive rehabilitation

- (F5-1) The top layer and sub layers of the soil profile must be removed and stockpiled separately and retained for the purpose of rehabilitation of significantly disturbed areas.
- (F5-2) Commence progressive rehabilitation of significantly disturbed areas as soon as practicable or when:
- (a) the economic potential of the mineral resource in an area has been exhausted;
 - (b) an area is no longer required for the continuation of the mining activities; and
 - (c) an area is of no further beneficial use to the mining operation.

Infrastructure

- (F6-1) All infrastructure for the ERA including water storage structures, must be removed from the site prior to surrender hereof, except where otherwise agreed to in writing by the land owner and Mining Registrar at the relevant time.

NOTE: This condition is not applicable to the landowner also being the environmental authority holder at the relevant time.

END OF CONDITIONS FOR SCHEDULE F

Schedule G – Community**Complaint response**

- (G1-1) All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.

END OF CONDITIONS FOR SCHEDULE 1G

Schedule H - Definitions**Definitions**

- (H1-1) Words and phrases used in this authority are defined in Schedule H – Definitions. Where a definition for a term used in this authority is sought and the term is not defined herein, the definitions in the Environmental Protection Act 1994, regulations made under that Act, Environmental Protection Policies as amended from time to time or ordinary meaning must be used.

Interpretation

"EMOS" means the Environmental Management Overview Strategy report titled "Boral Bricks Pty Ltd Brisbane District Operations Environmental Management Overview Strategy" dated January 2003. Where required, interpretation of this environmental authority should be in the context of the EMOS.

"acceptance criteria" means the standards by which the actions implemented to rehabilitate land are deemed to be complete. The acceptance criteria relate to 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:

Release

Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project
Permit¹ Number: MIN101329510

- 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 collembola, 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; and
- vegetation water use and effects on ground water levels and catchment yields.

"AEP" means "annual exceedence probability" in relation to a given rainfall event, is the probability that the given event will be exceeded within a one year period. The AEP is usually expressed as "1 in n" (years) or as a percentage. The *given rainfall event* comprises a stated depth of rainfall received during a stated period: for example, 750 mm in one year, or 95 mm in 24 hours. If the 24-hour rainfall event having an AEP of 5% is, say, 120 mm, this means that for each year there will be 5% chance that the 24-hour rainfall will be 120 mm, or greater. Another way of expressing this is to say the Average Recurrence Interval is 20 years (Note that this does not mean only 1 occurrence in every 20 years, or only 5 occurrences per century).

"administering authority" means the Environmental Protection Agency or its successor.

"annual return" means the return required by the annual notice (under section 316 of the Environment Protection Act, 1994) for an environmental authority.

"approval" means development permit or preliminary approval decision notice or referral agency response under the Integrated Planning Act 1997.

"authorised place" means the place, land or premises authorised under this authority or approval for the carrying out of the specified environmentally relevant activities.

"authority" means level 1 licence, level 1 approval, level 2 approval or environmental authority (mining activities) under the Environmental Protection Act 1994.

"commercial place" means a place used as an office or for business or commercial purposes other than such a place on the land the subject of this environmental authority.

"competent person" means a person with sufficient demonstrated skill, knowledge and qualifications required to carry out a task to a necessary standard for protection of the environment.

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

"disturbed areas" or words to that effect means areas that comprise the active mine area, the process plant and the tailings area.

"dwelling" means any of the following structures or vehicles that is principally used as a place for human habitation-

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land; and
- a water craft in a marina.

"authority holder" means the person to whom an environmental authority is issued or transferred to, or a person acting under an environmental authority.

"environmental harm" has the meaning given in the *Environmental Protection Act 1994*.

Release

Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project
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"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.

"intrusive noise" means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration -

- is clearly audible to, or can be felt by, an individual; and
- annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, reference should be made to Australian Standard 1055.2 - 1997 Acoustics - Description and Measurement of Environmental Noise Part 2 - Application to Specific Situations.

"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 tonal character and impulsiveness of the sound) and measured over any 10 minute period, using Fast response.

"land" includes waters and the atmosphere.

"mg/L" means milligrams per litre.

"noise sensitive place" means -

- a dwelling, mobile home or caravan park, residential marina or other residential premises;
- a motel, hotel or hostel;
- a kindergarten, school, university or other educational institution;
- a medical centre or hospital;
- a protected area; and
- a park or gardens;

and includes the curtilage of any such place.

"noxious" means harmful or injurious to health or physical well being.

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

"progressive rehabilitation" means rehabilitation (defined below) undertaken progressively or in stages as mining activities or operations are ongoing.

"protected area" means -

- a protected area under the Nature Conservation Act 1992;
- a marine park under the Marine Parks Act 2004; and
- a World Heritage Area.

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

"rehabilitation" means the process of reshaping and revegetating land to restore it to a stable post mining state and in accordance with the acceptance criteria, 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 to different phases of mining activities.

"sensitive place" means;

Release

Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project
Permit¹ Number: MIN101329510

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises excluding accommodation for persons engaged in the mining activities;
- a motel, hotel or hostel;
- an educational institution;
- a medical centre or hospital;
- a public park or gardens (including a protected area); and
- a commercial place;

and includes the curtilage of any such place.

"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.

"significantly disturbed" or words to that effect means -

(a) contaminated land; or

(b) land that has been disturbed and human intervention is needed to rehabilitate it;

(i) including:

- 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 waters where mining project activities occur;
- areas submerged by tailings or hazardous contaminant storage dams in all cases;
- areas under temporary infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be removed after mining has ceased;

or

(ii) not including

- areas off mining 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 administering authority, areas previously significantly disturbed which have not achieved the rehabilitation objectives due to circumstances beyond the control of the authority holder (such as climatic conditions);
- areas under permanent infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be lawfully left on the site post authority surrender.
- disturbances that pre-existed the grant of the mining tenure unless those areas are disturbed during the term of the tenure.

"site" means the place or premises to which this authority or approval relates.

"stable" means geotechnical stability of a rehabilitated landform where instability caused by settlement and subsidence has ceased.

"µs/cm" means micro semen per centimetre.

"waters" includes any watercourse, lake, lagoon, pond, swamp, wetland, bed and bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off or groundwater.

END OF CONDITIONS FOR SCHEDULE 1H

Schedule I – Maps / Plans

Release



Queensland
Government

Enquires
Telephone
Our Ref:

Kimberly Scanlon
(07) 3381 7550
IPS378

Department of
Environment and Resource
Management

13 May 2010

Boral Bricks (QLD) Limited
PO Box 3062
DARRA QLD 4076

CC: Department of Employment Economic
Development and Innovation
Mining Registrar
PO Box 1475
COORPAROO QLD 4102

Dear Sir / Madam

RE: Environmental Authority No. MIN101329510

The Department of Environment and Resource Management wishes to advise that environmental authority M1241 has been renumbered to MIN101329510 for administrative purposes. In future, please quote MIN101329510 when making reference to this mining project.

If you have any queries, please contact the Environmental Support Officer, Kimberly Scanlon on telephone (07) 3381 7550.

Yours sincerely,
sch4p4(6) Personal information

John Rice
A/Manager
Environmental Services –North (Ipswich)
Department of Environment and Resource Management

File No:

IPS2010/394

C1840378

13-May-2010



File A

1/114 Brisbane Street
Ipswich Qld 4305

PO Box 864
IPSWICH QLD 4305

Telephone (07) 3381 7550
Facsimile (07) 3381 7560
www.derm.qld.gov.au
ABN 46 640 294 485

Notice of Decision – Partial Surrender Application

This notice is issued by the Department of Environment and Resource Management to advise of a statutory decision made under section 277 of the Environmental Protection Act 1994.

The Mining Registrar
Department of Employment, Economic Development
and Innovation
PO Box 1475
COORPAROO QLD 4151

C/c CSR Building Products Limited
Groundwork Plus
Level 2, 15 Lang Parade
MILTON QLD 4064

Our Reference: 173392

Dear Craig Watson

Re: Partial surrender of environmental authority MIM900101302 (now MIN101671710)

DERM has assessed the application received on 16 August 2010 to surrender part of Strathpine Quarry from the environmental authority MIM900101302 (now MIN101671710) as shown in attached drawing number 1090.060 and wishes to advise you that the application has been granted.

If you require more information please contact Katrina Seitz, the Project Manager, on (07) 3406 2273.

sch4p4(6) Personal information

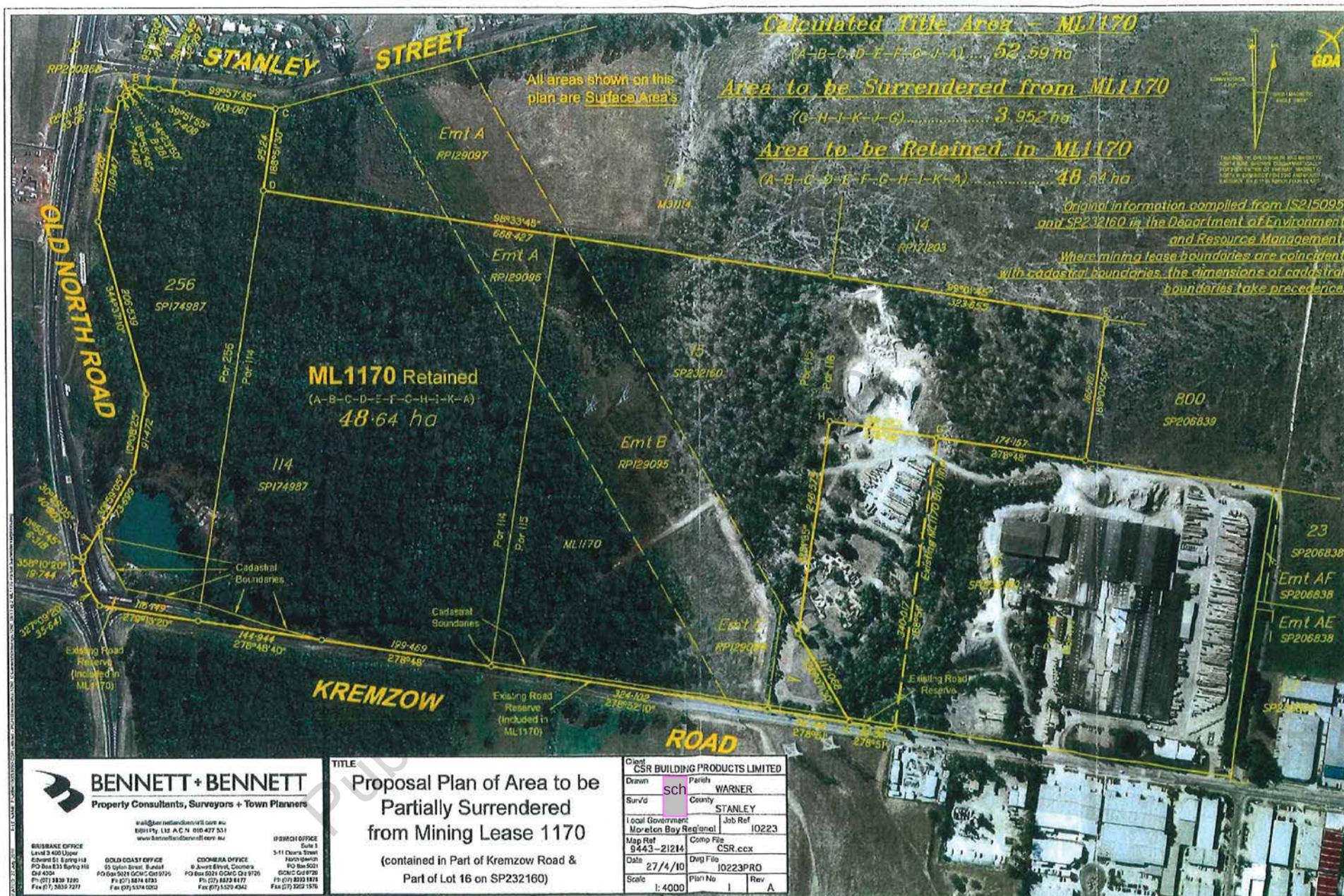
John Harden
Delegate
Department of Environment and Resource
Management
2 September 2010

Enquiries:

Level 4 LandCentre Corner Main and Vulture
Streets Woolloongabba
Queensland 4151 Australia
GPO Box 2771
Queensland 4001 Australia

Telephone 3406 2273

Facsimile 3406 2578



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GOLD COAST OFFICE
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PO Box 5011, Bundaberg
QLD 4670
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Fax (07) 5574 0000

COOMBERG OFFICE
6, Avondale Street, Coomberg
PO Box 5021, Coomberg
QLD 4700
Ph (07) 5574 0000
Fax (07) 5574 0000

SEARCH OFFICE
Suite 1
3-11 O'Brien Street
North Brisbane
PO Box 5021
QLD 4001
Ph (07) 5574 0000
Fax (07) 5574 0000

TITLE
Proposal Plan of Area to be Partially Surrendered from Mining Lease 1170
(contained in Part of Kremzow Road & Part of Lot 16 on SP232160)

Client	CSR BUILDING PRODUCTS LIMITED
Drawn	sch
Survd	County
Local Government	STANLEY
Map Ref	Job Ref
9443-21214	10223
Date	Comp File
27/4/10	CSR.ccx
Scale	Dwg File
1:4000	10223PRO
	Plan No
	I
	Rev
	A

<p>Legend:</p> <p>1:4,000</p> <p>0 80</p> <p>1090.060</p> <p>1:4,000</p> <p>0 80</p> <p>1090.060</p>	<p>Partial Surrender of ML 1170</p> <p>CSR Building Products Limited</p>	<p>Figure 2 - Image Map Showing Survey Plan of ML1170 and Proposed Surrender Area</p> <p>GROUNDWORK</p> <p>1:4,000</p> <p>0 80</p> <p>1090.060</p>
	<p>Partial Surrender of ML 1170</p> <p>CSR Building Products Limited</p>	

Environmental Protection Act 1994
Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project**Permit¹ Number: MIN101329510**

This permit is issued by the administering authority to authorise the activity specified in the permit in accordance with the conditions specified in the permit. This decision was made pursuant to Section 207 of the Environmental Protection Act 1994.

Takes Effect From: 22-NOV-2010**Details**

Permit Holder(s)	Name	Address
Principal Holder	Boral Bricks (Qld) Limited	c/-Boral Limited, Level 39, 50 Bridge Street SYDNEY NSW 2000

Activity(s)	Location(s)
Mining activity - schedule 6, item 12 a level 1 mining project, other than a level 1 mining project mentioned in items 1 to 11	ML1100 ML1106 ML1158 ML1171 ML4583 ML4622 ML50116 ML50117 ML50121 ML50183

The anniversary date of the environmental authority is 18 DECEMBER.

The environmental authority is subject to the attached conditions of approval.

sch4p4(6) Personal information

Scott Blanchard
Delegate
Administering authority
Environmental Protection Act 1994
22-NOV-2010

Enquiries:
Ipswich Office
1/114 Brisbane Street
Ipswich Qld 4305
PO Box 864
IPSWICH QLD 4305
Ph. 3381 7551
Fax. (07) 3381 7560

¹ Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation administered by the Department of Environment and Resource Management

**PART 1 - ENVIRONMENTAL AUTHORITY (MINING LEASE) – (Section 258
Environmental Protection Act 1994)**

This part is for carrying out an environmental authority (mining activities) for a mining lease under chapter 5, parts 1, 2 and 6 of the Environmental Protection Act 1994.

Schedule A - General conditions**Prevent or minimise likelihood of environmental harm**

- (A1-1) In carrying out the ERA the authority holder must take reasonable and practicable measures to prevent or minimise the likelihood of environmental harm being caused. Any ERA that, if carried out incompetently or negligently may cause environmental harm, shall be carried out in a proper manner in accordance with the conditions of this authority.

Note. This authority authorises the ERA. It does not authorise environmental harm unless a condition hereof explicitly authorises that harm. Where there is no such condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

Maintenance of measures, plant and equipment

- (A2-1) The authority holder must:
- (a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this authority;
 - (b) maintain such measures, plant and equipment in a proper and efficient condition; and
 - (c) operate such measures, plant and equipment in a proper and efficient manner.

Monitoring

- (A3-1) Record, compile and keep for a minimum of five years the results of all monitoring required by this authority and make those records available for inspection upon request by the administering authority.
- (A3-2) Where monitoring is required by this authority, ensure that a competent person conducts all monitoring.

Storage and handling of flammable or combustible liquids

- (A4-1) Spillage of any flammable or combustible liquids must be contained on the site and rectified whereby environmental harm other than of a trivial nature is not caused.
- (A4-2) All petroleum product storage must be designed, constructed and maintained in accordance with Australian Standard 1940 - Storage and Handling of Flammable or Combustible Liquids.

Financial assurance

- (A5-1) Provide a financial assurance in the amount and form required by the administering authority prior to the commencement of the ERA.

NOTE: The calculation of financial assurance for condition (A5-1) must be in accordance with EPA Guideline 17 *Financial Assurance for Mining Activities* and may include a performance discount. The financial assurance amount is defined as the maximum total rehabilitation cost for complete rehabilitation of all significantly disturbed areas, which may vary on an annual basis due to progressive rehabilitation. The amount required for the financial assurance must be the highest Total Rehabilitation Cost calculated for any year of the Plan of Operations and calculated using the formula: Financial Assurance = Highest Total Annual Rehabilitation Cost x Percentage Required.

- (A5-2) The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely.

Release



**Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project
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NOTE: Where progressive rehabilitation is completed, progressive reductions to the financial assurance amount will be applicable where rehabilitation has been completed in accordance with the acceptance criteria prescribed by this environmental authority to the satisfaction of the administering authority.

Environmentally sensitive areas

- (A6-1) Mining activities must not be carried out in Endangered Regional Ecosystem 12.3.3 as shown on Figure 4 in Schedule I hereof.

END OF CONDITIONS FOR SCHEDULE A**Schedule B – Air****Dust nuisance**

- (B1-1) The release of dust or other particulate matter resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B1-2) For the purposes of condition (B1-1), the ERA will not cause environmental nuisance where dust or other particulate matter resulting from the ERA does not exceed the following limits when measured at any sensitive place:
- (a) dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard 3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulates – Deposited matter – Gravimetric method ; or
 - (b) a concentration of suspended particulate matter with an aerodynamic diameter of less than 10 micrometres (µm) (PM10) of 150 micrograms per cubic metre over a 24 hour averaging time at a sensitive place downwind, when monitored in accordance with:
 - (i) Australian Standard AS 3580.9.6 Methods for sampling and analysis of ambient air – Determination of particulate matter – PM (sub) 10 high-volume sampler with size-selective inlet - Gravimetric method; or
 - (ii) any alternative method of monitoring PM10 which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.
- (B1-3) Dust or other particulate monitoring must be undertaken as directed by the administering authority to investigate any complaint of dust nuisance being caused by the ERA, which complaint in the opinion of an authorised person is not frivolous, vexatious nor based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. Monitoring must be carried out at a site relevant to the potentially affected sensitive place and at upwind control site(s) and must include:
- (a) for a complaint alleging dust nuisance, dust deposition; and
 - (b) for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of suspended PM10 over a 24hr averaging time.
- (B1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by dust or other particulate matter from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement abatement measures so that emission of dust or other particulate matter from the ERA does not result in further environmental nuisance.

Odour nuisance

- (B2-1) Subject to condition (B2-2), the release of noxious or offensive odour or any other noxious or offensive airborne contaminant resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.

Release



Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project
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- (B2-2) Odour monitoring must be undertaken as directed by the administering authority to investigate any complaint of odour nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring.
- (B2-3) If an authorised person's opinion based on monitoring results or otherwise indicates that environmental nuisance is being caused by odour from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement odour abatement measures so that emission of odour from the ERA does not result in further environmental nuisance.

END OF CONDITIONS FOR SCHEDULE B

Schedule C – Water

Management of Stormwater

- (C1-1) Stormwater runoff from the site must be managed in accordance with the following hierarchy:
- (a) avoidance – eg. prevent the amount of contaminated stormwater generated;
 - (b) reuse – eg. reuse contaminated stormwater;
 - (c) recycle – eg. treat contaminated stormwater for reuse; and
 - (d) disposal – eg. dispose of contaminated stormwater in a way that causes the least environmental harm and in accordance with the conditions of this authority.
- (C1-2) Erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment to any waters outside the site.
- (C1-3) The storage design criteria of any stormwater containment dam must be sufficient to contain the runoff expected from a 1 in 10 year AEP 24 hour rainfall event.

Release to waters

- (C2-1) Stormwater runoff from disturbed areas on the site must only be released to waters outside the site from the release points shown in Schedule I and listed in Schedule C – Table 1. Release of stormwater is permitted from the release points if caused by a rainfall event in excess of, or equal to, a 1 in 10 year AEP 24 hour rainfall event, for a period of no longer than 24 hours after cessation of the rainfall event, or otherwise when water is in compliance with the release limits stated in Schedule C - Table 2.

Schedule C - Table 1 (Release points)

Release point	Easting (AMG)	Northing (AMG)
① - ML 1100	496 125	6951 125
② - ML1100	496 500	6950 250
③ - ML4622	483 500	6943 250
④ - ML4622	483 625	6944 125
⑤ - ML1106	496 000	6978 125

Release

Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project
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Schedule C - Table 2 (Release limits)

Parameter	Units	Minimum	Maximum
pH	-	6.5	8.5
Total Suspended Solids	mg/L	-	50
Conductivity	µs/cm	-	1500

- (C2-2) Contaminants must not be released from the site to any waters or to the bed and banks of any waters outside the site except in accordance with condition (C2-1).

END OF CONDITIONS FOR SCHEDULE C

Schedule D - Noise

Noise nuisance

- (D1-1) Subject to conditions (D1-2) and (D1-3), noise from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (D1-2) Noise monitoring must be undertaken as directed by the administering authority to investigate any complaint of noise nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. For the purposes of this condition, noise monitoring must be done in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual* and include:
- (a) $L_{A, \text{max adj, T}}$;
 - (b) relevant background sound level;
 - (c) the level and frequency of occurrence of impulsive or tonal noise;
 - (d) atmospheric conditions including wind speed and direction; and
 - (e) location, date and time of recording.
- (D1-3) For the purposes of condition (D1-1), the ERA will not cause environmental nuisance where noise from the ERA does not exceed the limits specified in Schedule D - Table 1.
- (D1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by noise from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement noise abatement measures so that emissions of noise from the ERA do not result in further environmental nuisance.

Release



Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project
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Schedule D - Table 1 (Noise limits) *

Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
<i>Noise measured at a 'Noise sensitive place'</i>						
L _A , max adj, T	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)	Background + 0 dB(A)	Background + 0 dB(A)
<i>Noise measured at a 'Commercial place'</i>						
L _A , max adj, T	Background + 10 dB(A)	Background + 10 dB(A)	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)

Where "T" is 10 minutes and "Background" means background sound pressure level measured in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual*.

* Schedule D Table 1 does not purport to set operating hours for the ERA.

END OF CONDITIONS FOR SCHEDULE D

Schedule E – Waste

There are no conditions prescribed for this schedule.

END OF CONDITIONS FOR SCHEDULE E

Schedule F – Land

Buffer zones

- (F1-1) There must be no mining activities in the buffer zones shown on Figures 2 and 3 in Schedule I hereof other than for environmental control works (eg. noise bunds), access or provision of services and excepting for abutting mining lease boundaries where the mining leases are held by the holder of this environmental authority.

Rehabilitation landform criteria

- (F2-1) All areas significantly disturbed by mining activities must be rehabilitated in accordance with Schedule F – Table 1.

Release

Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project
Permit¹ Number: MIN101329510

Rehabilitation outcomes acceptance criteria (Industrial and Residential)

- (F3-1) For the purposes of Schedule F – Table 1, significantly disturbed land nominated for an industrial or residential rehabilitation outcome will be considered rehabilitated when the land is stabilised and does not, or will not, have potential to cause environmental harm.
- (F3-2) Despite condition (F3-1) and pending approval for surrender of this authority, the use of significantly disturbed land and/or mine voids remaining at the end of mine life for an industrial or residential rehabilitation outcome is subject to the operation of relevant legislation (eg. *Integrated Planning Act 1997*).
- (F3-3) Where requisite statutory approval(s) for a final land use and rehabilitation outcome described in Schedule F - Table 1 are not obtained, an alternative rehabilitation outcome must be nominated to the administering authority.

Rehabilitation outcomes acceptance criteria (Rural)

- (F4-1) For the purposes of Schedule F - Table 1, complete an investigation into rehabilitation of significantly disturbed areas nominated for rural rehabilitation outcome and submit a report to the administering authority proposing relevant rehabilitation acceptance criteria by 30 June 2009.
- (F4-2) All relevant areas significantly disturbed by the ERA must be rehabilitated in accordance with the acceptance criteria prescribed in the report required by condition (F4-1) as may be modified by the administering authority. Where no such modification is notified by the administering authority to the authority holder within six months of receipt of the report, then the acceptance criteria prescribed in the report will apply.

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

Tenure ID	Surface Disturbance Area (ha)	Rehabilitation Outcome
ML1100	48.35	Residential
ML1158	5.67	Residential
ML50121	0.95	Residential
ML1106	21.48	Rural or Residential
ML1171	12.75	Rural or Residential
ML50183	2.05	Rural or Residential
ML4622	38.60	Industrial (landfill)
ML50116	12.95	Industrial (landfill)
ML50117	10.67	Industrial (landfill)
ML4583	0	Industrial (landfill)

Release

Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project
Permit¹ Number: MIN101329510

Progressive rehabilitation

- (F5-1) The top layer and sub layers of the soil profile must be removed and stockpiled separately and retained for the purpose of rehabilitation of significantly disturbed areas.
- (F5-2) Commence progressive rehabilitation of significantly disturbed areas as soon as practicable or when:
- (a) the economic potential of the mineral resource in an area has been exhausted;
 - (b) an area is no longer required for the continuation of the mining activities; and
 - (c) an area is of no further beneficial use to the mining operation.

Infrastructure

- (F6-1) All infrastructure for the ERA including water storage structures, must be removed from the site prior to surrender hereof, except where otherwise agreed to in writing by the land owner and Mining Registrar at the relevant time.

NOTE: This condition is not applicable to the landowner also being the environmental authority holder at the relevant time.

END OF CONDITIONS FOR SCHEDULE F

Schedule G – Community**Complaint response**

- (G1-1) All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.

END OF CONDITIONS FOR SCHEDULE 1G

Schedule H - Definitions**Definitions**

- (H1-1) Words and phrases used in this authority are defined in Schedule H – Definitions. Where a definition for a term used in this authority is sought and the term is not defined herein, the definitions in the Environmental Protection Act 1994, regulations made under that Act, Environmental Protection Policies as amended from time to time or ordinary meaning must be used.

Interpretation

"EMOS" means the Environmental Management Overview Strategy report titled "Boral Bricks Pty Ltd Brisbane District Operations Environmental Management Overview Strategy" dated January 2003. Where required, interpretation of this environmental authority should be in the context of the EMOS.

"acceptance criteria" means the standards by which the actions implemented to rehabilitate land are deemed to be complete. The acceptance criteria relate to 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:

Release

Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project
Permit¹ Number: MIN101329510

- 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 collembola, 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; and
- vegetation water use and effects on ground water levels and catchment yields.

"AEP" means "annual exceedence probability" in relation to a given rainfall event, is the probability that the given event will be exceeded within a one year period. The AEP is usually expressed as "1 in n" (years) or as a percentage. The *given rainfall event* comprises a stated depth of rainfall received during a stated period: for example, 750 mm in one year, or 95 mm in 24 hours. If the 24-hour rainfall event having an AEP of 5% is, say, 120 mm, this means that for each year there will be 5% chance that the 24-hour rainfall will be 120 mm, or greater. Another way of expressing this is to say the Average Recurrence Interval is 20 years (Note that this does not mean only 1 occurrence in every 20 years, or only 5 occurrences per century).

"administering authority" means the Environmental Protection Agency or its successor.

"annual return" means the return required by the annual notice (under section 316 of the Environment Protection Act, 1994) for an environmental authority.

"approval" means development permit or preliminary approval decision notice or referral agency response under the Integrated Planning Act 1997.

"authorised place" means the place, land or premises authorised under this authority or approval for the carrying out of the specified environmentally relevant activities.

"authority" means level 1 licence, level 1 approval, level 2 approval or environmental authority (mining activities) under the Environmental Protection Act 1994.

"commercial place" means a place used as an office or for business or commercial purposes other than such a place on the land the subject of this environmental authority.

"competent person" means a person with sufficient demonstrated skill, knowledge and qualifications required to carry out a task to a necessary standard for protection of the environment.

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

"disturbed areas" or words to that effect means areas that comprise the active mine area, the process plant and the tailings area.

"dwelling" means any of the following structures or vehicles that is principally used as a place for human habitation-

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land; and
- a water craft in a marina.

"authority holder" means the person to whom an environmental authority is issued or transferred to, or a person acting under an environmental authority.

"environmental harm" has the meaning given in the *Environmental Protection Act 1994*.

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Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project
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"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.

"intrusive noise" means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration -

- is clearly audible to, or can be felt by, an individual; and
- annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, reference should be made to Australian Standard 1055.2 - 1997 Acoustics - Description and Measurement of Environmental Noise Part 2 - Application to Specific Situations.

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

" $L_{A\ 1, \text{adj}, 10 \text{ mins}}$ " 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.

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

"land" includes waters and the atmosphere.

"mg/L" means milligrams per litre.

"noise sensitive place" means -

- a dwelling, mobile home or caravan park, residential marina or other residential premises;
- a motel, hotel or hostel;
- a kindergarten, school, university or other educational institution;
- a medical centre or hospital;
- a protected area; and
- a park or gardens;

and includes the curtilage of any such place.

"noxious" means harmful or injurious to health or physical well being.

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

"progressive rehabilitation" means rehabilitation (defined below) undertaken progressively or in stages as mining activities or operations are ongoing.

"protected area" means -

- a protected area under the Nature Conservation Act 1992;
- a marine park under the Marine Parks Act 2004; and
- a World Heritage Area.

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

"rehabilitation" means the process of reshaping and revegetating land to restore it to a stable post mining state and in accordance with the acceptance criteria, 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 to different phases of mining activities.

"sensitive place" means;

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- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises excluding accommodation for persons engaged in the mining activities;
- a motel, hotel or hostel;
- an educational institution;
- a medical centre or hospital;
- a public park or gardens (including a protected area); and
- a commercial place;

and includes the curtilage of any such place.

"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.

"significantly disturbed" or words to that effect means -

- (a) contaminated land; or
- (b) land that has been disturbed and human intervention is needed to rehabilitate it;
 - (i) including:
 - 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 waters where mining project activities occur;
 - areas submerged by tailings or hazardous contaminant storage dams in all cases;
 - areas under temporary infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be removed after mining has ceased;
 - or
 - (ii) not including
 - areas off mining 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 administering authority, areas previously significantly disturbed which have not achieved the rehabilitation objectives due to circumstances beyond the control of the authority holder (such as climatic conditions);
 - areas under permanent infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be lawfully left on the site post authority surrender.
 - disturbances that pre-existed the grant of the mining tenure unless those areas are disturbed during the term of the tenure.

"site" means the place or premises to which this authority or approval relates.

"stable" means geotechnical stability of a rehabilitated landform where instability caused by settlement and subsidence has ceased.

"µs/cm" means micro semen per centimetre.

"waters" includes any watercourse, lake, lagoon, pond, swamp, wetland, bed and bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off or groundwater.

END OF CONDITIONS FOR SCHEDULE 1H

Schedule I – Maps / Plans

Release

Permit¹

Environmental Protection Act 1994 Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project

Permit¹ Number: MIN101329510

This permit is issued by the administering authority to authorise the activity specified in the permit in accordance with the conditions specified in the permit. This decision was made pursuant to Section 207 of the Environmental Protection Act 1994.

Takes Effect From: 14 MAR 2011

Details

Permit Holder(s)	Name	Address
Principal Holder	Boral Bricks (Qld) Limited	c/-Boral Limited, Level 39, 50 Bridge Street SYDNEY NSW 2000

Activity(s)	Location(s)
Mining activity - schedule 6, item 12 a level 1 mining project, other than a level 1 mining project mentioned in items 1 to 11	ML1100 ML1106 ML1158 ML1171 ML4583 ML4622 ML50116 ML50117 ML50121 ML50183

The anniversary date of the environmental authority is 18 DECEMBER.

The environmental authority is subject to the attached conditions of approval.

sch4p4(6) Personal information

John Harden
Delegate
Department of Environment and Resource
Management
14-MAR-2011

Enquiries:
Permit and Licence Management
Implementation & Support Unit
Department of Environment and Resource
Management
GPO Box 2454
Brisbane Queensland 4001
Phone: 1300 130 372
Fax: 07 3896 3342
E-mail: palm@derm.qld.gov.au

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

PART 1 - ENVIRONMENTAL AUTHORITY (MINING LEASE) – (Section 258 Environmental Protection Act 1994)

This part is for carrying out an environmental authority (mining activities) for a mining lease under chapter 5, parts 1, 2 and 6 of the Environmental Protection Act 1994.

Schedule A - General conditions

Prevent or minimise likelihood of environmental harm

- (A1-1) In carrying out the ERA the authority holder must take reasonable and practicable measures to prevent or minimise the likelihood of environmental harm being caused. Any ERA that, if carried out incompetently or negligently may cause environmental harm, shall be carried out in a proper manner in accordance with the conditions of this authority.

Note. This authority authorises the ERA. It does not authorise environmental harm unless a condition hereof explicitly authorises that harm. Where there is no such condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

Maintenance of measures, plant and equipment

- (A2-1) The authority holder must:
- (a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this authority;
 - (b) maintain such measures, plant and equipment in a proper and efficient condition; and
 - (c) operate such measures, plant and equipment in a proper and efficient manner.

Monitoring

- (A3-1) Record, compile and keep for a minimum of five years the results of all monitoring required by this authority and make those records available for inspection upon request by the administering authority.
- (A3-2) Where monitoring is required by this authority, ensure that a competent person conducts all monitoring.

Storage and handling of flammable or combustible liquids

- (A4-1) Spillage of any flammable or combustible liquids must be contained on the site and rectified whereby environmental harm other than of a trivial nature is not caused.
- (A4-2) All petroleum product storage must be designed, constructed and maintained in accordance with Australian Standard 1940 - Storage and Handling of Flammable or Combustible Liquids.

Financial assurance

- (A5-1) Provide a financial assurance in the amount and form required by the administering authority prior to the commencement of the ERA.

NOTE: The calculation of financial assurance for condition (A5-1) must be in accordance with EPA Guideline 17 *Financial Assurance for Mining Activities* and may include a performance discount. The financial assurance amount is defined as the maximum total rehabilitation cost for complete rehabilitation of all significantly disturbed areas, which may vary on an annual basis due to progressive rehabilitation. The amount required for the financial assurance must be the highest Total Rehabilitation Cost calculated for any year of the Plan of Operations and calculated using the formula: Financial Assurance = Highest Total Annual Rehabilitation Cost x Percentage Required.

- (A5-2) The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely.

**Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project
Permit¹ Number: MIN101329510**

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

Environmentally sensitive areas

- (A6-1) Mining activities must not be carried out in Endangered Regional Ecosystem 12.3.3 as shown on Figure 4 in Schedule I hereof.

END OF CONDITIONS FOR SCHEDULE A

Schedule B – Air

Dust nuisance

- (B1-1) The release of dust or other particulate matter resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B1-2) For the purposes of condition (B1-1), the ERA will not cause environmental nuisance where dust or other particulate matter resulting from the ERA does not exceed the following limits when measured at any sensitive place:
- (a) dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard 3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulates – Deposited matter – Gravimetric method ; or
 - (b) a concentration of suspended particulate matter with an aerodynamic diameter of less than 10 micrometres (µm) (PM10) of 150 micrograms per cubic metre over a 24 hour averaging time at a sensitive place downwind, when monitored in accordance with:
 - (i) Australian Standard AS 3580.9.6 Methods for sampling and analysis of ambient air – Determination of particulate matter – PM (sub) 10 high-volume sampler with size-selective inlet - Gravimetric method; or
 - (ii) any alternative method of monitoring PM10 which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.
- (B1-3) Dust or other particulate monitoring must be undertaken as directed by the administering authority to investigate any complaint of dust nuisance being caused by the ERA, which complaint in the opinion of an authorised person is not frivolous, vexatious nor based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. Monitoring must be carried out at a site relevant to the potentially affected sensitive place and at upwind control site(s) and must include:
- (a) for a complaint alleging dust nuisance, dust deposition; and
 - (b) for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of suspended PM10 over a 24hr averaging time.
- (B1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by dust or other particulate matter from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement abatement measures so that emission of dust or other particulate matter from the ERA does not result in further environmental nuisance.

Odour nuisance

- (B2-1) Subject to condition (B2-2), the release of noxious or offensive odour or any other noxious or offensive airborne contaminant resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B2-2) Odour monitoring must be undertaken as directed by the administering authority to investigate any complaint of odour nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring.

- (B2-3) If an authorised person's opinion based on monitoring results or otherwise indicates that environmental nuisance is being caused by odour from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement odour abatement measures so that emission of odour from the ERA does not result in further environmental nuisance.

END OF CONDITIONS FOR SCHEDULE B

Schedule C – Water

Management of Stormwater

- (C1-1) Stormwater runoff from the site must be managed in accordance with the following hierarchy:
- (a) avoidance – eg. prevent the amount of contaminated stormwater generated;
 - (b) reuse – eg. reuse contaminated stormwater;
 - (c) recycle – eg. treat contaminated stormwater for reuse; and
 - (d) disposal – eg. dispose of contaminated stormwater in a way that causes the least environmental harm and in accordance with the conditions of this authority.
- (C1-2) Erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment to any waters outside the site.
- (C1-3) The storage design criteria of any stormwater containment dam must be sufficient to contain the runoff expected from a 1 in 10 year AEP 24 hour rainfall event.

Release to waters

- (C2-1) Stormwater runoff from disturbed areas on the site must only be released to waters outside the site from the release points shown in Schedule I and listed in Schedule C – Table 1. Release of stormwater is permitted from the release points if caused by a rainfall event in excess of, or equal to, a 1 in 10 year AEP 24 hour rainfall event, for a period of no longer than 24 hours after cessation of the rainfall event, or otherwise when water is in compliance with the release limits stated in Schedule C - Table 2.

Schedule C - Table 1 (Release points)

Release point	Easting (AMG)	Northing (AMG)
① - ML 1100	496 125	6951 125
② - ML1100	496 500	6950 250
③ - ML4622	483 500	6943 250
④ - ML4622	483 625	6944 125
⑤ - ML1106	496 000	6978 125

Schedule C - Table 2 (Release limits)

Parameter	Units	Minimum	Maximum
pH	-	6.5	8.5
Total Suspended Solids	mg/L	-	50
Conductivity	µs/cm	-	1500

- (C2-2) Contaminants must not be released from the site to any waters or to the bed and banks of any waters outside the site except in accordance with condition (C2-1).

END OF CONDITIONS FOR SCHEDULE C

Schedule D - Noise

Noise nuisance

- (D1-1) Subject to conditions (D1-2) and (D1-3), noise from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (D1-2) Noise monitoring must be undertaken as directed by the administering authority to investigate any complaint of noise nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. For the purposes of this condition, noise monitoring must be done in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual* and include:
- (a) $L_{A, max adj, T}$;
 - (b) relevant background sound level;
 - (c) the level and frequency of occurrence of impulsive or tonal noise;
 - (d) atmospheric conditions including wind speed and direction; and
 - (e) location, date and time of recording.
- (D1-3) For the purposes of condition (D1-1), the ERA will not cause environmental nuisance where noise from the ERA does not exceed the limits specified in Schedule D - Table 1.
- (D1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by noise from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement noise abatement measures so that emissions of noise from the ERA do not result in further environmental nuisance.

Schedule D - Table 1 (Noise limits) *

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Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
<i>Noise measured at a 'Noisensitive place'</i>						
L _A , max adj, T	Background + 5 dB(A)	Background + 5 dB(A)	Background +3 dB(A)	Background +3 dB(A)	Background +0 dB(A)	Background + 0 dB(A)
<i>Noise measured at a 'Commercial place'</i>						
L _A , max adj, T	Background + 10 dB(A)	Background + 10 dB(A)	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)

Where "T" is 10 minutes and "Background" means background sound pressure level measured in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual*.
* Schedule D Table 1 does not purport to set operating hours for the ERA.

END OF CONDITIONS FOR SCHEDULE D

Schedule E – Waste

There are no conditions prescribed for this schedule.

END OF CONDITIONS FOR SCHEDULE E

Schedule F – Land

Buffer zones

- (F1-1) There must be no mining activities in the buffer zones shown on Figures 2 and 3 in Schedule I hereof other than for environmental control works (eg. noise bunds), access or provision of services and excepting for abutting mining lease boundaries where the mining leases are held by the holder of this environmental authority.

Rehabilitation landform criteria

- (F2-1) All areas significantly disturbed by mining activities must be rehabilitated in accordance with Schedule F – Table 1.

Rehabilitation outcomes acceptance criteria (Industrial and Residential)

- (F3-1) For the purposes of Schedule F – Table 1, significantly disturbed land nominated for an industrial or residential rehabilitation outcome will be considered rehabilitated when the land is stabilised and does not, or will not, have potential to cause environmental harm.
- (F3-2) Despite condition (F3-1) and pending approval for surrender of this authority, the use of significantly disturbed land and/or mine voids remaining at the end of mine life for an industrial or residential rehabilitation outcome is subject to the operation of relevant legislation (eg. *Integrated Planning Act 1997*).
- (F3-3) Where requisite statutory approval(s) for a final land use and rehabilitation outcome described in Schedule F - Table 1 are not obtained, an alternative rehabilitation outcome must be nominated to the administering authority.

Rehabilitation outcomes acceptance criteria (Rural)

- (F4-1) For the purposes of Schedule F - Table 1, complete an investigation into rehabilitation of significantly disturbed areas nominated for rural rehabilitation outcome and submit a report to the administering authority proposing relevant rehabilitation acceptance criteria by 30 June 2009.
- (F4-2) All relevant areas significantly disturbed by the ERA must be rehabilitated in accordance with the acceptance criteria prescribed in the report required by condition (F4-1) as may be modified by the administering authority. Where no such modification is notified by the administering authority to the authority holder within six months of receipt of the report, then the acceptance criteria prescribed in the report will apply.

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

Tenure ID	Surface Disturbance Area (ha)	Rehabilitation Outcome
ML1100	48.35	Residential
ML1158	5.67	Residential
ML50121	0.95	Residential
ML1106	21.48	Rural or Residential
ML1171	12.75	Rural or Residential
ML50183	2.05	Rural or Residential
ML4622	38.60	Industrial (landfill)
ML50116	12.95	Industrial (landfill)
ML50117	10.67	Industrial (landfill)
ML4583	0	Industrial (landfill)

Progressive rehabilitation

- (F5-1) The top layer and sub layers of the soil profile must be removed and stockpiled separately and retained for the purpose of rehabilitation of significantly disturbed areas.
- (F5-2) Commence progressive rehabilitation of significantly disturbed areas as soon as practicable or when:
- (a) the economic potential of the mineral resource in an area has been exhausted;
 - (b) an area is no longer required for the continuation of the mining activities; and
 - (c) an area is of no further beneficial use to the mining operation.

Infrastructure

- (F6-1) All infrastructure for the ERA including water storage structures, must be removed from the site prior to surrender hereof, except where otherwise agreed to in writing by the land owner and Mining Registrar at the relevant time.

NOTE: This condition is not applicable to the landowner also being the environmental authority holder at the relevant time.

END OF CONDITIONS FOR SCHEDULE F

Schedule G – Community

Complaint response

- (G1-1) All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.

END OF CONDITIONS FOR SCHEDULE 1G

Schedule H - Definitions

Definitions

- (H1-1) Words and phrases used in this authority are defined in Schedule H – Definitions. Where a definition for a term used in this authority is sought and the term is not defined herein, the definitions in the Environmental Protection Act 1994, regulations made under that Act, Environmental Protection Policies as amended from time to time or ordinary meaning must be used.

Interpretation

"EMOS" means the Environmental Management Overview Strategy report titled "Boral Bricks Pty Ltd Brisbane District Operations Environmental Management Overview Strategy" dated January 2003. Where required, interpretation of this environmental authority should be in the context of the EMOS.

"acceptance criteria" means the standards by which the actions implemented to rehabilitate land are deemed to be complete. The acceptance criteria relate to 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:

Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project
Permit¹ Number: MIN101329510

"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.

"intrusive noise" means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration -

- is clearly audible to, or can be felt by, an individual; and
- annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, reference should be made to Australian Standard 1055.2 - 1997 Acoustics - Description and Measurement of Environmental Noise Part 2 - Application to Specific Situations.

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"L_A, max adj, T" means the average maximum A-weighted sound pressure level (adjusted for tonal character and impulsiveness of the sound) and measured over any 10 minute period, using Fast response.

"land" includes waters and the atmosphere.

"mg/L" means milligrams per litre.

"noise sensitive place" means -

- a dwelling, mobile home or caravan park, residential marina or other residential premises;
 - a motel, hotel or hostel;
 - a kindergarten, school, university or other educational institution;
 - a medical centre or hospital;
 - a protected area; and
 - a park or gardens;
- and includes the curtilage of any such place.

"noxious" means harmful or injurious to health or physical well being.

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

"progressive rehabilitation" means rehabilitation (defined below) undertaken progressively or in stages as mining activities or operations are ongoing.

"protected area" means -

- a protected area under the Nature Conservation Act 1992;
- a marine park under the Marine Parks Act 2004; and
- a World Heritage Area.

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

"rehabilitation" means the process of reshaping and revegetating land to restore it to a stable post mining state and in accordance with the acceptance criteria, 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 to different phases of mining activities.

"sensitive place" means;

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises excluding accommodation for persons engaged in the mining activities;

Environmental Authority (Mining Lease) Non Code Compliant Level 1 Mining Project
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- 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 collembola, 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; and
- vegetation water use and effects on ground water levels and catchment yields.

"AEP" means "annual exceedence probability" in relation to a given rainfall event, is the probability that the given event will be exceeded within a one year period. The AEP is usually expressed as "1 in n" (years) or as a percentage. The *given rainfall event* comprises a stated depth of rainfall received during a stated period: for example, 750 mm in one year, or 95 mm in 24 hours. If the 24-hour rainfall event having an AEP of 5% is, say, 120 mm, this means that for each year there will be 5% chance that the 24-hour rainfall will be 120 mm, or greater. Another way of expressing this is to say the Average Recurrence Interval is 20 years (Note that this does not mean only 1 occurrence in every 20 years, or only 5 occurrences per century).

"administering authority" means the Environmental Protection Agency or its successor.

"annual return" means the return required by the annual notice (under section 316 of the Environment Protection Act, 1994) for an environmental authority.

"approval" means development permit or preliminary approval decision notice or referral agency response under the Integrated Planning Act 1997.

"authorised place" means the place, land or premises authorised under this authority or approval for the carrying out of the specified environmentally relevant activities.

"authority" means level 1 licence, level 1 approval, level 2 approval or environmental authority (mining activities) under the Environmental Protection Act 1994.

"commercial place" means a place used as an office or for business or commercial purposes other than such a place on the land the subject of this environmental authority.

"competent person" means a person with sufficient demonstrated skill, knowledge and qualifications required to carry out a task to a necessary standard for protection of the environment.

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

"disturbed areas" or words to that effect means areas that comprise the active mine area, the process plant and the tailings area.

"dwelling" means any of the following structures or vehicles that is principally used as a place for human habitation-

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land; and
- a water craft in a marina.

"authority holder" means the person to whom an environmental authority is issued or transferred to, or a person acting under an environmental authority.

"environmental harm" has the meaning given in the *Environmental Protection Act 1994*.

- a motel, hotel or hostel;
- an educational institution;
- a medical centre or hospital;
- a public park or gardens (including a protected area); and
- a commercial place;

and includes the curtilage of any such place.

"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.

"significantly disturbed" or words to that effect means -

(a) contaminated land; or

(b) land that has been disturbed and human intervention is needed to rehabilitate it;

(i) including:

- 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 waters where mining project activities occur;
 - areas submerged by tailings or hazardous contaminant storage dams in all cases;
 - areas under temporary infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be removed after mining has ceased;
- or

(ii) not including

- areas off mining 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 administering authority, areas previously significantly disturbed which have not achieved the rehabilitation objectives due to circumstances beyond the control of the authority holder (such as climatic conditions);
- areas under permanent infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be lawfully left on the site post authority surrender.
- disturbances that pre-existed the grant of the mining tenure unless those areas are disturbed during the term of the tenure.

"site" means the place or premises to which this authority or approval relates.

"stable" means geotechnical stability of a rehabilitated landform where instability caused by settlement and subsidence has ceased.

"µs/cm" means micro semen per centimetre.

"waters" includes any watercourse, lake, lagoon, pond, swamp, wetland, bed and bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off or groundwater.

END OF CONDITIONS FOR SCHEDULE 1H

Schedule I – Maps / Plans

Figure 1 - Darra

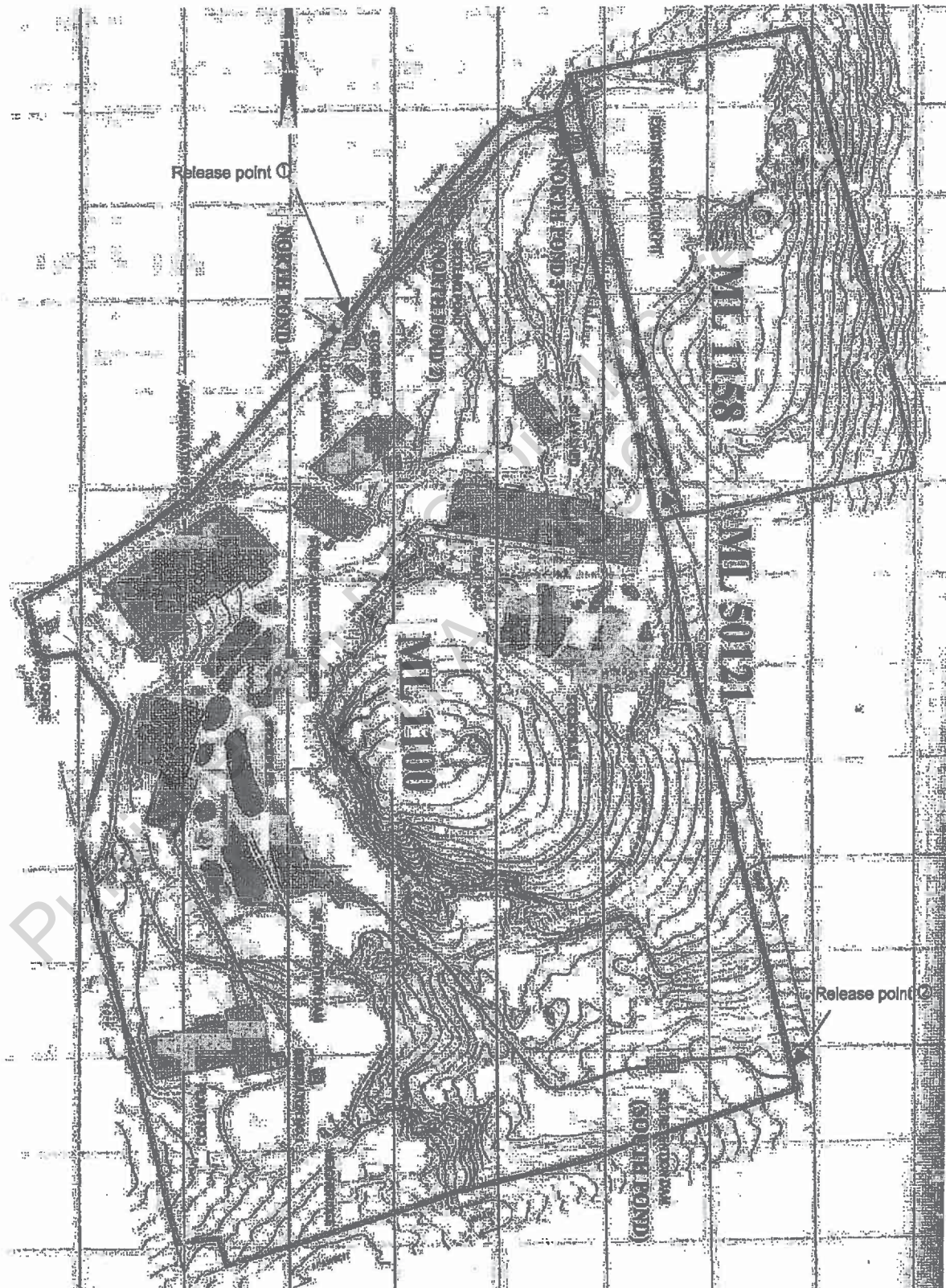


Figure 2 – Redbank Plains

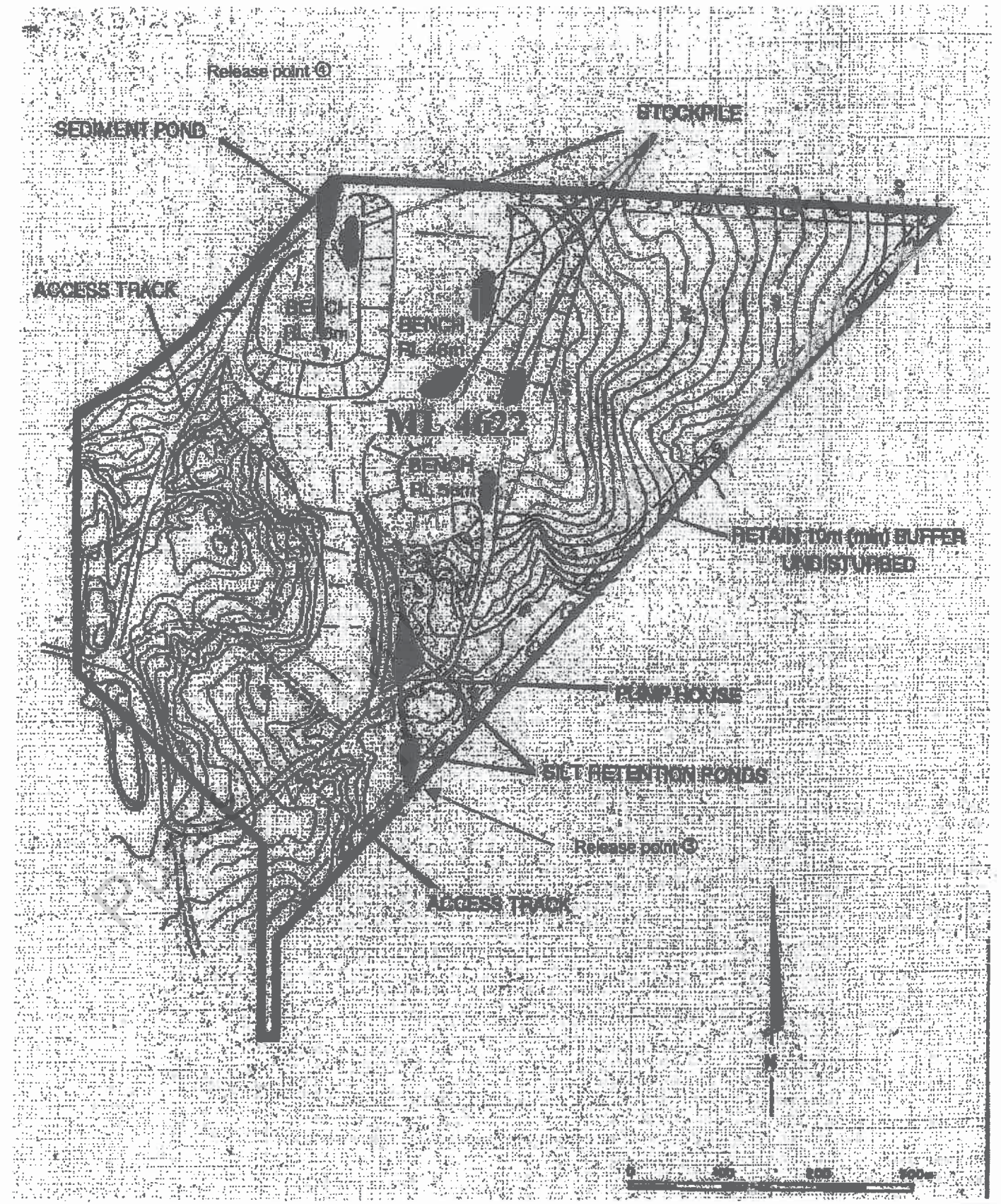
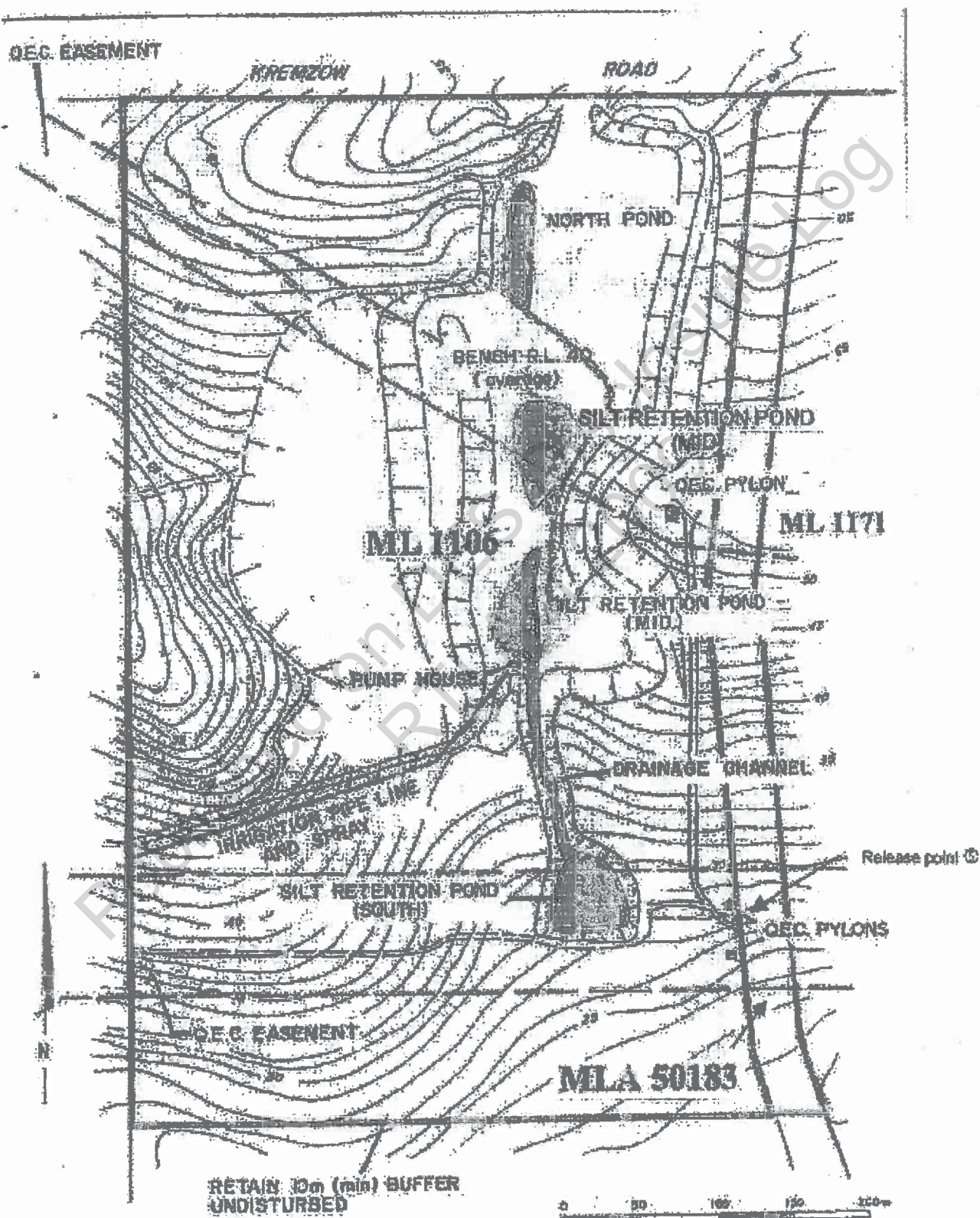


Figure 3 - Strathpine



sch4p4

173

Figure 4– Endangered Regional Ecosystem 12.3.3



END OF CONDITIONS FOR SCHEDULE I

END OF CONDITIONS

END OF ENVIRONMENTAL AUTHORITY

COPY

Notice

Environmental Protection Act 1994

Decision – Amendment Application

This notice is issued by the Department of Environment and Resource Management (DERM) to advise of a statutory decision made under section 258 of the Environmental Protection Act 1994.

Boral Bricks Pty Ltd
C/- Mining Tenement Services
GPO Box 215
Brisbane QLD 4001

C/c Boral Bricks (Qld) Limited
PO Box 3062
DARRA QLD 4076

The Mining Registrar
Department of Employment, Economic Development and
Innovation
PO Box 1475
Coorparoo QLD 4151

Our Reference: 175186

Dear Sir/Madam

Re: Amendment of environmental authority (mining activities) No. MIN101329510 for mining lease (ML) 1171

The department has assessed the application received on 04-FEB-2011 to amend environmental authority (mining activities) No. MIN101329510 and wishes to advise you that the application has been approved.

The following table indicates the adjustment (if any) required for the financial assurance.

Environmental authority	Tenure number	Financial assurance to be discharged
MIN101329510	ML1171	Nil

Please note that as a result of this partial surrender the submission of a new Plan of Operations (PoO) may be required where the amended Environmental Authority results in inconsistencies with your current PoO. In this instance, an amended PoO is required within 28 days of becoming aware of the inconsistency.

If you require more information please contact Jessica Johnson on 07 5459 6141.

sch4p4(6) Personal information

John Harden
Delegate
Department of Environment and Resource Management
14 March 2011

Enquiries:

Permit and Licence Management
Implementation & Support Unit
Department of Environment and
Resource Management
GPO Box 2454
Brisbane Queensland 4001
Phone: 1300 130 372
Fax: 07 3896 3342
E-mail: palm@derm.qld.gov.au

Sustainable Planning Act 2009

EHP Permit ¹ number: EPML004299213

This permit is issued by the administering authority to authorise the activity specified in the permit in accordance with the conditions specified in the permit. This decision was made pursuant to Section 207 of the Environmental Protection Act 1994.

Takes Effect From: 28 November 2013

Details

Permit Holder(s)	Name	Address
Principal Holder	Boral Bricks (Qld) Limited	c/-Boral Limited, Level 39, 50 Bridge Street SYDNEY NSW 2000

Activity(s)	Location(s)
Mining activity - schedule 6, item 12 a level 1 mining project, other than a level 1 mining project mentioned in items 1 to 11	ML1100 ML1106 ML1158 ML1171 ML4583 ML4622 ML50116 ML50117 ML50183

The anniversary date of the environmental authority is 18 DECEMBER.

The environmental authority is subject to the attached conditions of approval.

sch4p4(6) Personal information

David Cook
Delegate
Department of Environment and Heritage Protection
21-DEC-2013

Enquiries:
Permit and Licence Management
Department of Environment and Heritage Protection
GPO Box 2454
Brisbane Queensland 4001
Phone: 1300 130 372
Fax: 07 3330 5875
E-mail: palm@ehp.qld.gov.au

¹ Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation administered by the Department of Environment and Heritage Protection.

CONDITIONS

PART 1 - ENVIRONMENTAL AUTHORITY (MINING LEASE) – (Section 258 Environmental Protection Act 1994)

This part is for carrying out an environmental authority (mining activities) for a mining lease under chapter 5, parts 1, 2 and 6 of the Environmental Protection Act 1994.

Schedule A - General conditions

Prevent or minimise likelihood of environmental harm

- (A1-1) In carrying out the ERA the authority holder must take reasonable and practicable measures to prevent or minimise the likelihood of environmental harm being caused. Any ERA that, if carried out incompetently or negligently may cause environmental harm, shall be carried out in a proper manner in accordance with the conditions of this authority.

Note. This authority authorises the ERA. It does not authorise environmental harm unless a condition hereof explicitly authorises that harm. Where there is no such condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

Maintenance of measures, plant and equipment

- (A2-1) The authority holder must:
- (a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this authority;
 - (b) maintain such measures, plant and equipment in a proper and efficient condition; and
 - (c) operate such measures, plant and equipment in a proper and efficient manner.

Monitoring

- (A3-1) Record, compile and keep for a minimum of five years the results of all monitoring required by this authority and make those records available for inspection upon request by the administering authority.
- (A3-2) Where monitoring is required by this authority, ensure that a competent person conducts all monitoring.

Storage and handling of flammable or combustible liquids

- (A4-1) Spillage of any flammable or combustible liquids must be contained on the site and rectified whereby environmental harm other than of a trivial nature is not caused.
- (A4-2) All petroleum product storage must be designed, constructed and maintained in accordance with Australian Standard 1940 - Storage and Handling of Flammable or Combustible Liquids.

Financial assurance

- (A5-1) Provide a financial assurance in the amount and form required by the administering authority prior to the commencement of the ERA.

Release

NOTE: The calculation of financial assurance for condition (A5-1) must be in accordance with EPA Guideline 17 *Financial Assurance for Mining Activities* and may include a performance discount. The financial assurance amount is defined as the maximum total rehabilitation cost for complete rehabilitation of all significantly disturbed areas, which may vary on an annual basis due to progressive rehabilitation. The amount required for the financial assurance must be the highest Total Rehabilitation Cost calculated for any year of the Plan of Operations and calculated using the formula: Financial Assurance = Highest Total Annual Rehabilitation Cost x Percentage Required.

- (A5-2) The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely.

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

Environmentally sensitive areas

- (A6-1) Mining activities must not be carried out in Endangered Regional Ecosystem 12.3.3 as shown on Figure 4 in Schedule I hereof.

END OF CONDITIONS FOR SCHEDULE A

Schedule B – Air

Dust nuisance

- (B1-1) The release of dust or other particulate matter resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B1-2) For the purposes of condition (B1-1), the ERA will not cause environmental nuisance where dust or other particulate matter resulting from the ERA does not exceed the following limits when measured at any sensitive place:
- (a) dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard 3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulates – Deposited matter – Gravimetric method; or
 - (b) a concentration of suspended particulate matter with an aerodynamic diameter of less than 10 micrometres (µm) (PM10) of 150 micrograms per cubic metre over a 24 hour averaging time at a sensitive place downwind, when monitored in accordance with:
 - (i) Australian Standard AS 3580.9.6 Methods for sampling and analysis of ambient air – Determination of particulate matter – PM (sub) 10 high-volume sampler with size-selective inlet - Gravimetric method; or
 - (ii) any alternative method of monitoring PM10 which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.
- (B1-3) Dust or other particulate monitoring must be undertaken as directed by the administering authority to investigate any complaint of dust nuisance being caused by the ERA, which complaint in the opinion of an authorised person is not frivolous, vexatious nor based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. Monitoring must be carried out at a site relevant to the potentially affected sensitive place and at upwind control site(s) and must include:
- (a) for a complaint alleging dust nuisance, dust deposition; and
 - (b) for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of suspended PM10 over a 24hr averaging time.
- (B1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by dust or other particulate matter from the ERA, the authority holder must:

Release

- (a) address the complaint including the use of appropriate dispute resolution if required; or
- (b) immediately implement abatement measures so that emission of dust or other particulate matter from the ERA does not result in further environmental nuisance.

Odour nuisance

- (B2-1) Subject to condition (B2-2), the release of noxious or offensive odour or any other noxious or offensive airborne contaminant resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B2-2) Odour monitoring must be undertaken as directed by the administering authority to investigate any complaint of odour nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring.
- (B2-3) If an authorised person's opinion based on monitoring results or otherwise indicates that environmental nuisance is being caused by odour from the ERA, the authority holder must:
 - (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement odour abatement measures so that emission of odour from the ERA does not result in further environmental nuisance.

END OF CONDITIONS FOR SCHEDULE B

Schedule C – Water

Management of Stormwater

- (C1-1) Stormwater runoff from the site must be managed in accordance with the following hierarchy:
 - (a) avoidance – eg. prevent the amount of contaminated stormwater generated;
 - (b) reuse – eg. reuse contaminated stormwater;
 - (c) recycle – eg. treat contaminated stormwater for reuse; and
 - (d) disposal – eg. dispose of contaminated stormwater in a way that causes the least environmental harm and in accordance with the conditions of this authority.
- (C1-2) Erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment to any waters outside the site.
- (C1-3) The storage design criteria of any stormwater containment dam must be sufficient to contain the runoff expected from a 1 in 10 year AEP 24 hour rainfall event.

Release to waters

- (C2-1) Stormwater runoff from disturbed areas on the site must only be released to waters outside the site from the release points shown in Schedule I and listed in Schedule C – Table 1. Release of stormwater is permitted from the release points if caused by a rainfall event in excess of, or equal to, a 1 in 10 year AEP 24 hour rainfall event, for a period of no longer than 24 hours after cessation of the rainfall event, or otherwise when water is in compliance with the release limits stated in Schedule C - Table 2.

Schedule C - Table 1 (Release points)

Release

Release point	Easting (AMG)	Northing (AMG)
① - ML 1100	496 125	6951 125
② - ML1100	496 500	6950 250
③ - ML4622	483 500	6943 250
④ - ML4622	483 625	6944 125
⑤ - ML1106	496 000	6978 125

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RTI Act 2009

Release

Schedule C - Table 2 (Release limits)

Parameter	Units	Minimum	Maximum
pH	-	6.5	8.5
Total Suspended Solids	mg/L	-	50
Conductivity	µs/cm	-	1500

- (C2-2) Contaminants must not be released from the site to any waters or to the bed and banks of any waters outside the site except in accordance with condition (C2-1).

END OF CONDITIONS FOR SCHEDULE C

Schedule D - Noise

Noise nuisance

- (D1-1) Subject to conditions (D1-2) and (D1-3), noise from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (D1-2) Noise monitoring must be undertaken as directed by the administering authority to investigate any complaint of noise nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. For the purposes of this condition, noise monitoring must be done in accordance with the latest edition of the administering authority's *Noise Measurement Manual* and include:
- $L_{A, max adj, T}$;
 - relevant background sound level;
 - the level and frequency of occurrence of impulsive or tonal noise;
 - atmospheric conditions including wind speed and direction; and
 - location, date and time of recording.
- (D1-3) For the purposes of condition (D1-1), the ERA will not cause environmental nuisance where noise from the ERA does not exceed the limits specified in Schedule D - Table 1.
- (D1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by noise from the ERA, the authority holder must:
- address the complaint including the use of appropriate dispute resolution if required; or
 - immediately implement noise abatement measures so that emissions of noise from the ERA do not result in further environmental nuisance.

Release

Schedule D - Table 1 (Noise limits) *

Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
<i>Noise measured at a 'Noise sensitive place'</i>						
$L_{A, \max adj, T}$	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)	Background + 0 dB(A)	Background + 0 dB(A)
<i>Noise measured at a 'Commercial place'</i>						
$L_{A, \max adj, T}$	Background + 10 dB(A)	Background + 10 dB(A)	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)

Where "T" is 10 minutes and "Background" means background sound pressure level measured in accordance with the latest edition of the administering authority's *Noise Measurement Manual*.

* Schedule D Table 1 does not purport to set operating hours for the ERA.

END OF CONDITIONS FOR SCHEDULE D

Schedule E – Waste

There are no conditions prescribed for this schedule.

END OF CONDITIONS FOR SCHEDULE E

Schedule F – Land

Buffer zones

- (F1-1) There must be no mining activities in the buffer zones shown on Figures 2 and 3 in Schedule I hereof other than for environmental control works (eg. noise bunds), access or provision of services and excepting for abutting mining lease boundaries where the mining leases are held by the holder of this environmental authority.

Rehabilitation landform criteria

- (F2-1) All areas significantly disturbed by mining activities must be rehabilitated in accordance with Schedule F – Table 1.

Release

Rehabilitation outcomes acceptance criteria (Industrial and Residential)

- (F3-1) For the purposes of Schedule F – Table 1, significantly disturbed land nominated for an industrial or residential rehabilitation outcome will be considered rehabilitated when the land is stabilised and does not, or will not, have potential to cause environmental harm.
- (F3-2) Despite condition (F3-1) and pending approval for surrender of this authority, the use of significantly disturbed land and/or mine voids remaining at the end of mine life for an industrial or residential rehabilitation outcome is subject to the operation of relevant legislation (eg. *Integrated Planning Act 1997*).
- (F3-3) Where requisite statutory approval(s) for a final land use and rehabilitation outcome described in Schedule F - Table 1 are not obtained, an alternative rehabilitation outcome must be nominated to the administering authority.

Rehabilitation outcomes acceptance criteria (Rural)

- (F4-1) For the purposes of Schedule F - Table 1, complete an investigation into rehabilitation of significantly disturbed areas nominated for rural rehabilitation outcome and submit a report to the administering authority proposing relevant rehabilitation acceptance criteria by 30 June 2009.
- (F4-2) All relevant areas significantly disturbed by the ERA must be rehabilitated in accordance with the acceptance criteria prescribed in the report required by condition (F4-1) as may be modified by the administering authority. Where no such modification is notified by the administering authority to the authority holder within six months of receipt of the report, then the acceptance criteria prescribed in the report will apply.

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

Tenure ID	Surface Disturbance Area (ha)	Rehabilitation Outcome
ML1100	48.35	Residential
ML1158	5.67	Residential
ML1106	21.48	Rural or Residential
ML1171	12.75	Rural or Residential
ML50183	2.05	Rural or Residential
ML4622	38.60	Industrial (landfill)
ML50116	12.95	Industrial (landfill)
ML50117	10.67	Industrial (landfill)
ML4583	0	Industrial (landfill)

Release

Progressive rehabilitation

- (F5-1) The top layer and sub layers of the soil profile must be removed and stockpiled separately and retained for the purpose of rehabilitation of significantly disturbed areas.
- (F5-2) Commence progressive rehabilitation of significantly disturbed areas as soon as practicable or when:
- (a) the economic potential of the mineral resource in an area has been exhausted;
 - (b) an area is no longer required for the continuation of the mining activities; and
 - (c) an area is of no further beneficial use to the mining operation.

Infrastructure

- (F6-1) All infrastructure for the ERA including water storage structures, must be removed from the site prior to surrender hereof, except where otherwise agreed to in writing by the land owner and Mining Registrar at the relevant time.

NOTE: This condition is not applicable to the landowner also being the environmental authority holder at the relevant time.

END OF CONDITIONS FOR SCHEDULE F

Schedule G – Community

Complaint response

- (G1-1) All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.

END OF CONDITIONS FOR SCHEDULE 1G

Release

Schedule H - Definitions

Definitions

(H1-1) Words and phrases used in this authority are defined in Schedule H – Definitions. Where a definition for a term used in this authority is sought and the term is not defined herein, the definitions in the *Environmental Protection Act 1994*, regulations made under that Act, Environmental Protection Policies as amended from time to time or ordinary meaning must be used.

Interpretation

EMOS means the Environmental Management Overview Strategy report titled "Boral Bricks Pty Ltd Brisbane District Operations Environmental Management Overview Strategy" dated January 2003. Where required, interpretation of this environmental authority should be in the context of the EMOS.

acceptance criteria means the standards by which the actions implemented to rehabilitate land are deemed to be complete. The acceptance criteria relate to 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 collembola, 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; and
- vegetation water use and effects on ground water levels and catchment yields.

AEP means "annual exceedence probability" in relation to a given rainfall event, is the probability that the given event will be exceeded within a one year period. The AEP is usually expressed as "1 in n" (years) or as a percentage. The *given rainfall event* comprises a stated depth of rainfall received during a stated period: for example, 750 mm in one year, or 95 mm in 24 hours. If the 24-hour rainfall event having an AEP of 5% is, say, 120 mm, this means that for each year there will be 5% chance that the 24-hour rainfall will be 120 mm, or greater. Another way of expressing this is to say the Average Recurrence Interval is 20 years (Note that this does not mean only 1 occurrence in every 20 years, or only 5 occurrences per century).

administering authority means the Department of Environment and Heritage Protection or its successor.

annual return means the return required by the annual notice (under section 316 of the *Environmental Protection Act 1994*) for an environmental authority.

approval means development permit or preliminary approval decision notice or referral agency response under the *Sustainable Planning Act 2009*.

authorised place means the place, land or premises authorised under this authority or approval for the carrying out of the specified environmentally relevant activities.

authority means level 1 licence, level 1 approval, level 2 approval or environmental authority (mining activities) under the *Environmental Protection Act 1994*.

Release

commercial place means a place used as an office or for business or commercial purposes other than such a place on the land the subject of this environmental authority.

competent person means a person with sufficient demonstrated skill, knowledge and qualifications required to carry out a task to a necessary standard for protection of the environment.

dam means a containment whether permanent or temporary, which is designed to contain, divert or control flowing substances. The term does not include a fabricated or manufactured tank or container designed to a recognised standard.

disturbed areas or words to that effect means areas that comprise the active mine area, the process plant and the tailings area.

dwelling means any of the following structures or vehicles that is principally used as a place for human habitation-

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land; and
- a water craft in a marina.

authority holder means the person to whom an environmental authority is issued or transferred to, or a person acting under an environmental authority.

environmental harm has the meaning given in the *Environmental Protection Act 1994*.

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.

intrusive noise means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration -

- is clearly audible to, or can be felt by, an individual; and
- annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, reference should be made to Australian Standard 1055.2 - 1997 Acoustics - Description and Measurement of Environmental Noise Part 2 - Application to Specific Situations.

$L_{A10, adj, 10 mins}$ 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 tonal character and impulsiveness of the sound) and measured over any 10 minute period, using Fast response.

land includes waters and the atmosphere.

mg/L means milligrams per litre.

noise sensitive place means -

- a dwelling, mobile home or caravan park, residential marina or other residential premises;
- a motel, hotel or hostel;
- a kindergarten, school, university or other educational institution;
- a medical centre or hospital;
- a protected area; and

Release

- a park or gardens;
and includes the curtilage of any such place.

noxious means harmful or injurious to health or physical well being.

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

progressive rehabilitation means rehabilitation (defined below) undertaken progressively or in stages as mining activities or operations are ongoing.

protected area means -

- a protected area under the *Nature Conservation Act 1992*;
- a marine park under the *Marine Parks Act 2004*; and
- a World Heritage Area.

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

rehabilitation means the process of reshaping and revegetating land to restore it to a stable post mining state and in accordance with the acceptance criteria, 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 to different phases of mining activities.

sensitive place means;

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises excluding accommodation for persons engaged in the mining activities;
- a motel, hotel or hostel;
- an educational institution;
- a medical centre or hospital;
- a public park or gardens (including a protected area); and
- a commercial place;

and includes the curtilage of any such place.

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.

significantly disturbed or words to that effect means -

(a) contaminated land; or

(b) land that has been disturbed and human intervention is needed to rehabilitate it;

(i) including:

- 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 waters where mining project activities occur;
- areas submerged by tailings or hazardous contaminant storage dams in all cases;
- areas under temporary infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be removed after mining has ceased;

or

(ii) not including

- areas off mining lease (e.g. roads or tracks which provide access to the mining lease);

Release

- areas previously significantly disturbed which have achieved the rehabilitation outcomes;
- by agreement with the administering authority, areas previously significantly disturbed which have not achieved the rehabilitation objectives due to circumstances beyond the control of the authority holder (such as climatic conditions);
- areas under permanent infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be lawfully left on the site post authority surrender.
- disturbances that pre-existed the grant of the mining tenure unless those areas are disturbed during the term of the tenure.

site means the place or premises to which this authority or approval relates.

stable means geotechnical stability of a rehabilitated landform where instability caused by settlement and subsidence has ceased.

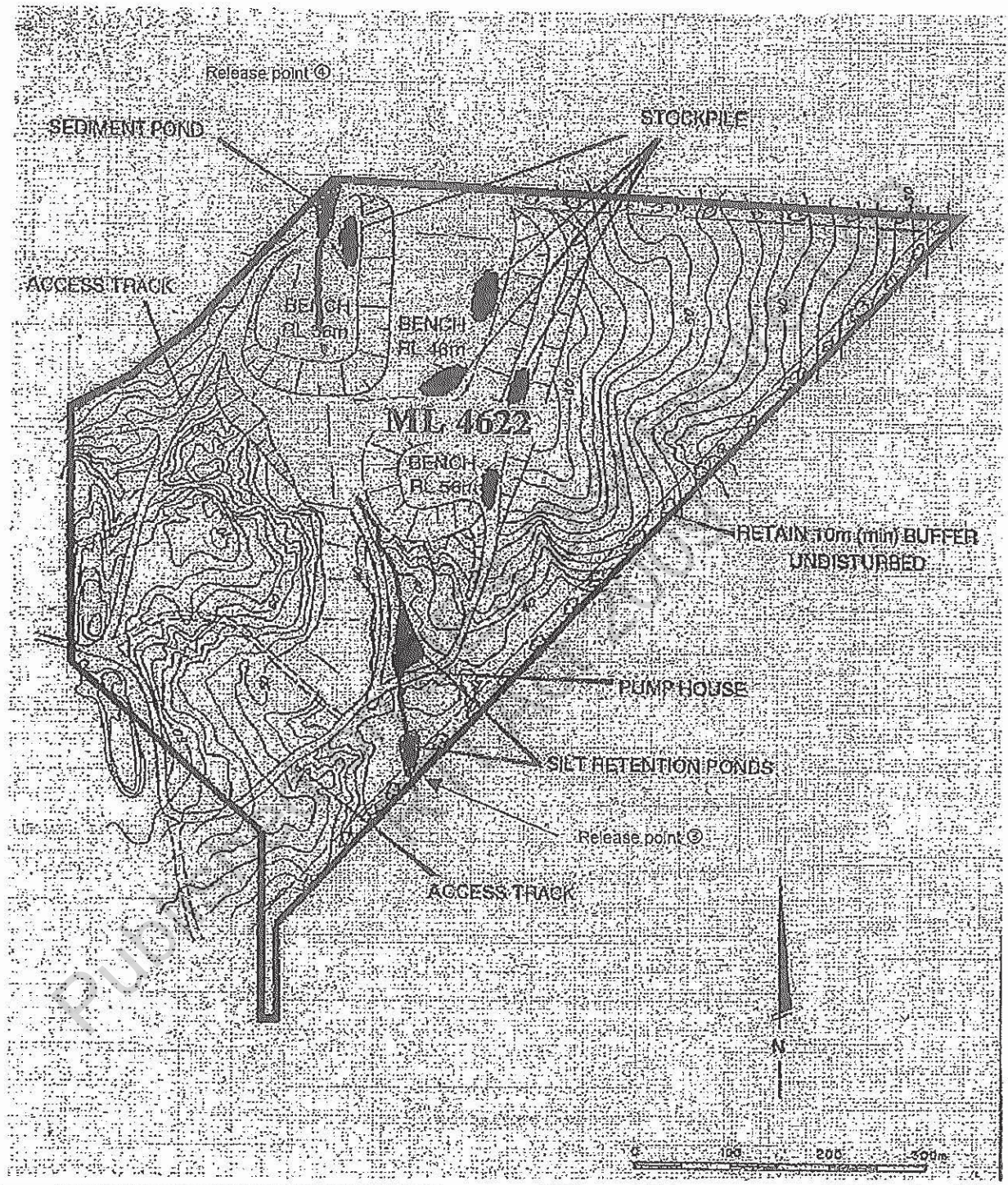
µs/cm means micro semen per centimetre.

waters includes any watercourse, lake, lagoon, pond, swamp, wetland, bed and bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off or groundwater.

END OF CONDITIONS FOR SCHEDULE 1H

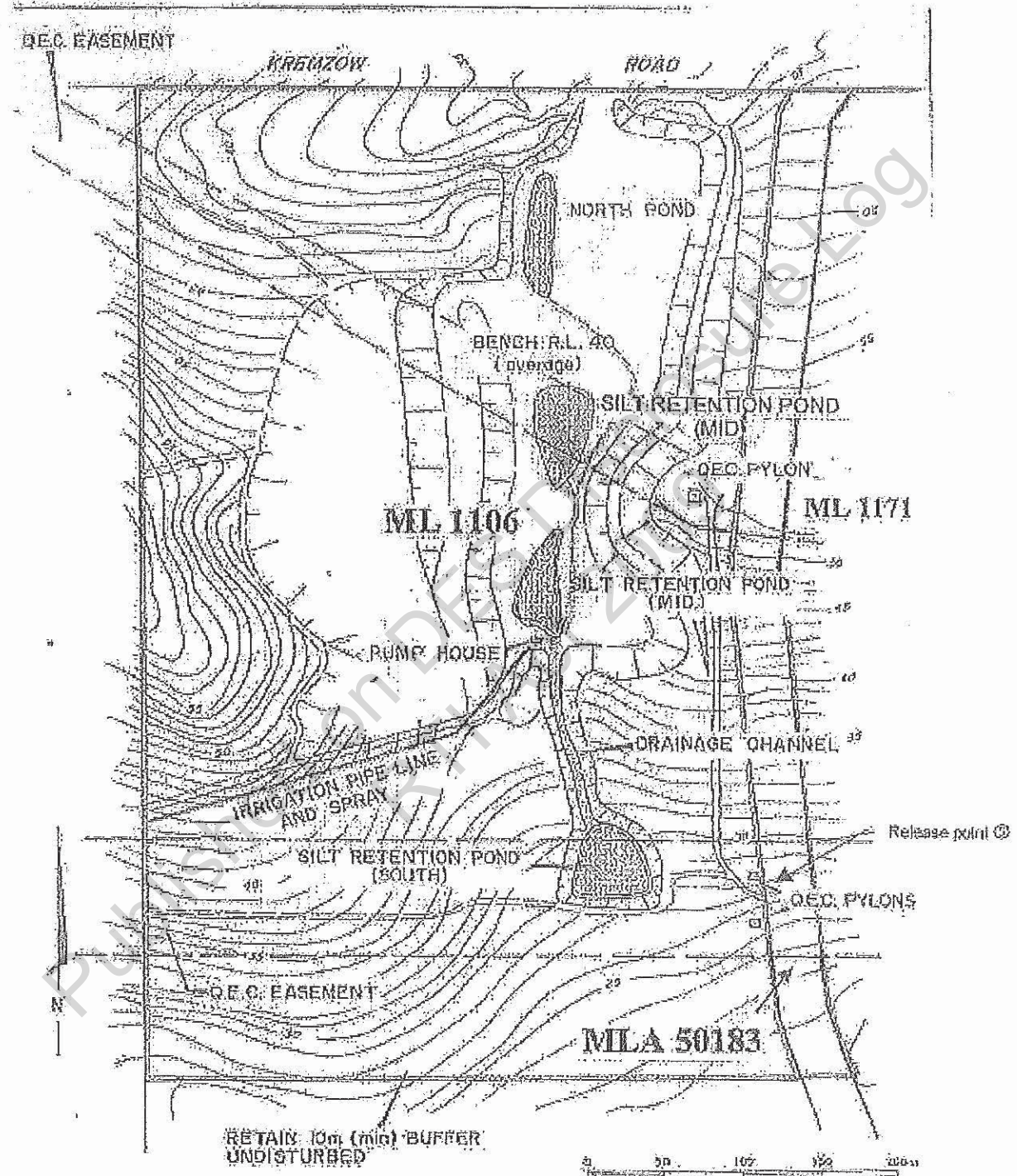
Release

Figure 2 – Redbank Plains



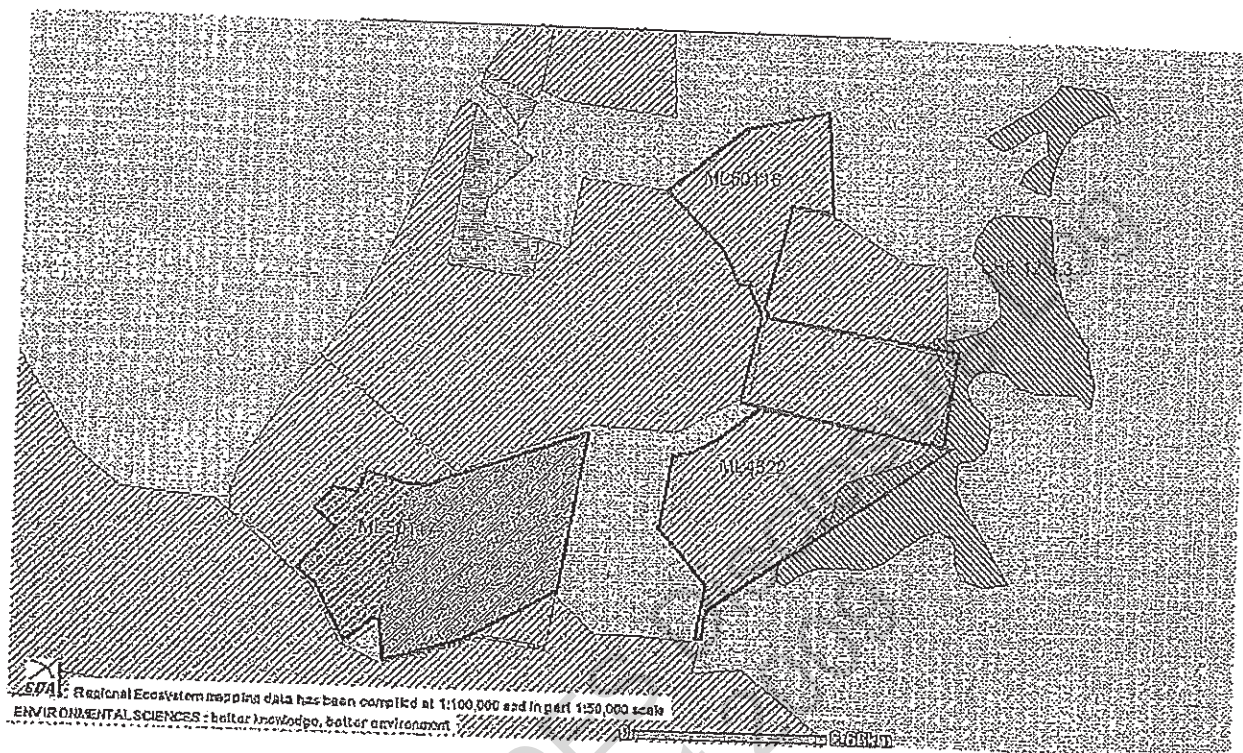
Release

Figure 3 - Strathpine



Release

Figure 4– Endangered Regional Ecosystem 12.3.3



END OF CONDITIONS

Release

Sustainable Planning Act 2009

EHP Permit ¹ number: EPML004299213

This permit is issued by the administering authority to authorise the activity specified in the permit in accordance with the conditions specified in the permit. This decision was made pursuant to Section 207 of the Environmental Protection Act 1994.

Takes Effect From: 28 November 2013

Details

Permit Holder(s)	Name	Address
Principal Holder	Boral Bricks (Qld) Limited	c/-Boral Limited, Level 39, 50 Bridge Street SYDNEY NSW 2000

Activity(s)	Location(s)
Mining activity - schedule 6, item 12 a level 1 mining project, other than a level 1 mining project mentioned in items 1 to 11	ML1106 ML1158 ML1171 ML4583 ML4622 ML50116 ML50117 ML50183

The anniversary date of the environmental authority is 18 DECEMBER.

The environmental authority is subject to the attached conditions of approval.

sch4p4(6) Personal information

Kelly Gleeson
Delegate
Department of Environment and Heritage Protection
12 June 2014

Enquiries:
Permit and Licence Management
Department of Environment and Heritage Protection
GPO Box 2454
Brisbane Queensland 4001
Phone: 1300 130 372
Fax: 07 3330 5875
E-mail: palm@ehp.qld.gov.au

¹ Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation administered by the Department of Environment and Heritage Protection.

CONDITIONS

PART 1 - ENVIRONMENTAL AUTHORITY (MINING LEASE) – (Section 258 *Environmental Protection Act 1994*)

This part is for carrying out an environmental authority (mining activities) for a mining lease under chapter 5, parts 1, 2 and 6 of the Environmental Protection Act 1994.

Schedule A - General conditions

Prevent or minimise likelihood of environmental harm

- (A1-1) In carrying out the ERA the authority holder must take reasonable and practicable measures to prevent or minimise the likelihood of environmental harm being caused. Any ERA that, if carried out incompetently or negligently may cause environmental harm, shall be carried out in a proper manner in accordance with the conditions of this authority.

Note. This authority authorises the ERA. It does not authorise environmental harm unless a condition hereof explicitly authorises that harm. Where there is no such condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

Maintenance of measures, plant and equipment

- (A2-1) The authority holder must:
- (a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this authority;
 - (b) maintain such measures, plant and equipment in a proper and efficient condition; and
 - (c) operate such measures, plant and equipment in a proper and efficient manner.

Monitoring

- (A3-1) Record, compile and keep for a minimum of five years the results of all monitoring required by this authority and make those records available for inspection upon request by the administering authority.
- (A3-2) Where monitoring is required by this authority, ensure that a competent person conducts all monitoring.

Storage and handling of flammable or combustible liquids

- (A4-1) Spillage of any flammable or combustible liquids must be contained on the site and rectified whereby environmental harm other than of a trivial nature is not caused.
- (A4-2) All petroleum product storage must be designed, constructed and maintained in accordance with Australian Standard 1940 - Storage and Handling of Flammable or Combustible Liquids.

Financial assurance

- (A5-1) Provide a financial assurance in the amount and form required by the administering authority prior to the commencement of the ERA.

Release

NOTE: The calculation of financial assurance for condition (A5-1) must be in accordance with EPA Guideline 17 *Financial Assurance for Mining Activities* and may include a performance discount. The financial assurance amount is defined as the maximum total rehabilitation cost for complete rehabilitation of all significantly disturbed areas, which may vary on an annual basis due to progressive rehabilitation. The amount required for the financial assurance must be the highest Total Rehabilitation Cost calculated for any year of the Plan of Operations and calculated using the formula: Financial Assurance = Highest Total Annual Rehabilitation Cost x Percentage Required.

- (A5-2) The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely.

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

Environmentally sensitive areas

- (A6-1) Mining activities must not be carried out in Endangered Regional Ecosystem 12.3.3 as shown on Figure 4 in Schedule I hereof.

END OF CONDITIONS FOR SCHEDULE A

Schedule B – Air

Dust nuisance

- (B1-1) The release of dust or other particulate matter resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B1-2) For the purposes of condition (B1-1), the ERA will not cause environmental nuisance where dust or other particulate matter resulting from the ERA does not exceed the following limits when measured at any sensitive place:
- (a) dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard 3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulates – Deposited matter – Gravimetric method ; or
 - (b) a concentration of suspended particulate matter with an aerodynamic diameter of less than 10 micrometres (µm) (PM10) of 150 micrograms per cubic metre over a 24 hour averaging time at a sensitive place downwind, when monitored in accordance with:
 - (i) Australian Standard AS 3580.9.6 Methods for sampling and analysis of ambient air – Determination of particulate matter – PM (sub) 10 high-volume sampler with size-selective inlet - Gravimetric method; or
 - (ii) any alternative method of monitoring PM10 which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.
- (B1-3) Dust or other particulate monitoring must be undertaken as directed by the administering authority to investigate any complaint of dust nuisance being caused by the ERA, which complaint in the opinion of an authorised person is not frivolous, vexatious nor based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. Monitoring must be carried out at a site relevant to the potentially affected sensitive place and at upwind control site(s) and must include:
- (a) for a complaint alleging dust nuisance, dust deposition; and
 - (b) for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of suspended PM10 over a 24hr averaging time.
- (B1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by dust or other particulate matter from the ERA, the authority holder must:

Release

- (a) address the complaint including the use of appropriate dispute resolution if required; or
- (b) immediately implement abatement measures so that emission of dust or other particulate matter from the ERA does not result in further environmental nuisance.

Odour nuisance

- (B2-1) Subject to condition (B2-2), the release of noxious or offensive odour or any other noxious or offensive airborne contaminant resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B2-2) Odour monitoring must be undertaken as directed by the administering authority to investigate any complaint of odour nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring.
- (B2-3) If an authorised person's opinion based on monitoring results or otherwise indicates that environmental nuisance is being caused by odour from the ERA, the authority holder must:
 - (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement odour abatement measures so that emission of odour from the ERA does not result in further environmental nuisance.

END OF CONDITIONS FOR SCHEDULE B

Schedule C – Water

Management of Stormwater

- (C1-1) Stormwater runoff from the site must be managed in accordance with the following hierarchy:
 - (a) avoidance – eg. prevent the amount of contaminated stormwater generated;
 - (b) reuse – eg. reuse contaminated stormwater;
 - (c) recycle – eg. treat contaminated stormwater for reuse; and
 - (d) disposal – eg. dispose of contaminated stormwater in a way that causes the least environmental harm and in accordance with the conditions of this authority.
- (C1-2) Erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment to any waters outside the site.
- (C1-3) The storage design criteria of any stormwater containment dam must be sufficient to contain the runoff expected from a 1 in 10 year AEP 24 hour rainfall event.

Release to waters

- (C2-1) Stormwater runoff from disturbed areas on the site must only be released to waters outside the site from the release points shown in Schedule I and listed in Schedule C – Table 1. Release of stormwater is permitted from the release points if caused by a rainfall event in excess of, or equal to, a 1 in 10 year AEP 24 hour rainfall event, for a period of no longer than 24 hours after cessation of the rainfall event, or otherwise when water is in compliance with the release limits stated in Schedule C - Table 2.

Schedule C - Table 1 (Release points)

Release

Release point	Easting (AMG)	Northing (AMG)
③ - ML4622	483 500	6943 250
④ - ML4622	483 625	6944 125
⑤ - ML1106	496 000	6978 125

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RTI Act 2009

Release

Schedule C - Table 2 (Release limits)

Parameter	Units	Minimum	Maximum
pH	-	6.5	8.5
Total Suspended Solids	mg/L	-	50
Conductivity	µs/cm	-	1500

- (C2-2) Contaminants must not be released from the site to any waters or to the bed and banks of any waters outside the site except in accordance with condition (C2-1).

END OF CONDITIONS FOR SCHEDULE C

Schedule D - Noise

Noise nuisance

- (D1-1) Subject to conditions (D1-2) and (D1-3), noise from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (D1-2) Noise monitoring must be undertaken as directed by the administering authority to investigate any complaint of noise nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. For the purposes of this condition, noise monitoring must be done in accordance with the latest edition of the administering authority's *Noise Measurement Manual* and include:
- $L_{A, \max \text{ adj}, T}$;
 - relevant background sound level;
 - the level and frequency of occurrence of impulsive or tonal noise;
 - atmospheric conditions including wind speed and direction; and
 - location, date and time of recording.
- (D1-3) For the purposes of condition (D1-1), the ERA will not cause environmental nuisance where noise from the ERA does not exceed the limits specified in Schedule D - Table 1.
- (D1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by noise from the ERA, the authority holder must:
- address the complaint including the use of appropriate dispute resolution if required; or
 - immediately implement noise abatement measures so that emissions of noise from the ERA do not result in further environmental nuisance.

Release

Schedule D - Table 1 (Noise limits) *

Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
	<i>Noise measured at a 'Noise sensitive place'</i>					
$L_{A, \text{max adj, T}}$	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)	Background + 0 dB(A)	Background + 0 dB(A)
	<i>Noise measured at a 'Commercial place'</i>					
$L_{A, \text{max adj, T}}$	Background + 10 dB(A)	Background + 10 dB(A)	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)

Where "T" is 10 minutes and "Background" means background sound pressure level measured in accordance with the latest edition of the administering authority's *Noise Measurement Manual*.

* Schedule D Table 1 does not purport to set operating hours for the ERA.

END OF CONDITIONS FOR SCHEDULE D

Schedule E – Waste

There are no conditions prescribed for this schedule.

END OF CONDITIONS FOR SCHEDULE E

Schedule F – Land

Buffer zones

- (F1-1) There must be no mining activities in the buffer zones shown on Figures 2 and 3 in Schedule I hereof other than for environmental control works (eg. noise bunds), access or provision of services and excepting for abutting mining lease boundaries where the mining leases are held by the holder of this environmental authority.

Rehabilitation landform criteria

- (F2-1) All areas significantly disturbed by mining activities must be rehabilitated in accordance with Schedule F – Table 1.

Release

Rehabilitation outcomes acceptance criteria (Industrial and Residential)

- (F3-1) For the purposes of Schedule F – Table 1, significantly disturbed land nominated for an industrial or residential rehabilitation outcome will be considered rehabilitated when the land is stabilised and does not, or will not, have potential to cause environmental harm.
- (F3-2) Despite condition (F3-1) and pending approval for surrender of this authority, the use of significantly disturbed land and/or mine voids remaining at the end of mine life for an industrial or residential rehabilitation outcome is subject to the operation of relevant legislation (eg. *Integrated Planning Act 1997*).
- (F3-3) Where requisite statutory approval(s) for a final land use and rehabilitation outcome described in Schedule F - Table 1 are not obtained, an alternative rehabilitation outcome must be nominated to the administering authority.

Rehabilitation outcomes acceptance criteria (Rural)

- (F4-1) For the purposes of Schedule F - Table 1, complete an investigation into rehabilitation of significantly disturbed areas nominated for rural rehabilitation outcome and submit a report to the administering authority proposing relevant rehabilitation acceptance criteria by 30 June 2009.
- (F4-2) All relevant areas significantly disturbed by the ERA must be rehabilitated in accordance with the acceptance criteria prescribed in the report required by condition (F4-1) as may be modified by the administering authority. Where no such modification is notified by the administering authority to the authority holder within six months of receipt of the report, then the acceptance criteria prescribed in the report will apply.

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

Tenure ID	Surface Disturbance Area (ha)	Rehabilitation Outcome
ML1158	5.67	Residential
ML1106	21.48	Rural or Residential
ML1171	12.75	Rural or Residential
ML50183	2.05	Rural or Residential
ML4622	38.60	Industrial (landfill)
ML50116	12.95	Industrial (landfill)
ML50117	10.67	Industrial (landfill)
ML4583	0	Industrial (landfill)

Release

Progressive rehabilitation

- (F5-1) The top layer and sub layers of the soil profile must be removed and stockpiled separately and retained for the purpose of rehabilitation of significantly disturbed areas.
- (F5-2) Commence progressive rehabilitation of significantly disturbed areas as soon as practicable or when:

- (a) the economic potential of the mineral resource in an area has been exhausted;
- (b) an area is no longer required for the continuation of the mining activities; and
- (c) an area is of no further beneficial use to the mining operation.

Infrastructure

- (F6-1) All infrastructure for the ERA including water storage structures, must be removed from the site prior to surrender hereof, except where otherwise agreed to in writing by the land owner and Mining Registrar at the relevant time.

NOTE: This condition is not applicable to the landowner also being the environmental authority holder at the relevant time.

END OF CONDITIONS FOR SCHEDULE F

Schedule G – Community

Complaint response

- (G1-1) All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.

END OF CONDITIONS FOR SCHEDULE 1G

Release

Schedule H - Definitions

Definitions

(H1-1) Words and phrases used in this authority are defined in Schedule H – Definitions. Where a definition for a term used in this authority is sought and the term is not defined herein, the definitions in the *Environmental Protection Act 1994*, regulations made under that Act, Environmental Protection Policies as amended from time to time or ordinary meaning must be used.

Interpretation

EMOS means the Environmental Management Overview Strategy report titled "Boral Bricks Pty Ltd Brisbane District Operations Environmental Management Overview Strategy" dated January 2003. Where required, interpretation of this environmental authority should be in the context of the EMOS.

acceptance criteria means the standards by which the actions implemented to rehabilitate land are deemed to be complete. The acceptance criteria relate to 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 collembola, 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; and
- vegetation water use and effects on ground water levels and catchment yields.

AEP means "annual exceedence probability" in relation to a given rainfall event, is the probability that the given event will be exceeded within a one year period. The AEP is usually expressed as "1 in n" (years) or as a percentage. The *given rainfall event* comprises a stated depth of rainfall received during a stated period: for example, 750 mm in one year, or 95 mm in 24 hours. If the 24-hour rainfall event having an AEP of 5% is, say, 120 mm, this means that for each year there will be 5% chance that the 24-hour rainfall will be 120 mm, or greater. Another way of expressing this is to say the Average Recurrence Interval is 20 years (Note that this does not mean only 1 occurrence in every 20 years, or only 5 occurrences per century).

administering authority means the Department of Environment and Heritage Protection or its successor.

annual return means the return required by the annual notice (under section 316 of the *Environmental Protection Act 1994*) for an environmental authority.

approval means development permit or preliminary approval decision notice or referral agency response under the *Sustainable Planning Act 2009*.

authorised place means the place, land or premises authorised under this authority or approval for the carrying out of the specified environmentally relevant activities.

authority means level 1 licence, level 1 approval, level 2 approval or environmental authority (mining activities) under the *Environmental Protection Act 1994*.

Release

commercial place means a place used as an office or for business or commercial purposes other than such a place on the land the subject of this environmental authority.

competent person means a person with sufficient demonstrated skill, knowledge and qualifications required to carry out a task to a necessary standard for protection of the environment.

dam means a containment whether permanent or temporary, which is designed to contain, divert or control flowing substances. The term does not include a fabricated or manufactured tank or container designed to a recognised standard.

disturbed areas or words to that effect means areas that comprise the active mine area, the process plant and the tailings area.

dwelling means any of the following structures or vehicles that is principally used as a place for human habitation-

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land; and
- a water craft in a marina.

authority holder means the person to whom an environmental authority is issued or transferred to, or a person acting under an environmental authority.

environmental harm has the meaning given in the *Environmental Protection Act 1994*.

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.

intrusive noise means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration -

- is clearly audible to, or can be felt by, an individual; and
- annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, reference should be made to Australian Standard 1055.2 - 1997 Acoustics - Description and Measurement of Environmental Noise Part 2 - Application to Specific Situations.

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 tonal character and impulsiveness of the sound) and measured over any 10 minute period, using Fast response.

land includes waters and the atmosphere.

mg/L means milligrams per litre.

noise sensitive place means -

- a dwelling, mobile home or caravan park, residential marina or other residential premises;
- a motel, hotel or hostel;
- a kindergarten, school, university or other educational institution;
- a medical centre or hospital;
- a protected area; and

- a park or gardens;
and includes the curtilage of any such place.

noxious means harmful or injurious to health or physical well being.

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

progressive rehabilitation means rehabilitation (defined below) undertaken progressively or in stages as mining activities or operations are ongoing.

protected area means -

- a protected area under the *Nature Conservation Act 1992*;
- a marine park under the *Marine Parks Act 2004*; and
- a World Heritage Area.

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

rehabilitation means the process of reshaping and revegetating land to restore it to a stable post mining state and in accordance with the acceptance criteria, 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 to different phases of mining activities.

sensitive place means;

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises excluding accommodation for persons engaged in the mining activities;
- a motel, hotel or hostel;
- an educational institution;
- a medical centre or hospital;
- a public park or gardens (including a protected area); and
- a commercial place;

and includes the curtilage of any such place.

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.

significantly disturbed or words to that effect means -

(a) contaminated land; or

(b) land that has been disturbed and human intervention is needed to rehabilitate it;

(i) including:

- 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 waters where mining project activities occur;
 - areas submerged by tailings or hazardous contaminant storage dams in all cases;
 - areas under temporary infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be removed after mining has ceased;
- or

(ii) not including

- areas off mining lease (e.g. roads or tracks which provide access to the mining lease);

Release

- areas previously significantly disturbed which have achieved the rehabilitation outcomes;
- by agreement with the administering authority, areas previously significantly disturbed which have not achieved the rehabilitation objectives due to circumstances beyond the control of the authority holder (such as climatic conditions);
- areas under permanent infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be lawfully left on the site post authority surrender.
- disturbances that pre-existed the grant of the mining tenure unless those areas are disturbed during the term of the tenure.

site means the place or premises to which this authority or approval relates.

stable means geotechnical stability of a rehabilitated landform where instability caused by settlement and subsidence has ceased.

µs/cm means micro semen per centimetre.

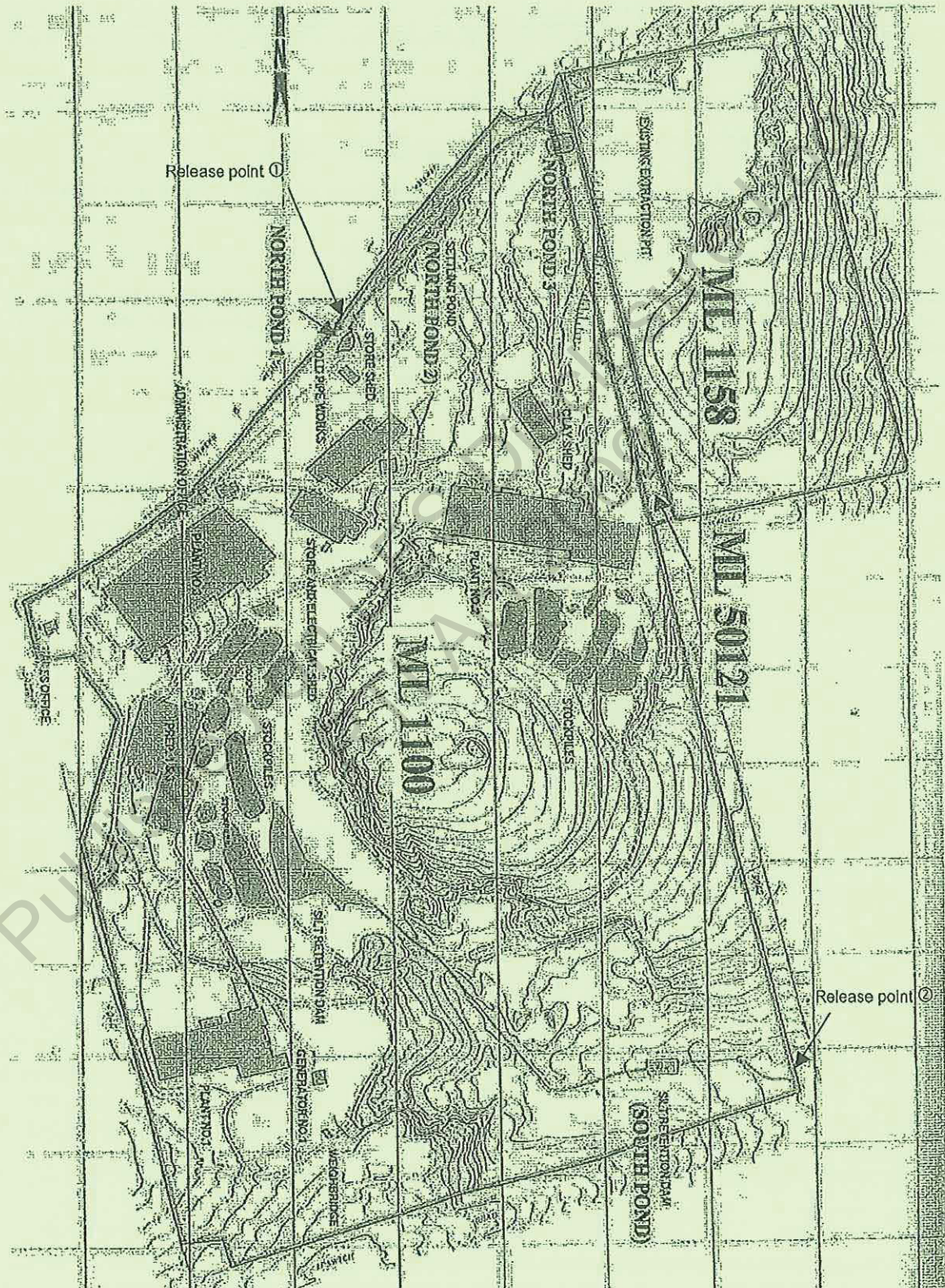
waters includes any watercourse, lake, lagoon, pond, swamp, wetland, bed and bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off or groundwater.

END OF CONDITIONS FOR SCHEDULE 1H

Release

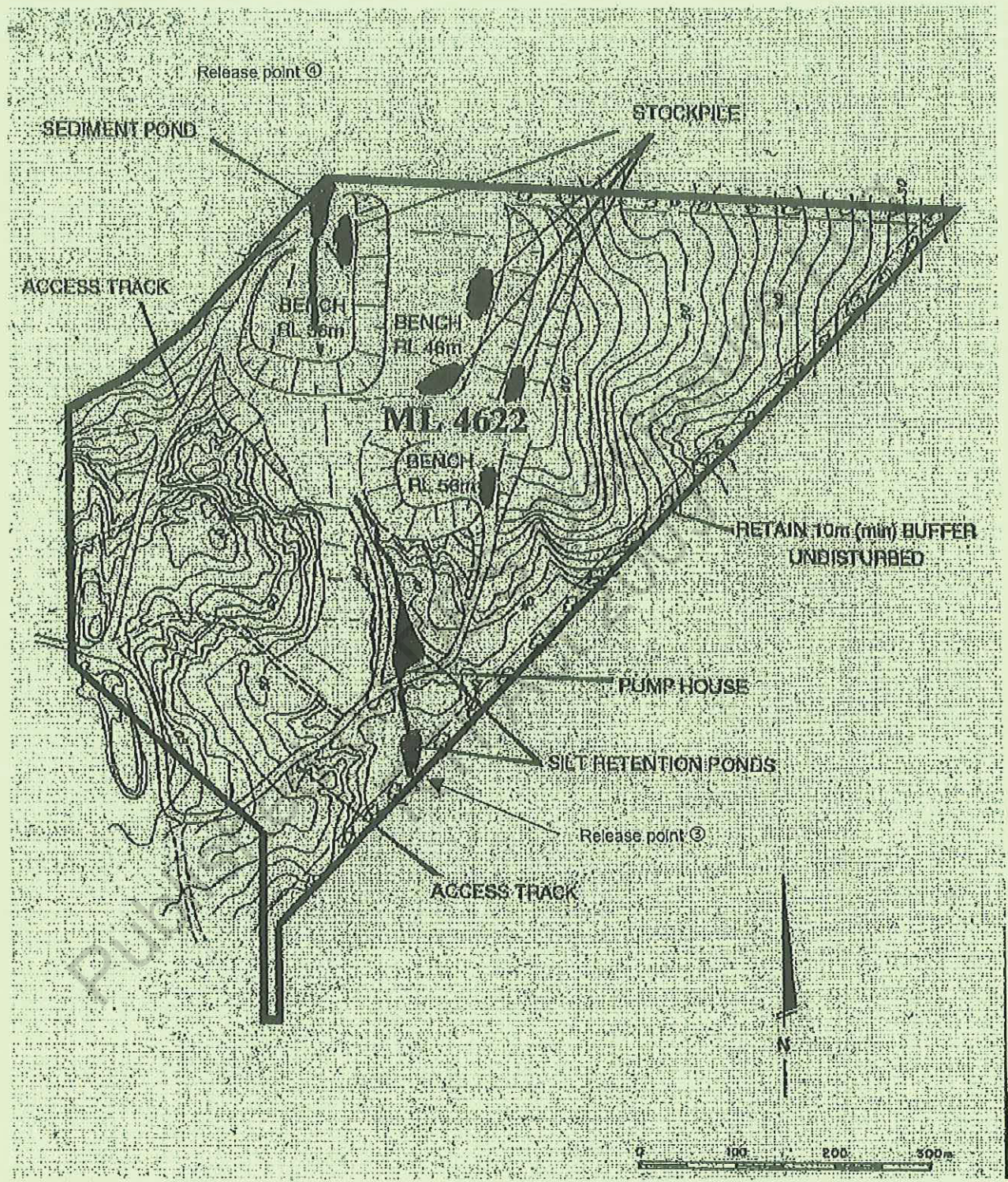
Schedule I – Maps / Plans

Figure 1 - Darra



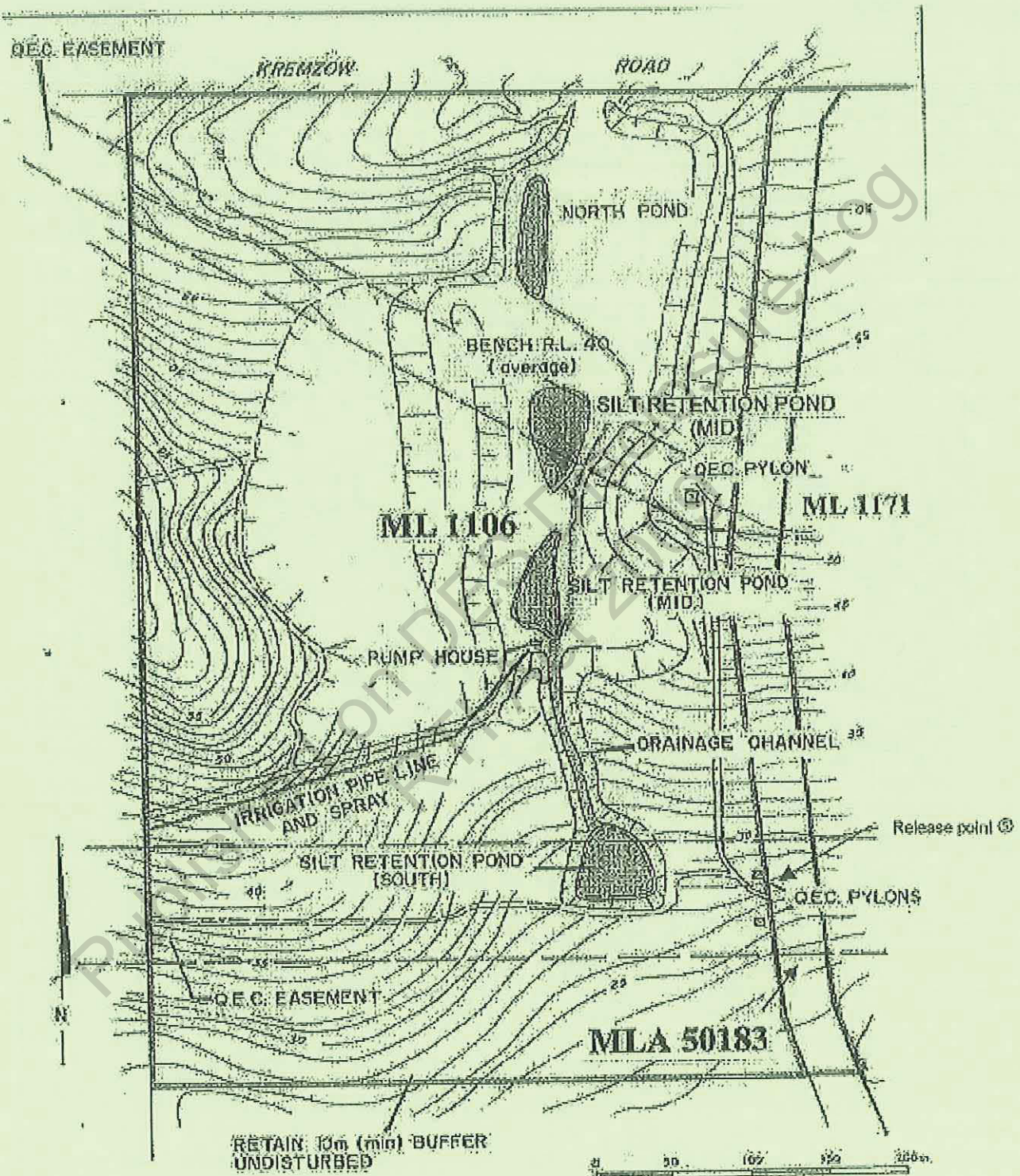
Release

Figure 2 – Redbank Plains



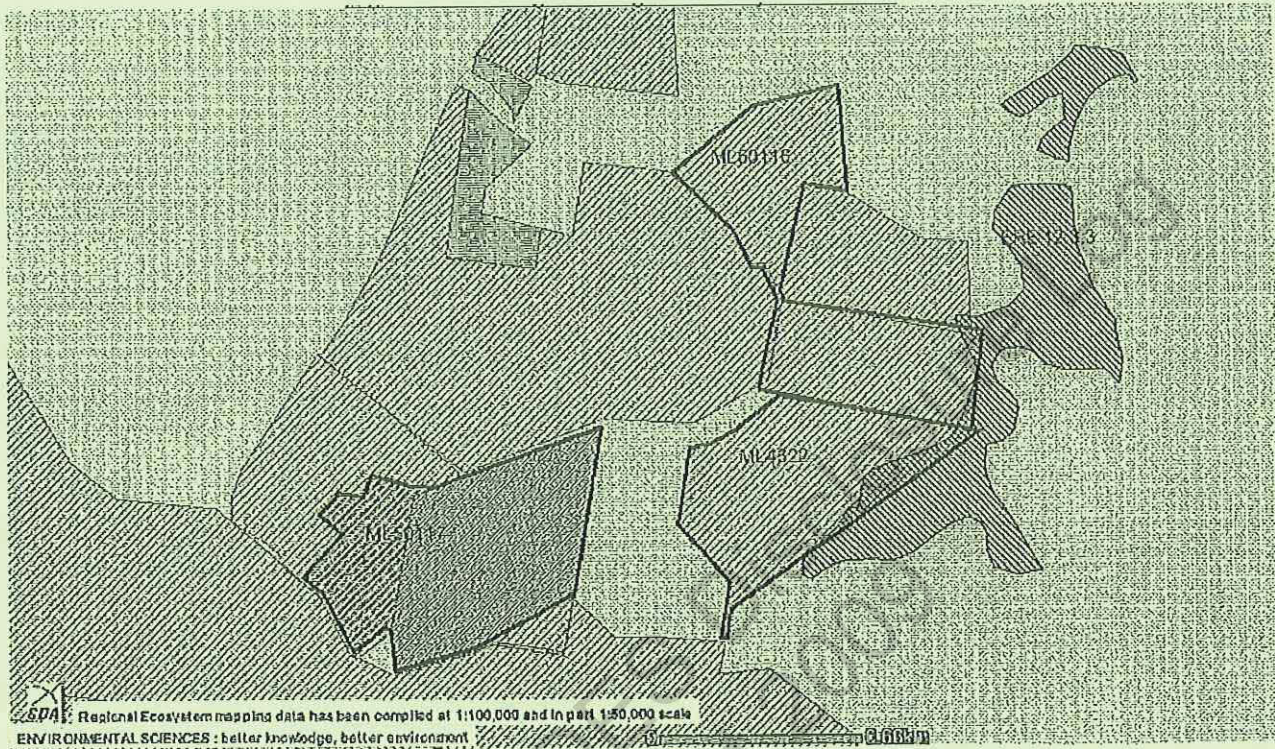
Release

Figure 3 - Strathpine



sch4p4(6

Figure 4– Endangered Regional Ecosystem 12.3.3



END OF CONDITIONS

Release

Notice

Notice of Decision – Partial Surrender Application

This notice is issued by the Department of Environment and Heritage Protection to advise of a statutory decision made under section 277 of the Environmental Protection Act 1994.

Boral Bricks Pty Ltd
 C/- Mining Tenement Services
 Attn: sch4p4(6) Personal inform
 GPO Box 215
 Brisbane, QLD 4001

11 JUL 2014

Our reference: EPML004299213

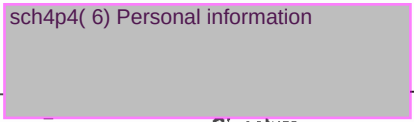
Re: Application for Partial surrender of environmental authority

The Department of Environment and Heritage Protection (the department) has assessed the application received on 13 May 2014 to surrender part of environmental authority EPML004299213 and wishes to advise you that the application has been Granted. The following part of environmental authority EPML004299213 applies to this decision:

Activity(s)	Authorised Mining Tenement	Location(s)
Mining Lease – Section 18(a) of the <i>Environmental Protection Act 1994</i> : Mining Activities Schedule 6 of the <i>Environmental Protection Regulation 2008</i> . Item 12 a level 1 mining project, other than a level 1 mining project mentioned in items 1 to 11.	ML1100	Lot 1 on SP261547 Lot 2 on SP261547

If you require more information please contact Andrew Fielding, the Project Manager, on (07) 33305586.

Yours Sincerely

sch4p4(6) Personal information

Signature

12/6/2014
Date

Delegate

Kelly Gleeson
Department of Environment and Heritage Protection
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:

Andrew Fielding
Department of Environment and Heritage Protection
GPO Box 2454 Brisbane, QLD 4001
Phone: (07) 33305586
Fax: (07) 33305754
Email: Andrew.Fielding@ehp.qld.gov.au

Attachment(s)

Permit EPML004299213

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: EPML00499213

Environmental authority takes effect on 15-OCT-2014.

The anniversary date of this environmental authority remains 19th 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
Boral Resources (Qld) Pty. Limited T/A Boral Bricks (QLD) Limited	Level 39, AMP Centre 50 Bridge Street SYDNEY NSW 2000

Environmentally relevant activity and location details

Environmentally relevant activity(ies)	Location(s)
Mining - ML Claypit, dimension stone or gemstones - 20(b)	ML1106 ML1158 ML1171 ML4583 ML4622 ML50116 ML50117 ML50183

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.

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

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.

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)

sch4p4(6) Personal informati

Signature

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

15/10/2014

Date

Enquiries:
Christine Hall
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@derm.qld.gov.au

Conditions of environmental authority

Location: ML1106, ML1158, ML1171, ML4583, ML4622, ML50116, ML50117, ML50183

Relevant activity: Mining - ML Claypit, dimension stone or gemstones - 20(b)

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

**PART 1 - ENVIRONMENTAL AUTHORITY (MINING LEASE) – (Section 258
Environmental Protection Act 1994)**

This part is for carrying out an environmental authority (mining activities) for a mining lease under chapter 5, parts 1, 2 and 6 of the Environmental Protection Act 1994.

Schedule A - General conditions

Prevent or minimise likelihood of environmental harm

(A1-1) In carrying out the ERA the authority holder must take reasonable and practicable measures to prevent or minimise the likelihood of environmental harm being caused. Any ERA that, if carried out incompetently or negligently may cause environmental harm, shall be carried out in a proper manner in accordance with the conditions of this authority.

Note. This authority authorises the ERA. It does not authorise environmental harm unless a condition hereof explicitly authorises that harm. Where there is no such condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

Maintenance of measures, plant and equipment

(A2-1) The authority holder must:

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

Monitoring

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

(A3-2) Where monitoring is required by this authority, ensure that a competent person conducts all monitoring.

Storage and handling of flammable or combustible liquids

(A4-1) Spillage of any flammable or combustible liquids must be contained on the site and rectified whereby environmental harm other than of a trivial nature is not caused.

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

Financial assurance

(A5-1) Provide a financial assurance in the amount and form required by the administering authority prior to the commencement of the ERA.

NOTE: The calculation of financial assurance for condition (A5-1) must be in accordance with EPA Guideline 17 *Financial Assurance for Mining Activities* and may include a performance discount. The financial assurance amount is defined as the maximum total rehabilitation cost for complete rehabilitation of all significantly disturbed areas, which may vary on an annual basis due to progressive rehabilitation. The amount required for the financial assurance must be the highest Total Rehabilitation Cost calculated for any year of the Plan of Operations and calculated using the formula: Financial Assurance = Highest Total Annual Rehabilitation Cost x Percentage Required.

- (A5-2) The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely.

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

Environmentally sensitive areas

- (A6-1) Mining activities must not be carried out in Endangered Regional Ecosystem 12.3.3 as shown on Figure 4 in Schedule I hereof.

END OF CONDITIONS FOR SCHEDULE A

Schedule B – Air

Dust nuisance

- (B1-1) The release of dust or other particulate matter resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B1-2) For the purposes of condition (B1-1), the ERA will not cause environmental nuisance where dust or other particulate matter resulting from the ERA does not exceed the following limits when measured at any sensitive place:
- (a) dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard 3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulates – Deposited matter – Gravimetric method ; or
 - (b) a concentration of suspended particulate matter with an aerodynamic diameter of less than 10 micrometres (µm) (PM10) of 150 micrograms per cubic metre over a 24 hour averaging time at a sensitive place downwind, when monitored in accordance with:
 - (i) Australian Standard AS 3580.9.6 Methods for sampling and analysis of ambient air – Determination of particulate matter – PM (sub) 10 high-volume sampler with size-selective inlet - Gravimetric method; or
 - (ii) any alternative method of monitoring PM10 which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.
- (B1-3) Dust or other particulate monitoring must be undertaken as directed by the administering authority to investigate any complaint of dust nuisance being caused by the ERA, which complaint in the opinion of an authorised person is not frivolous, vexatious nor based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. Monitoring must be carried out at a site relevant to the potentially affected sensitive place and at upwind control site(s) and must include:
- (a) for a complaint alleging dust nuisance, dust deposition; and
 - (b) for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of suspended PM10 over a 24hr averaging time.
- (B1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by dust or other particulate matter from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement abatement measures so that emission of dust or other particulate matter from the ERA does not result in further environmental nuisance.

Odour nuisance

- (B2-1) Subject to condition (B2-2), the release of noxious or offensive odour or any other noxious or offensive airborne contaminant resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B2-2) Odour monitoring must be undertaken as directed by the administering authority to investigate any complaint of odour nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring.
- (B2-3) If an authorised person's opinion based on monitoring results or otherwise indicates that environmental nuisance is being caused by odour from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement odour abatement measures so that emission of odour from the ERA does not result in further environmental nuisance.

END OF CONDITIONS FOR SCHEDULE B

Schedule C – Water

Management of Stormwater

- (C1-1) Stormwater runoff from the site must be managed in accordance with the following hierarchy:
- (a) avoidance – eg. prevent the amount of contaminated stormwater generated;
 - (b) reuse – eg. reuse contaminated stormwater;
 - (c) recycle – eg. treat contaminated stormwater for reuse; and
 - (d) disposal – eg. dispose of contaminated stormwater in a way that causes the least environmental harm and in accordance with the conditions of this authority.
- (C1-2) Erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment to any waters outside the site.
- (C1-3) The storage design criteria of any stormwater containment dam must be sufficient to contain the runoff expected from a 1 in 10 year AEP 24 hour rainfall event.

Release to waters

- (C2-1) Stormwater runoff from disturbed areas on the site must only be released to waters outside the site from the release points shown in Schedule I and listed in Schedule C – Table 1. Release of stormwater is permitted from the release points if caused by a rainfall event in excess of, or equal to, a 1 in 10 year AEP 24 hour rainfall event, for a period of no longer than 24 hours after cessation of the rainfall event, or otherwise when water is in compliance with the release limits stated in Schedule C - Table 2.

Schedule C - Table 1 (Release points)

Release point	Easting (AMG)	Northing (AMG)
① - ML 1100	496 125	6951 125
② - ML1100	496 500	6950 250
③ - ML4622	483 500	6943 250
④ - ML4622	483 625	6944 125
⑤ - ML1106	496 000	6978 125

Schedule C - Table 2 (Release limits)

Parameter	Units	Minimum	Maximum
pH	-	6.5	8.5
Total Suspended Solids	mg/L	-	50
Conductivity	µs/cm	-	1500

- (C2-2) Contaminants must not be released from the site to any waters or to the bed and banks of any waters outside the site except in accordance with condition (C2-1).

END OF CONDITIONS FOR SCHEDULE C

Schedule D - Noise

Noise nuisance

- (D1-1) Subject to conditions (D1-2) and (D1-3), noise from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (D1-2) Noise monitoring must be undertaken as directed by the administering authority to investigate any complaint of noise nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. For the purposes of this condition, noise monitoring must be done in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual* and include:
- (a) $L_{A, \max \text{ adj, T}}$;
 - (b) relevant background sound level;
 - (c) the level and frequency of occurrence of impulsive or tonal noise;
 - (d) atmospheric conditions including wind speed and direction; and
 - (e) location, date and time of recording.
- (D1-3) For the purposes of condition (D1-1), the ERA will not cause environmental nuisance where noise from the ERA does not exceed the limits specified in Schedule D - Table 1.
- (D1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by noise from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement noise abatement measures so that emissions of noise from the ERA do not result in further environmental nuisance.

Schedule D - Table 1 (Noise limits) *

Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
	<i>Noise measured at a 'Noise sensitive place'</i>					
L _A , max adj, T	Background + 5 dB(A)	Background + 5 dB(A)	Background +3 dB(A)	Background +3 dB(A)	Background +0 dB(A)	Background + 0 dB(A)
	<i>Noise measured at a 'Commercial place'</i>					
L _A , max adj, T	Background + 10 dB(A)	Background + 10 dB(A)	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)

Where "T" is 10 minutes and "Background" means background sound pressure level measured in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual*.

* Schedule D Table 1 does not purport to set operating hours for the ERA.

END OF CONDITIONS FOR SCHEDULE D

Schedule E – Waste

There are no conditions prescribed for this schedule.

END OF CONDITIONS FOR SCHEDULE E

Schedule F – Land

Buffer zones

- (F1-1) There must be no mining activities in the buffer zones shown on Figures 2 and 3 in Schedule I hereof other than for environmental control works (eg. noise bunds), access or provision of services and excepting for abutting mining lease boundaries where the mining leases are held by the holder of this environmental authority.

Rehabilitation landform criteria

- (F2-1) All areas significantly disturbed by mining activities must be rehabilitated in accordance with Schedule F – Table 1.

Rehabilitation outcomes acceptance criteria (Industrial and Residential)

- (F3-1) For the purposes of Schedule F – Table 1, significantly disturbed land nominated for an industrial or residential rehabilitation outcome will be considered rehabilitated when the land is stabilised and does not, or will not, have potential to cause environmental harm.
- (F3-2) Despite condition (F3-1) and pending approval for surrender of this authority, the use of significantly disturbed land and/or mine voids remaining at the end of mine life for an industrial or residential rehabilitation outcome is subject to the operation of relevant legislation (eg. *Integrated Planning Act 1997*).
- (F3-3) Where requisite statutory approval(s) for a final land use and rehabilitation outcome described in Schedule F - Table 1 are not obtained, an alternative rehabilitation outcome must be nominated to the administering authority.

Rehabilitation outcomes acceptance criteria (Rural)

- (F4-1) For the purposes of Schedule F - Table 1, complete an investigation into rehabilitation of significantly disturbed areas nominated for rural rehabilitation outcome and submit a report to the administering authority proposing relevant rehabilitation acceptance criteria by 30 June 2009.
- (F4-2) All relevant areas significantly disturbed by the ERA must be rehabilitated in accordance with the acceptance criteria prescribed in the report required by condition (F4-1) as may be modified by the administering authority. Where no such modification is notified by the administering authority to the authority holder within six months of receipt of the report, then the acceptance criteria prescribed in the report will apply.

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

Tenure ID	Surface Disturbance Area (ha)	Rehabilitation Outcome
ML1100	48.35	Residential
ML1158	5.67	Residential
ML50121	0.95	Residential
ML1106	21.48	Rural or Residential
ML1171	12.75	Rural or Residential
ML50183	2.05	Rural or Residential
ML4622	38.60	Industrial (landfill)
ML50116	12.95	Industrial (landfill)
ML50117	10.67	Industrial (landfill)
ML4583	0	Industrial (landfill)

Progressive rehabilitation

- (F5-1) The top layer and sub layers of the soil profile must be removed and stockpiled separately and retained for the purpose of rehabilitation of significantly disturbed areas.
- (F5-2) Commence progressive rehabilitation of significantly disturbed areas as soon as practicable or when:
- (a) the economic potential of the mineral resource in an area has been exhausted;
 - (b) an area is no longer required for the continuation of the mining activities; and
 - (c) an area is of no further beneficial use to the mining operation.

Infrastructure

- (F6-1) All infrastructure for the ERA including water storage structures, must be removed from the site prior to surrender hereof, except where otherwise agreed to in writing by the land owner and Mining Registrar at the relevant time.

NOTE: This condition is not applicable to the landowner also being the environmental authority holder at the relevant time.

END OF CONDITIONS FOR SCHEDULE F

Schedule G – Community

Complaint response

- (G1-1) All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.

END OF CONDITIONS FOR SCHEDULE 1G

Schedule H - Definitions

Definitions

(H1-1) Words and phrases used in this authority are defined in Schedule H – Definitions. Where a definition for a term used in this authority is sought and the term is not defined herein, the definitions in the Environmental Protection Act 1994, regulations made under that Act, Environmental Protection Policies as amended from time to time or ordinary meaning must be used.

Interpretation

"EMOS" means the Environmental Management Overview Strategy report titled "Boral Bricks Pty Ltd Brisbane District Operations Environmental Management Overview Strategy" dated January 2003. Where required, interpretation of this environmental authority should be in the context of the EMOS.

"acceptance criteria" means the standards by which the actions implemented to rehabilitate land are deemed to be complete. The acceptance criteria relate to 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 collembola, 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; and
- vegetation water use and effects on ground water levels and catchment yields.

"AEP" means "annual exceedence probability" in relation to a given rainfall event, is the probability that the given event will be exceeded within a one year period. The AEP is usually expressed as "1 in n" (years) or as a percentage. The *given rainfall event* comprises a stated depth of rainfall received during a stated period: for example, 750 mm in one year, or 95 mm in 24 hours. If the 24-hour rainfall event having an AEP of 5% is, say, 120 mm, this means that for each year there will be 5% chance that the 24-hour rainfall will be 120 mm, or greater. Another way of expressing this is to say the Average Recurrence Interval is 20 years (Note that this does not mean only 1 occurrence in every 20 years, or only 5 occurrences per century).

"administering authority" means the Environmental Protection Agency or its successor.

"annual return" means the return required by the annual notice (under section 316 of the Environment Protection Act, 1994) for an environmental authority.

"approval" means development permit or preliminary approval decision notice or referral agency response under the Integrated Planning Act 1997.

"authorised place" means the place, land or premises authorised under this authority or approval for the carrying out of the specified environmentally relevant activities.

"authority" means level 1 licence, level 1 approval, level 2 approval or environmental authority (mining activities) under the Environmental Protection Act 1994.

"commercial place" means a place used as an office or for business or commercial purposes other than such a place on the land the subject of this environmental authority.

"competent person" means a person with sufficient demonstrated skill, knowledge and qualifications required to carry out a task to a necessary standard for protection of the environment.

“dam” means a containment whether permanent or temporary, which is designed to contain, divert or control flowing substances. The term does not include a fabricated or manufactured tank or container designed to a recognised standard.

“disturbed areas” or words to that effect means areas that comprise the active mine area, the process plant and the tailings area.

“dwelling” means any of the following structures or vehicles that is principally used as a place for human habitation-

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land; and
- a water craft in a marina.

“authority holder” means the person to whom an environmental authority is issued or transferred to, or a person acting under an environmental authority.

“environmental harm” has the meaning given in the *Environmental Protection Act 1994*.

“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.

“intrusive noise” means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration -

- is clearly audible to, or can be felt by, an individual; and
- annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, reference should be made to Australian Standard 1055.2 - 1997 Acoustics - Description and Measurement of Environmental Noise Part 2 - Application to Specific Situations.

“ $L_{A\ 10, \text{adj}, 10 \text{ mins}}$ ” 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.

“ $L_{A\ 1, \text{adj}, 10 \text{ mins}}$ ” 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.

“ $L_{A, \text{max adj}, T}$ ” means the average maximum A-weighted sound pressure level (adjusted for tonal character and impulsiveness of the sound) and measured over any 10 minute period, using Fast response.

“land” includes waters and the atmosphere.

“mg/L” means milligrams per litre.

“noise sensitive place” means -

- a dwelling, mobile home or caravan park, residential marina or other residential premises;
 - a motel, hotel or hostel;
 - a kindergarten, school, university or other educational institution;
 - a medical centre or hospital;
 - a protected area; and
 - a park or gardens;
- and includes the curtilage of any such place.

“noxious” means harmful or injurious to health or physical well being.

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

“progressive rehabilitation” means rehabilitation (defined below) undertaken progressively or in stages as mining activities or operations are ongoing.

“protected area” means -

- a protected area under the Nature Conservation Act 1992;
- a marine park under the Marine Parks Act 2004; and
- a World Heritage Area.

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

“rehabilitation” means the process of reshaping and revegetating land to restore it to a stable post mining state and in accordance with the acceptance criteria, 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 to different phases of mining activities.

“sensitive place” means;

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises excluding accommodation for persons engaged in the mining activities;
- a motel, hotel or hostel;
- an educational institution;
- a medical centre or hospital;
- a public park or gardens (including a protected area); and
- a commercial place;

and includes the curtilage of any such place.

“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.

“significantly disturbed” or words to that effect means -

- (a) contaminated land; or
- (b) land that has been disturbed and human intervention is needed to rehabilitate it;
 - (i) including:
 - 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 waters where mining project activities occur;
 - areas submerged by tailings or hazardous contaminant storage dams in all cases;
 - areas under temporary infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be removed after mining has ceased;
 - or
 - (ii) not including
 - areas off mining 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 administering authority, areas previously significantly disturbed which have not achieved the rehabilitation objectives due to circumstances beyond the control of the authority holder (such as climatic conditions);
 - areas under permanent infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be lawfully left on the site post authority surrender.
 - disturbances that pre-existed the grant of the mining tenure unless those areas are disturbed during the term of the tenure.

“site” means the place or premises to which this authority or approval relates.

“stable” means geotechnical stability of a rehabilitated landform where instability caused by settlement and subsidence has ceased.

"**µs/cm**" means micro semen per centimetre.

"**waters**" includes any watercourse, lake, lagoon, pond, swamp, wetland, bed and bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off or groundwater.

END OF CONDITIONS FOR SCHEDULE 1H

Published on DES Disclosure Log
RTI Act 2009

Schedule I – Maps / Plans

Figure 1 - Darra

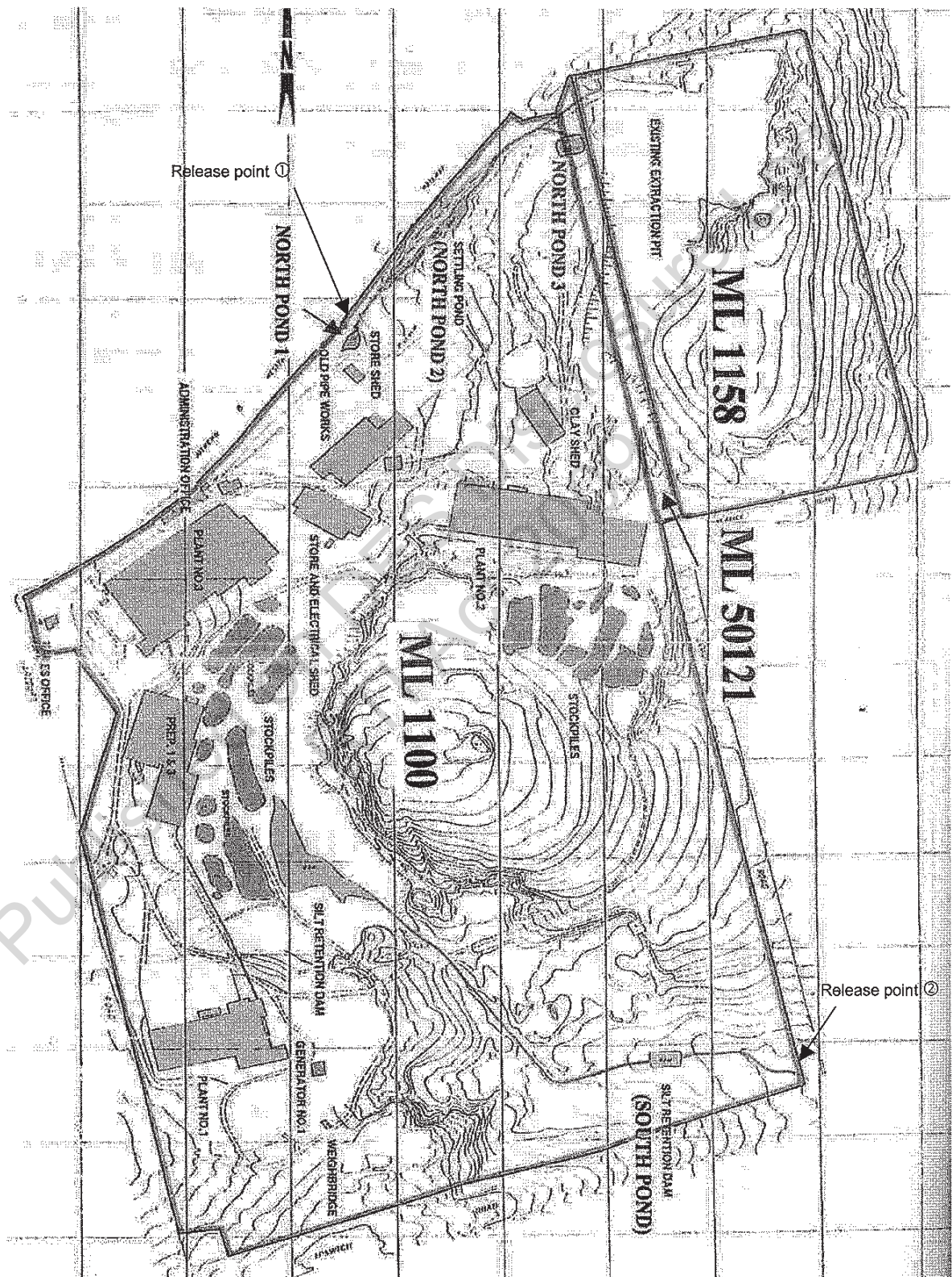


Figure 2 – Redbank Plains

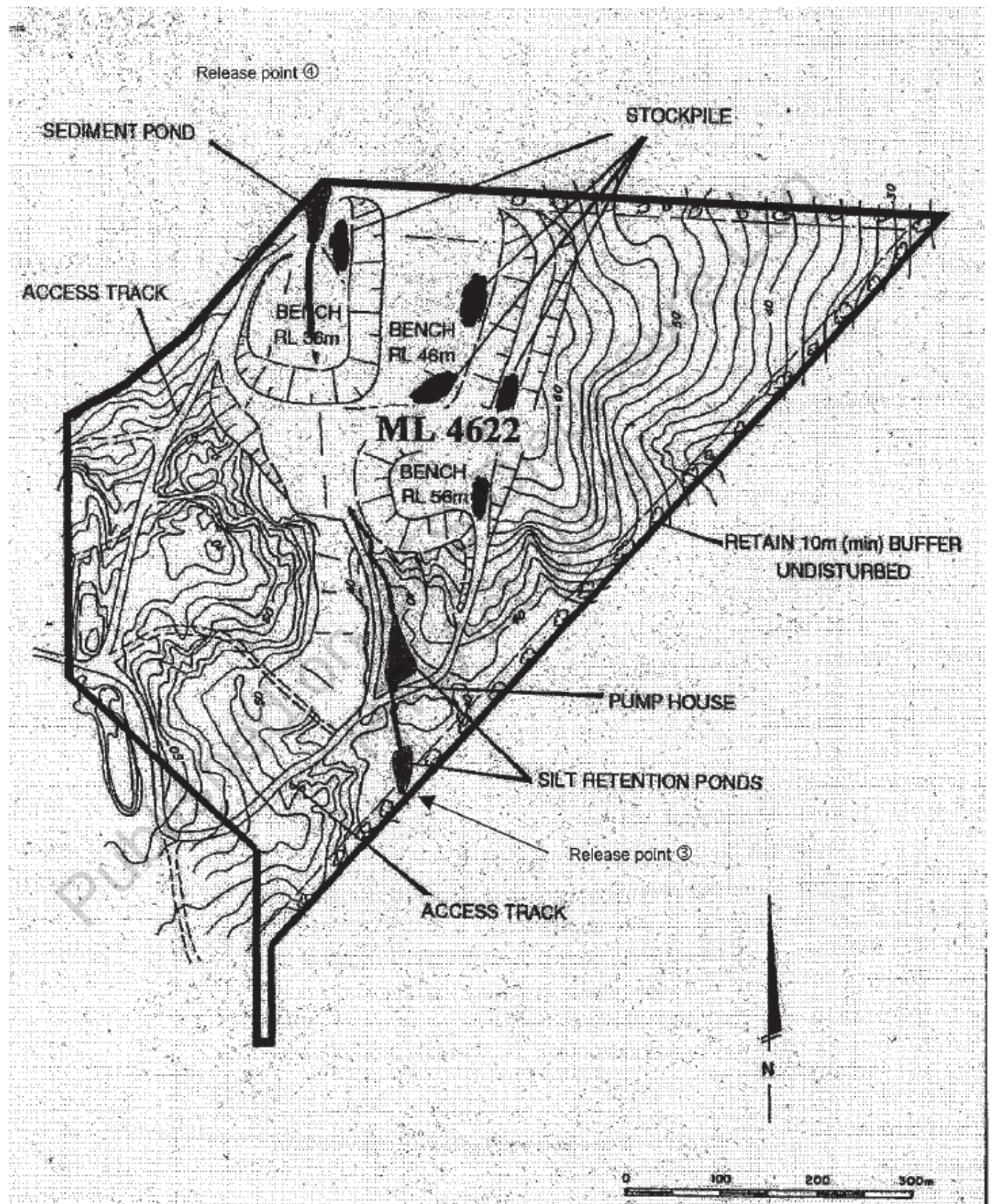


Figure 3 - Strathpine

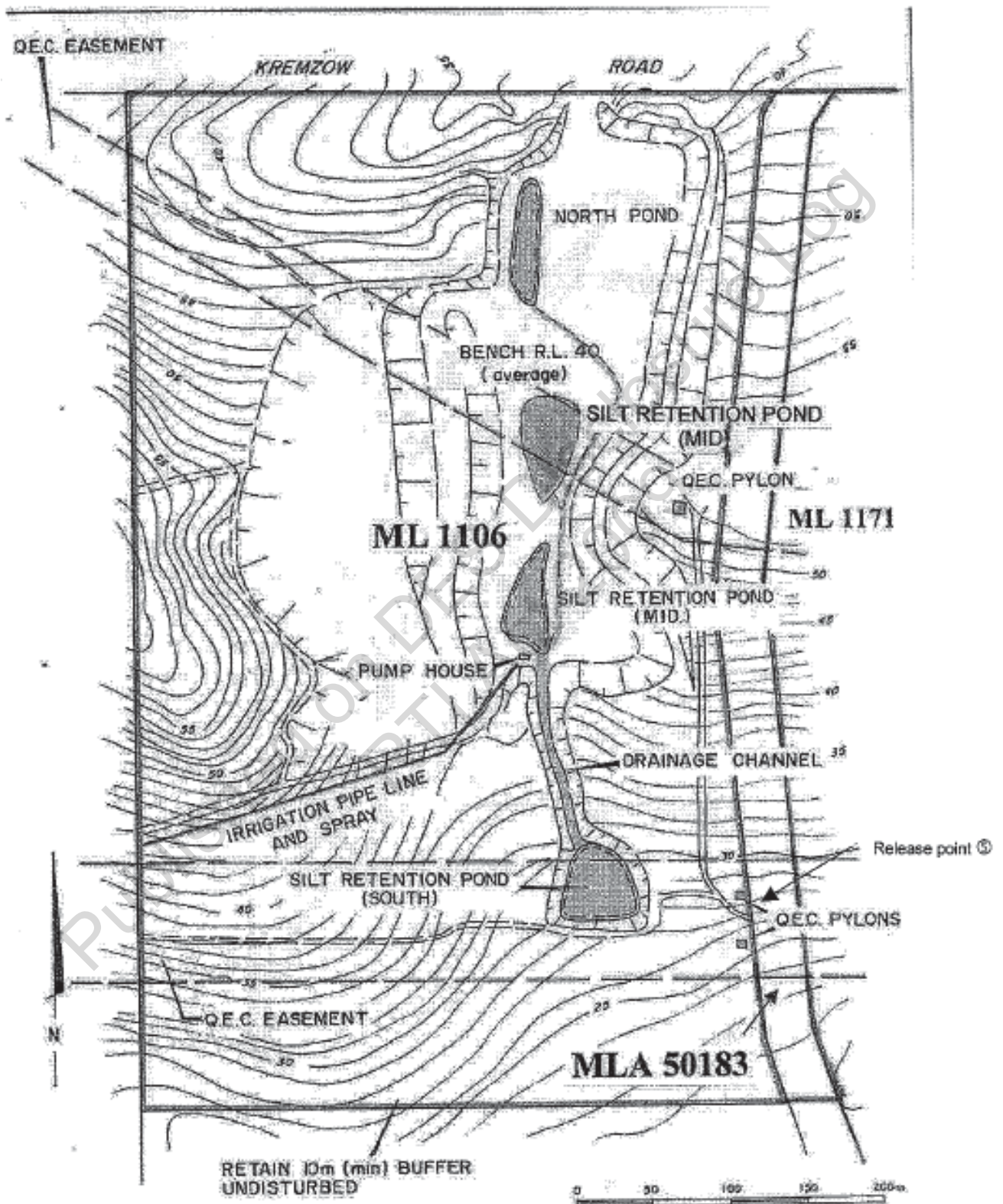
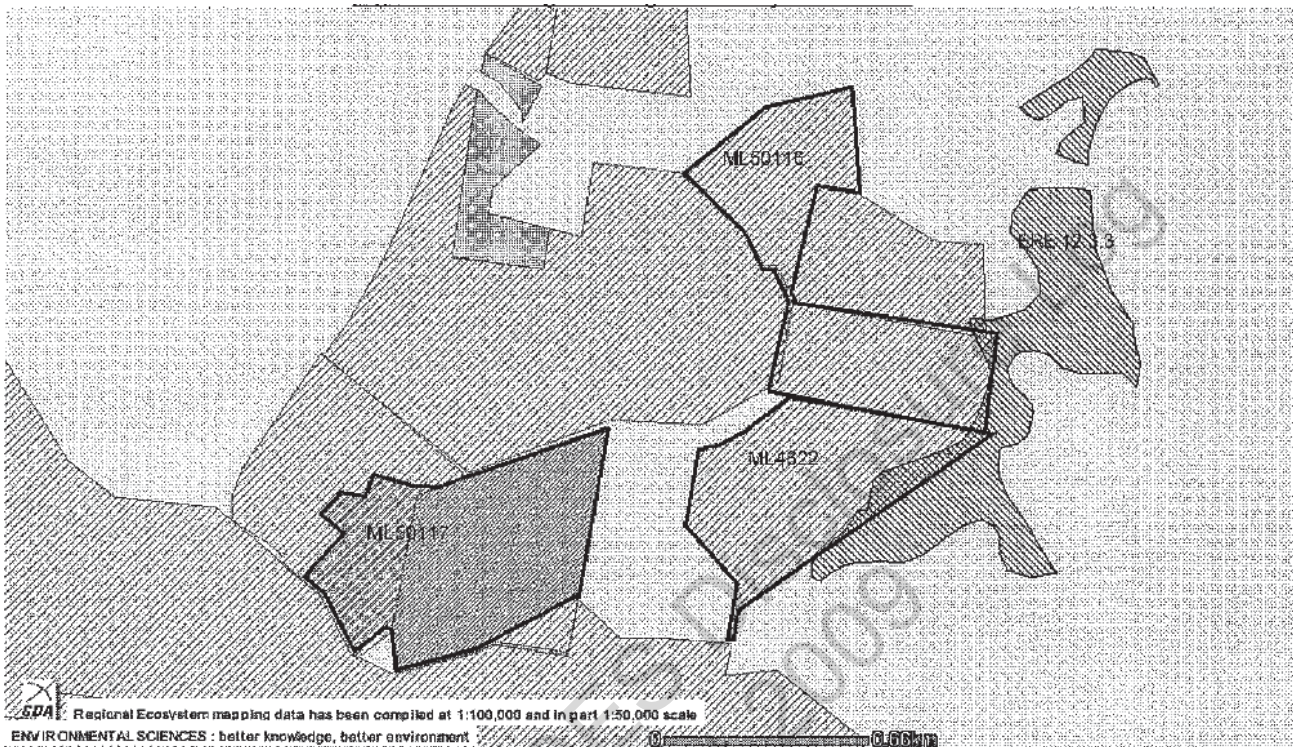


Figure 4– Endangered Regional Ecosystem 12.3.3



END OF CONDITIONS FOR SCHEDULE I

END OF CONDITIONS
END OF ENVIRONMENTAL AUTHORITY



Department of
**Environment and
Heritage Protection**

Ref: 175186

15 October 2014

Boral Resources (Qld) Pty. Limited
PO Box 3062
DARRA QLD 4076

Attention: sch4p4(6) Perso

Dear sch4p4(6) Pe

The administering authority has made amendments to your environmental authority EPML00499213 under Section 215 of the *Environmental Protection Act 1994*. These amendments were agreed by you via email on 14 October 2014.

The Department of Environment and Heritage Protection (EHP) has recently reviewed the annual fees for resource activities. Following feedback from a number of operators, a new category of mining activity has been created: 'clay pit, dimension stone and gemstone mining'. Your activity falls into this new category and your environmental authority has been updated to reflect the change and is enclosed.

The annual fees for clay pit, dimension stone and gemstone mining are lower than the annual fees for the previous category into which your activity fell ('other mining activities'). The new annual fee of \$9,223.50 will be effective from the next anniversary day of your authority which is 19 December 2014 and is not retrospective. This new fee will increase each year in accordance with the government's indexation of fees and charges.

More information on the department's greentape reduction initiatives is on our website www.ehp.qld.gov.au, along with more information about annual fees (search for the document "Summary of fees for environmentally relevant activities" or document number "EM389").

If you have any questions about your annual fee, please contact Permit and Licencing Management by email at palm@ehp.qld.gov.au.

Yours sincerely

sch4p4(6) Personal information

Omar Ameer
Director
Environmental Regulatory Practice and Support

Level 9
400 George Street Brisbane
GPO Box 2454 Brisbane
Queensland 4001 Australia
Telephone 1300 130 372 (Option 4)
Website www.ehp.qld.gov.au
ABN 46 640 294 485

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: EPML00499213

Environmental authority takes effect on 27-OCT-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
Boral Resources (Qld) Pty. Limited T/A Boral Bricks (QLD) Limited	Level 39, AMP Centre 50 Bridge Street SYDNEY NSW 2000

Environmentally relevant activity and location details

Environmentally relevant activity(ies)	Location(s)
Mining - ML Claypit, dimension stone or gemstones - 20(b)	ML1100 ML1106 ML1158 ML1171 ML4583 ML4622 ML50116 ML50117 ML50183

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.

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

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.

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)

sch4p4(6) Personal information



Signature

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

27/10/2014

Date

Enquiries:
Alison Shaw
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

Conditions of environmental authority

Location: ML1106, ML1158, ML1171, ML4583, ML4622, ML50116, ML50117, ML50183

Relevant activity: Mining - ML Claypit, dimension stone or gemstones - 20(b)

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

PART 1 - ENVIRONMENTAL AUTHORITY (MINING LEASE) – (Section 258 Environmental Protection Act 1994)

This part is for carrying out an environmental authority (mining activities) for a mining lease under chapter 5, parts 1, 2 and 6 of the Environmental Protection Act 1994.

Schedule A - General conditions

Prevent or minimise likelihood of environmental harm

- (A1-1) In carrying out the ERA the authority holder must take reasonable and practicable measures to prevent or minimise the likelihood of environmental harm being caused. Any ERA that, if carried out incompetently or negligently may cause environmental harm, shall be carried out in a proper manner in accordance with the conditions of this authority.

Note. This authority authorises the ERA. It does not authorise environmental harm unless a condition hereof explicitly authorises that harm. Where there is no such condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

Maintenance of measures, plant and equipment

- (A2-1) The authority holder must:
- (a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this authority;
 - (b) maintain such measures, plant and equipment in a proper and efficient condition; and
 - (c) operate such measures, plant and equipment in a proper and efficient manner.

Monitoring

- (A3-1) Record, compile and keep for a minimum of five years the results of all monitoring required by this authority and make those records available for inspection upon request by the administering authority.
- (A3-2) Where monitoring is required by this authority, ensure that a competent person conducts all monitoring.

Storage and handling of flammable or combustible liquids

- (A4-1) Spillage of any flammable or combustible liquids must be contained on the site and rectified whereby environmental harm other than of a trivial nature is not caused.
- (A4-2) All petroleum product storage must be designed, constructed and maintained in accordance with Australian Standard 1940 - Storage and Handling of Flammable or Combustible Liquids.

Financial assurance

- (A5-1) Provide a financial assurance in the amount and form required by the administering authority prior to the commencement of the ERA.

NOTE: The calculation of financial assurance for condition (A5-1) must be in accordance with EPA Guideline 17 *Financial Assurance for Mining Activities* and may include a performance discount. The financial assurance amount is defined as the maximum total rehabilitation cost for complete rehabilitation of all significantly disturbed areas, which may vary on an annual basis due to progressive rehabilitation. The amount required for the financial assurance must be the highest Total Rehabilitation Cost calculated for any year of the Plan of Operations and calculated using the formula: Financial Assurance = Highest Total Annual Rehabilitation Cost x Percentage Required.

- (A5-2) The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely.

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

Environmentally sensitive areas

- (A6-1) Mining activities must not be carried out in Endangered Regional Ecosystem 12.3.3 as shown on Figure 4 in Schedule I hereof.

END OF CONDITIONS FOR SCHEDULE A

Schedule B – Air

Dust nuisance

- (B1-1) The release of dust or other particulate matter resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B1-2) For the purposes of condition (B1-1), the ERA will not cause environmental nuisance where dust or other particulate matter resulting from the ERA does not exceed the following limits when measured at any sensitive place:
- (a) dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard 3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulates – Deposited matter – Gravimetric method ; or
 - (b) a concentration of suspended particulate matter with an aerodynamic diameter of less than 10 micrometres (µm) (PM10) of 150 micrograms per cubic metre over a 24 hour averaging time at a sensitive place downwind, when monitored in accordance with:
 - (i) Australian Standard AS 3580.9.6 Methods for sampling and analysis of ambient air – Determination of particulate matter – PM (sub) 10 high-volume sampler with size-selective inlet - Gravimetric method; or
 - (ii) any alternative method of monitoring PM10 which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.
- (B1-3) Dust or other particulate monitoring must be undertaken as directed by the administering authority to investigate any complaint of dust nuisance being caused by the ERA, which complaint in the opinion of an authorised person is not frivolous, vexatious nor based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. Monitoring must be carried out at a site relevant to the potentially affected sensitive place and at upwind control site(s) and must include:
- (a) for a complaint alleging dust nuisance, dust deposition; and
 - (b) for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of suspended PM10 over a 24hr averaging time.
- (B1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by dust or other particulate matter from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement abatement measures so that emission of dust or other particulate matter from the ERA does not result in further environmental nuisance.

Odour nuisance

- (B2-1) Subject to condition (B2-2), the release of noxious or offensive odour or any other noxious or offensive airborne contaminant resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B2-2) Odour monitoring must be undertaken as directed by the administering authority to investigate any complaint of odour nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring.
- (B2-3) If an authorised person's opinion based on monitoring results or otherwise indicates that environmental nuisance is being caused by odour from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement odour abatement measures so that emission of odour from the ERA does not result in further environmental nuisance.

END OF CONDITIONS FOR SCHEDULE B

Schedule C – Water

Management of Stormwater

- (C1-1) Stormwater runoff from the site must be managed in accordance with the following hierarchy:
- (a) avoidance – eg. prevent the amount of contaminated stormwater generated;
 - (b) reuse – eg. reuse contaminated stormwater;
 - (c) recycle – eg. treat contaminated stormwater for reuse; and
 - (d) disposal – eg. dispose of contaminated stormwater in a way that causes the least environmental harm and in accordance with the conditions of this authority.
- (C1-2) Erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment to any waters outside the site.
- (C1-3) The storage design criteria of any stormwater containment dam must be sufficient to contain the runoff expected from a 1 in 10 year AEP 24 hour rainfall event.

Release to waters

- (C2-1) Stormwater runoff from disturbed areas on the site must only be released to waters outside the site from the release points shown in Schedule I and listed in Schedule C – Table 1. Release of stormwater is permitted from the release points if caused by a rainfall event in excess of, or equal to, a 1 in 10 year AEP 24 hour rainfall event, for a period of no longer than 24 hours after cessation of the rainfall event, or otherwise when water is in compliance with the release limits stated in Schedule C - Table 2.

Schedule C - Table 1 (Release points)

Release point	Easting (AMG)	Northing (AMG)
① - ML 1100	496 125	6951 125
② - ML1100	496 500	6950 250
③ - ML4622	483 500	6943 250
④ - ML4622	483 625	6944 125
⑤ - ML1106	496 000	6978 125

Schedule C - Table 2 (Release limits)

Parameter	Units	Minimum	Maximum
pH	-	6.5	8.5
Total Suspended Solids	mg/L	-	50
Conductivity	µs/cm	-	1500

- (C2-2) Contaminants must not be released from the site to any waters or to the bed and banks of any waters outside the site except in accordance with condition (C2-1).

END OF CONDITIONS FOR SCHEDULE C

Schedule D - Noise

Noise nuisance

- (D1-1) Subject to conditions (D1-2) and (D1-3), noise from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (D1-2) Noise monitoring must be undertaken as directed by the administering authority to investigate any complaint of noise nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. For the purposes of this condition, noise monitoring must be done in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual* and include:
- (a) $L_{A, \max \text{ adj, T}}$;
 - (b) relevant background sound level;
 - (c) the level and frequency of occurrence of impulsive or tonal noise;
 - (d) atmospheric conditions including wind speed and direction; and
 - (e) location, date and time of recording.
- (D1-3) For the purposes of condition (D1-1), the ERA will not cause environmental nuisance where noise from the ERA does not exceed the limits specified in Schedule D - Table 1.
- (D1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by noise from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement noise abatement measures so that emissions of noise from the ERA do not result in further environmental nuisance.

Schedule D - Table 1 (Noise limits) *

Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
	<i>Noise measured at a 'Noise sensitive place'</i>					
L _A , max adj, T	Background + 5 dB(A)	Background + 5 dB(A)	Background +3 dB(A)	Background +3 dB(A)	Background +0 dB(A)	Background + 0 dB(A)
	<i>Noise measured at a 'Commercial place'</i>					
L _A , max adj, T	Background + 10 dB(A)	Background + 10 dB(A)	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)

Where "T" is 10 minutes and "Background" means background sound pressure level measured in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual*.

* Schedule D Table 1 does not purport to set operating hours for the ERA.

END OF CONDITIONS FOR SCHEDULE D

Schedule E – Waste

There are no conditions prescribed for this schedule.

END OF CONDITIONS FOR SCHEDULE E

Schedule F – Land

Buffer zones

- (F1-1) There must be no mining activities in the buffer zones shown on Figures 2 and 3 in Schedule I hereof other than for environmental control works (eg. noise bunds), access or provision of services and excepting for abutting mining lease boundaries where the mining leases are held by the holder of this environmental authority.

Rehabilitation landform criteria

- (F2-1) All areas significantly disturbed by mining activities must be rehabilitated in accordance with Schedule F – Table 1.

Rehabilitation outcomes acceptance criteria (Industrial and Residential)

- (F3-1) For the purposes of Schedule F – Table 1, significantly disturbed land nominated for an industrial or residential rehabilitation outcome will be considered rehabilitated when the land is stabilised and does not, or will not, have potential to cause environmental harm.
- (F3-2) Despite condition (F3-1) and pending approval for surrender of this authority, the use of significantly disturbed land and/or mine voids remaining at the end of mine life for an industrial or residential rehabilitation outcome is subject to the operation of relevant legislation (eg. *Integrated Planning Act 1997*).
- (F3-3) Where requisite statutory approval(s) for a final land use and rehabilitation outcome described in Schedule F - Table 1 are not obtained, an alternative rehabilitation outcome must be nominated to the administering authority.

Rehabilitation outcomes acceptance criteria (Rural)

- (F4-1) For the purposes of Schedule F - Table 1, complete an investigation into rehabilitation of significantly disturbed areas nominated for rural rehabilitation outcome and submit a report to the administering authority proposing relevant rehabilitation acceptance criteria by 30 June 2009.
- (F4-2) All relevant areas significantly disturbed by the ERA must be rehabilitated in accordance with the acceptance criteria prescribed in the report required by condition (F4-1) as may be modified by the administering authority. Where no such modification is notified by the administering authority to the authority holder within six months of receipt of the report, then the acceptance criteria prescribed in the report will apply.

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

Tenure ID	Surface Disturbance Area (ha)	Rehabilitation Outcome
ML1100	48.35	Residential
ML1158	5.67	Residential
ML50121	0.95	Residential
ML1106	21.48	Rural or Residential
ML1171	12.75	Rural or Residential
ML50183	2.05	Rural or Residential
ML4622	38.60	Industrial (landfill)
ML50116	12.95	Industrial (landfill)
ML50117	10.67	Industrial (landfill)
ML4583	0	Industrial (landfill)

Progressive rehabilitation

- (F5-1) The top layer and sub layers of the soil profile must be removed and stockpiled separately and retained for the purpose of rehabilitation of significantly disturbed areas.
- (F5-2) Commence progressive rehabilitation of significantly disturbed areas as soon as practicable or when:
- (a) the economic potential of the mineral resource in an area has been exhausted;
 - (b) an area is no longer required for the continuation of the mining activities; and
 - (c) an area is of no further beneficial use to the mining operation.

Infrastructure

- (F6-1) All infrastructure for the ERA including water storage structures, must be removed from the site prior to surrender hereof, except where otherwise agreed to in writing by the land owner and Mining Registrar at the relevant time.

NOTE: This condition is not applicable to the landowner also being the environmental authority holder at the relevant time.

END OF CONDITIONS FOR SCHEDULE F

Schedule G – Community

Complaint response

- (G1-1) All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.

END OF CONDITIONS FOR SCHEDULE 1G

Schedule H - Definitions

Definitions

(H1-1) Words and phrases used in this authority are defined in Schedule H – Definitions. Where a definition for a term used in this authority is sought and the term is not defined herein, the definitions in the Environmental Protection Act 1994, regulations made under that Act, Environmental Protection Policies as amended from time to time or ordinary meaning must be used.

Interpretation

"EMOS" means the Environmental Management Overview Strategy report titled "Boral Bricks Pty Ltd Brisbane District Operations Environmental Management Overview Strategy" dated January 2003. Where required, interpretation of this environmental authority should be in the context of the EMOS.

"acceptance criteria" means the standards by which the actions implemented to rehabilitate land are deemed to be complete. The acceptance criteria relate to 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 collembola, 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; and
- vegetation water use and effects on ground water levels and catchment yields.

"AEP" means "annual exceedence probability" in relation to a given rainfall event, is the probability that the given event will be exceeded within a one year period. The AEP is usually expressed as "1 in n" (years) or as a percentage. The *given rainfall event* comprises a stated depth of rainfall received during a stated period: for example, 750 mm in one year, or 95 mm in 24 hours. If the 24-hour rainfall event having an AEP of 5% is, say, 120 mm, this means that for each year there will be 5% chance that the 24-hour rainfall will be 120 mm, or greater. Another way of expressing this is to say the Average Recurrence Interval is 20 years (Note that this does not mean only 1 occurrence in every 20 years, or only 5 occurrences per century).

"administering authority" means the Environmental Protection Agency or its successor.

"annual return" means the return required by the annual notice (under section 316 of the Environment Protection Act, 1994) for an environmental authority.

"approval" means development permit or preliminary approval decision notice or referral agency response under the Integrated Planning Act 1997.

"authorised place" means the place, land or premises authorised under this authority or approval for the carrying out of the specified environmentally relevant activities.

"authority" means level 1 licence, level 1 approval, level 2 approval or environmental authority (mining activities) under the Environmental Protection Act 1994.

"commercial place" means a place used as an office or for business or commercial purposes other than such a place on the land the subject of this environmental authority.

"competent person" means a person with sufficient demonstrated skill, knowledge and qualifications required to carry out a task to a necessary standard for protection of the environment.

“dam” means a containment whether permanent or temporary, which is designed to contain, divert or control flowing substances. The term does not include a fabricated or manufactured tank or container designed to a recognised standard.

“disturbed areas” or words to that effect means areas that comprise the active mine area, the process plant and the tailings area.

“dwelling” means any of the following structures or vehicles that is principally used as a place for human habitation-

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land; and
- a water craft in a marina.

“authority holder” means the person to whom an environmental authority is issued or transferred to, or a person acting under an environmental authority.

“environmental harm” has the meaning given in the *Environmental Protection Act 1994*.

“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.

“intrusive noise” means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration -

- is clearly audible to, or can be felt by, an individual; and
- annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, reference should be made to Australian Standard 1055.2 - 1997 Acoustics - Description and Measurement of Environmental Noise Part 2 - Application to Specific Situations.

“ $L_{A\ 10, \text{adj}, 10 \text{ mins}}$ ” 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.

“ $L_{A\ 1, \text{adj}, 10 \text{ mins}}$ ” 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.

“ $L_{A, \text{max adj}, T}$ ” means the average maximum A-weighted sound pressure level (adjusted for tonal character and impulsiveness of the sound) and measured over any 10 minute period, using Fast response.

“land” includes waters and the atmosphere.

“mg/L” means milligrams per litre.

“noise sensitive place” means -

- a dwelling, mobile home or caravan park, residential marina or other residential premises;
 - a motel, hotel or hostel;
 - a kindergarten, school, university or other educational institution;
 - a medical centre or hospital;
 - a protected area; and
 - a park or gardens;
- and includes the curtilage of any such place.

“noxious” means harmful or injurious to health or physical well being.

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

“progressive rehabilitation” means rehabilitation (defined below) undertaken progressively or in stages as mining activities or operations are ongoing.

“protected area” means -

- a protected area under the Nature Conservation Act 1992;
- a marine park under the Marine Parks Act 2004; and
- a World Heritage Area.

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

“rehabilitation” means the process of reshaping and revegetating land to restore it to a stable post mining state and in accordance with the acceptance criteria, 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 to different phases of mining activities.

“sensitive place” means;

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises excluding accommodation for persons engaged in the mining activities;
- a motel, hotel or hostel;
- an educational institution;
- a medical centre or hospital;
- a public park or gardens (including a protected area); and
- a commercial place;

and includes the curtilage of any such place.

“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.

“significantly disturbed” or words to that effect means -

- (a) contaminated land; or
- (b) land that has been disturbed and human intervention is needed to rehabilitate it;
 - (i) including:
 - 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 waters where mining project activities occur;
 - areas submerged by tailings or hazardous contaminant storage dams in all cases;
 - areas under temporary infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be removed after mining has ceased;
 - or
 - (ii) not including
 - areas off mining 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 administering authority, areas previously significantly disturbed which have not achieved the rehabilitation objectives due to circumstances beyond the control of the authority holder (such as climatic conditions);
 - areas under permanent infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be lawfully left on the site post authority surrender.
 - disturbances that pre-existed the grant of the mining tenure unless those areas are disturbed during the term of the tenure.

“site” means the place or premises to which this authority or approval relates.

“stable” means geotechnical stability of a rehabilitated landform where instability caused by settlement and subsidence has ceased.

"**µs/cm**" means micro semen per centimetre.

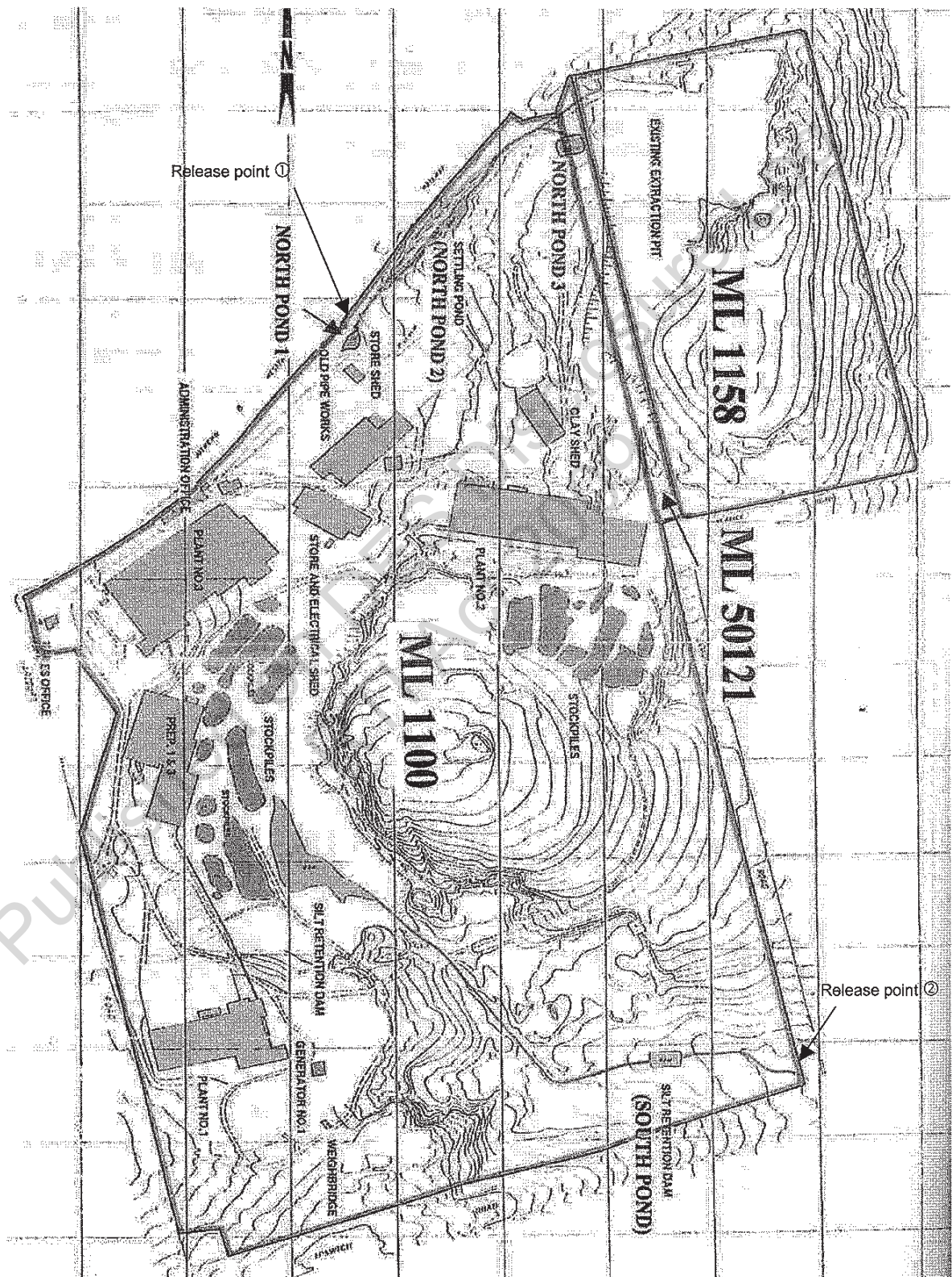
"**waters**" includes any watercourse, lake, lagoon, pond, swamp, wetland, bed and bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off or groundwater.

END OF CONDITIONS FOR SCHEDULE 1H

Published on DES Disclosure Log
RTI Act 2009

Schedule I – Maps / Plans

Figure 1 - Darra



Release

Figure 2 – Redbank Plains

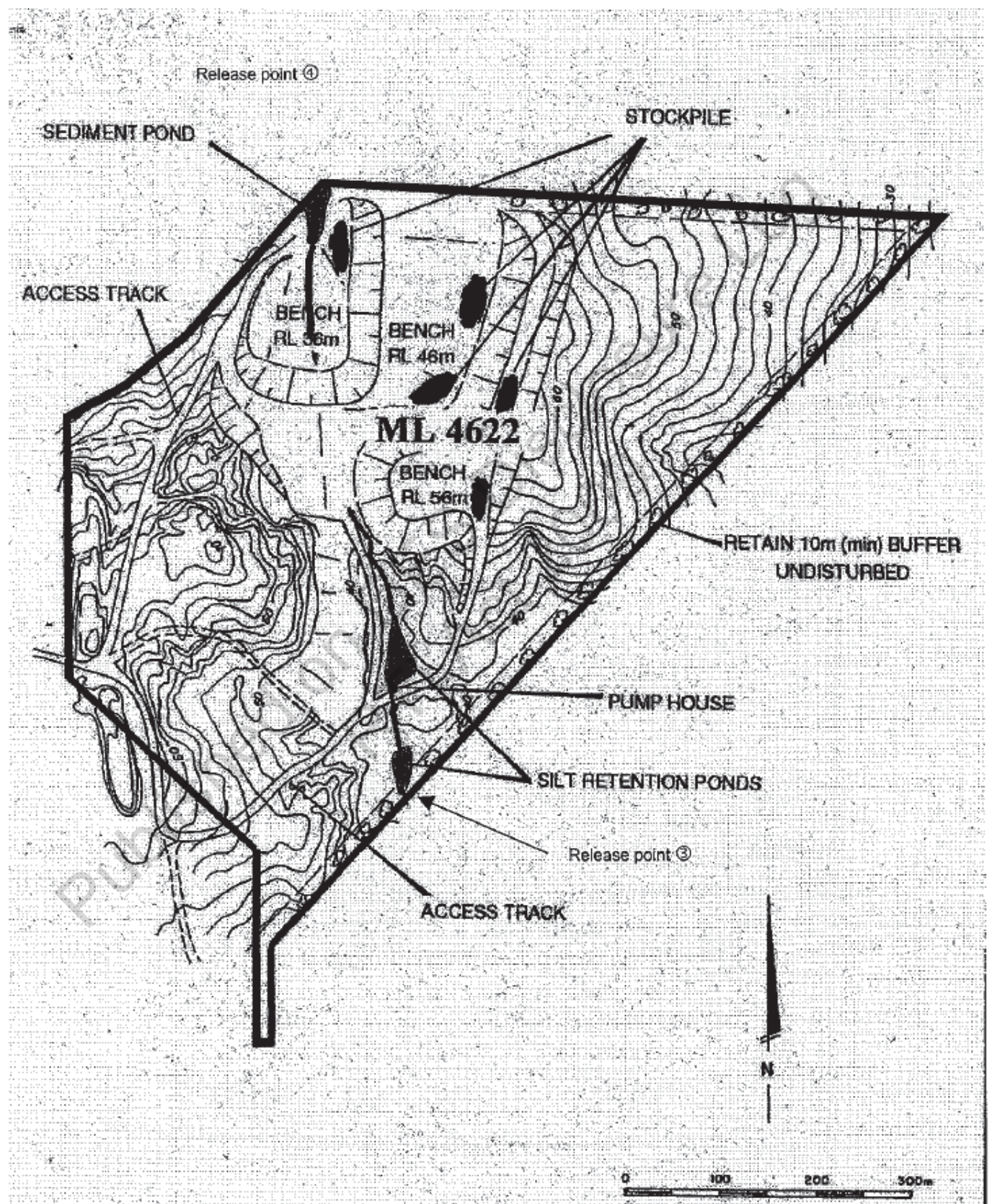


Figure 3 - Strathpine

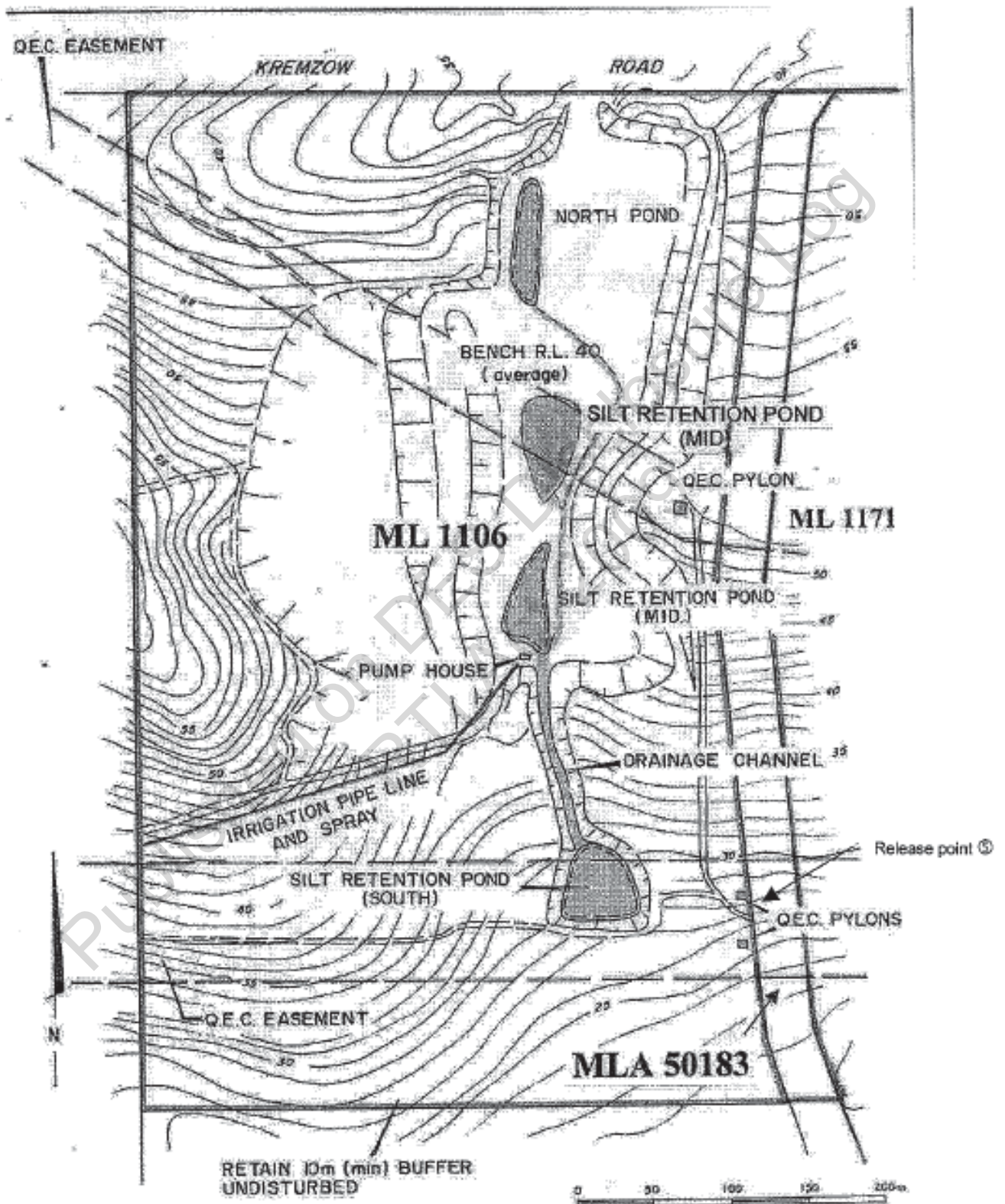
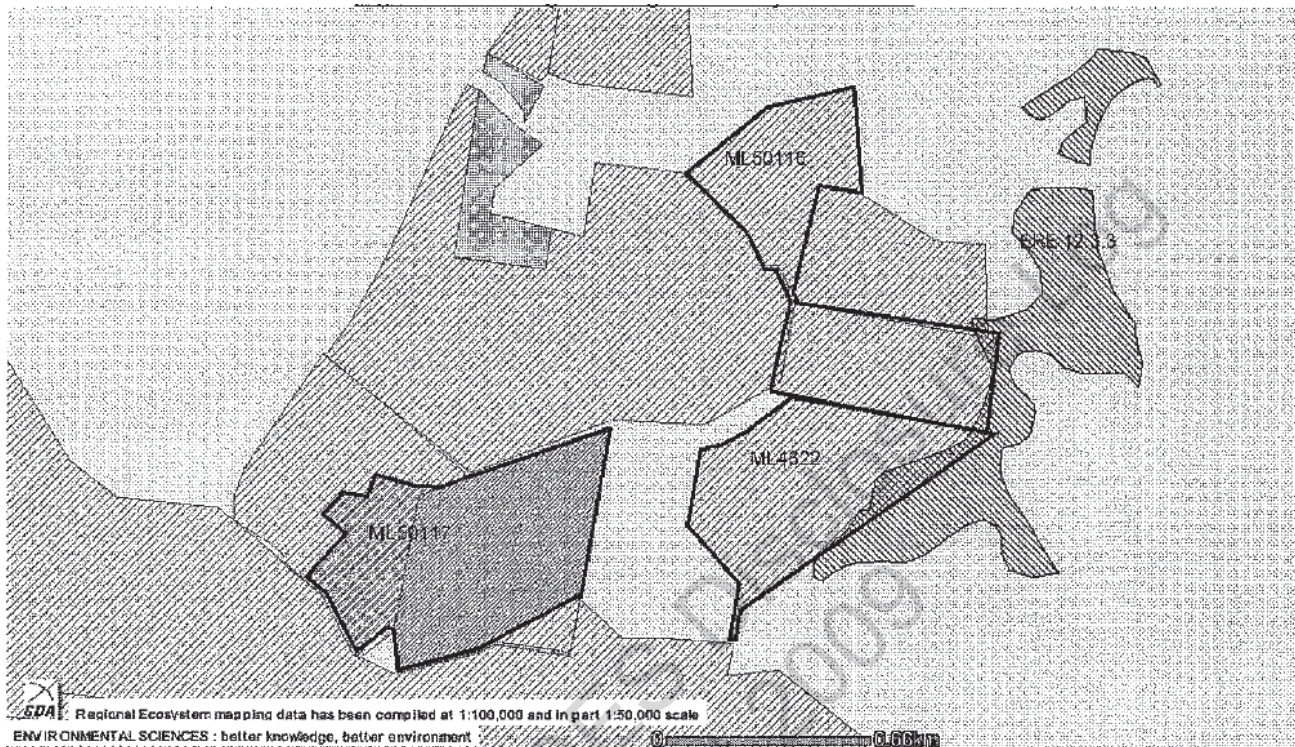


Figure 4– Endangered Regional Ecosystem 12.3.3



END OF CONDITIONS FOR SCHEDULE I

END OF CONDITIONS
END OF ENVIRONMENTAL AUTHORITY

Notice

Environmental Protection Act 1994

Amendment of an environmental authority by the administering authority

This notice is issued by the administering authority¹, pursuant to section 211 of the Environmental Protection Act 1994 to advise that an environmental authority is being amended.

To: Boral Resources (Qld) Pty. Limited T/A Boral
Bricks (QLD) Limited
PO Box 3062
DARRA QLD 4076

Our reference: 175186

Amendment of an environmental authority to correct a clerical error.

1. Environmental authority details

Environmental authority number EPML00499213 dated 27-Oct-2014.

Land description: ML1100.

Amendment

The administering authority has become aware that there is a clerical error on the environmental authority that requires correction. This correction is minor in nature and will not adversely impact your interests or anyone else. As a result, the following amendment will be made to your environmental authority:

ML1100 was accidentally removed off the environmental authority.

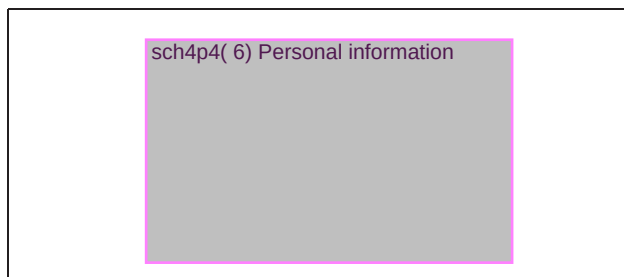
The amended environmental authority is enclosed with this notice.

2. Review and appeal rights

You may apply to the administering authority for a review of this decision within 10 business days after receiving this notice. You may also appeal against this decision to the Land Court. Information about your review and appeal rights is attached to this notice. This information is guidance only and you may have other legal rights and obligations.

¹ The Department of Environment and Heritage Protection is the administering authority under the *Environmental Protection Act 1994*.

Amendment of an environmental authority by the administering authority



Signature

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



Date

Enquiries:

Alison Shaw
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

Published on DES Disclosure Log
RTI Act 2009

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: EPML00499213

Environmental authority takes effect on 27 January 2015

The anniversary date of this environmental authority is 19 December. An annual return and annual fee will be due each year on this date.

Environmental authority holder(s)

Name	Registered address
Boral Resources (Qld) Pty. Limited T/A Boral Bricks (QLD) Limited	Boral Bricks East Level 3 40 Mount St NORTH SYDNEY, NSW 2060

Environmentally relevant activity and location details

Environmentally relevant activity(ies)	Location(s)
Mining - ML Claypit, dimension stone or gemstones - 20(b)	ML1100 ML1106 ML1158 ML1171 ML4583 ML4622 ML50116 ML50117 ML50183

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.

sch4p4(6)

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

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

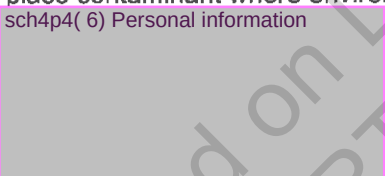
It is a requirement of the EP Act that if an owner or occupier of land becomes aware a notifiable activity (as defined in Schedule 3 and Schedule 4) is being carried out on the land, or that the land has been, or is being, contaminated by a hazardous contaminant, the owner or occupier must, within 22 business days after becoming so aware, give written notice to the chief executive.

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)

sch4p4(6) Personal information



Signature

27 / 1 / 15

Date

Dean Sharpe
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
PO Box 7230
CAIRNS QLD 4870
Phone: (07) 4222 5334
Fax: (07) 4222 5070

Conditions of environmental authority

Location: ML1100, ML1106, ML1158, ML1171, ML4583, ML4622, ML50116, ML50117, ML50183

Relevant activity: Mining - ML Claypit, dimension stone or gemstones - 20(b)

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

PART 1 - ENVIRONMENTAL AUTHORITY (MINING LEASE) – (Section 258 Environmental Protection Act 1994)

This part is for carrying out an environmental authority (mining activities) for a mining lease under chapter 5, parts 1, 2 and 6 of the Environmental Protection Act 1994.

Schedule A - General conditions

Prevent or minimise likelihood of environmental harm

(A1-1) In carrying out the ERA the authority holder must take reasonable and practicable measures to prevent or minimise the likelihood of environmental harm being caused. Any ERA that, if carried out incompetently or negligently may cause environmental harm, shall be carried out in a proper manner in accordance with the conditions of this authority.

Note. This authority authorises the ERA. It does not authorise environmental harm unless a condition hereof explicitly authorises that harm. Where there is no such condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

Maintenance of measures, plant and equipment

(A2-1) The authority holder must:

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

Monitoring

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

(A3-2) Where monitoring is required by this authority, ensure that a competent person conducts all monitoring.

Storage and handling of flammable or combustible liquids

(A4-1) Spillage of any flammable or combustible liquids must be contained on the site and rectified whereby environmental harm other than of a trivial nature is not caused.

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

Financial assurance

(A5-1) Provide a financial assurance in the amount and form required by the administering authority prior to the commencement of the ERA.

NOTE: The calculation of financial assurance for condition (A5-1) must be in accordance with EPA Guideline 17 *Financial Assurance for Mining Activities* and may include a performance discount. The financial assurance amount is defined as the maximum total rehabilitation cost for complete rehabilitation of all significantly disturbed areas, which may vary on an annual basis due to progressive rehabilitation. The amount required for the financial assurance must be the highest Total Rehabilitation Cost calculated for any year of the Plan of Operations and calculated using the formula: Financial Assurance = Highest Total Annual Rehabilitation Cost x Percentage Required.

- (A5-2) The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely.

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

Environmentally sensitive areas

- (A6-1) Mining activities must not be carried out in Endangered Regional Ecosystem 12.3.3 as shown on Figure 4 in Schedule I hereof.

END OF CONDITIONS FOR SCHEDULE A

Schedule B – Air

Dust nuisance

- (B1-1) The release of dust or other particulate matter resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B1-2) For the purposes of condition (B1-1), the ERA will not cause environmental nuisance where dust or other particulate matter resulting from the ERA does not exceed the following limits when measured at any sensitive place:
- (a) dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard 3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulates – Deposited matter – Gravimetric method ; or
 - (b) a concentration of suspended particulate matter with an aerodynamic diameter of less than 10 micrometres (µm) (PM10) of 150 micrograms per cubic metre over a 24 hour averaging time at a sensitive place downwind, when monitored in accordance with:
 - (i) Australian Standard AS 3580.9.6 Methods for sampling and analysis of ambient air – Determination of particulate matter – PM (sub) 10 high-volume sampler with size-selective inlet - Gravimetric method; or
 - (ii) any alternative method of monitoring PM10 which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.
- (B1-3) Dust or other particulate monitoring must be undertaken as directed by the administering authority to investigate any complaint of dust nuisance being caused by the ERA, which complaint in the opinion of an authorised person is not frivolous, vexatious nor based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. Monitoring must be carried out at a site relevant to the potentially affected sensitive place and at upwind control site(s) and must include:
- (a) for a complaint alleging dust nuisance, dust deposition; and
 - (b) for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of suspended PM10 over a 24hr averaging time.
- (B1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by dust or other particulate matter from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement abatement measures so that emission of dust or other particulate matter from the ERA does not result in further environmental nuisance.

Odour nuisance

- (B2-1) Subject to condition (B2-2), the release of noxious or offensive odour or any other noxious or offensive airborne contaminant resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B2-2) Odour monitoring must be undertaken as directed by the administering authority to investigate any complaint of odour nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring.
- (B2-3) If an authorised person's opinion based on monitoring results or otherwise indicates that environmental nuisance is being caused by odour from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement odour abatement measures so that emission of odour from the ERA does not result in further environmental nuisance.

END OF CONDITIONS FOR SCHEDULE B

Schedule C – Water

Management of Stormwater

- (C1-1) Stormwater runoff from the site must be managed in accordance with the following hierarchy:
- (a) avoidance – eg. prevent the amount of contaminated stormwater generated;
 - (b) reuse – eg. reuse contaminated stormwater;
 - (c) recycle – eg. treat contaminated stormwater for reuse; and
 - (d) disposal – eg. dispose of contaminated stormwater in a way that causes the least environmental harm and in accordance with the conditions of this authority.
- (C1-2) Erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment to any waters outside the site.
- (C1-3) The storage design criteria of any stormwater containment dam must be sufficient to contain the runoff expected from a 1 in 10 year AEP 24 hour rainfall event.

Release to waters

- (C2-1) Stormwater runoff from disturbed areas on the site must only be released to waters outside the site from the release points shown in Schedule I and listed in Schedule C – Table 1. Release of stormwater is permitted from the release points if caused by a rainfall event in excess of, or equal to, a 1 in 10 year AEP 24 hour rainfall event, for a period of no longer than 24 hours after cessation of the rainfall event, or otherwise when water is in compliance with the release limits stated in Schedule C - Table 2.

Schedule C - Table 1 (Release points)

Release point	Easting (AMG)	Northing (AMG)
① - ML 1100	496 125	6951 125
② - ML1100	496 500	6950 250
③ - ML4622	483 500	6943 250
④ - ML4622	483 625	6944 125
⑤ - ML1106	496 000	6978 125

Schedule C - Table 2 (Release limits)

Parameter	Units	Minimum	Maximum
pH		6.5	8.5
Total Suspended Solids	mg/L	-	50
Conductivity	µs/cm	-	1500

- (C2-2) Contaminants must not be released from the site to any waters or to the bed and banks of any waters outside the site except in accordance with condition (C2-1).

END OF CONDITIONS FOR SCHEDULE C

Schedule D - Noise

Noise nuisance

- (D1-1) Subject to conditions (D1-2) and (D1-3), noise from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (D1-2) Noise monitoring must be undertaken as directed by the administering authority to investigate any complaint of noise nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. For the purposes of this condition, noise monitoring must be done in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual* and include:
- $L_{A, \max \text{ adj, T}}$;
 - relevant background sound level;
 - the level and frequency of occurrence of impulsive or tonal noise;
 - atmospheric conditions including wind speed and direction; and
 - location, date and time of recording.
- (D1-3) For the purposes of condition (D1-1), the ERA will not cause environmental nuisance where noise from the ERA does not exceed the limits specified in Schedule D - Table 1.
- (D1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by noise from the ERA, the authority holder must:
- address the complaint including the use of appropriate dispute resolution if required; or
 - immediately implement noise abatement measures so that emissions of noise from the ERA do not result in further environmental nuisance.

Schedule D - Table 1 (Noise limits) *

Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
Noise measured at a 'Noise sensitive place'						
$L_{A, \max \text{ adj, T}}$	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)	Background + 0 dB(A)	Background + 0 dB(A)
Noise measured at a 'Commercial place'						
$L_{A, \max \text{ adj, T}}$	Background + 10 dB(A)	Background + 10 dB(A)	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)

Where "T" is 10 minutes and "Background" means background sound pressure level measured in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual*.

* Schedule D Table 1 does not purport to set operating hours for the ERA.

END OF CONDITIONS FOR SCHEDULE D

Schedule E – Waste

There are no conditions prescribed for this schedule.

END OF CONDITIONS FOR SCHEDULE E

Schedule F – Land

Buffer zones

- (F1-1) There must be no mining activities in the buffer zones shown on Figures 2 and 3 in Schedule I hereof other than for environmental control works (eg. noise bunds), access or provision of services and excepting for abutting mining lease boundaries where the mining leases are held by the holder of this environmental authority.

Rehabilitation landform criteria

- (F2-1) All areas significantly disturbed by mining activities must be rehabilitated in accordance with Schedule F – Table 1.

Rehabilitation outcomes acceptance criteria (Industrial and Residential)

- (F3-1) For the purposes of Schedule F – Table 1, significantly disturbed land nominated for an industrial or residential rehabilitation outcome will be considered rehabilitated when the land is stabilised and does not, or will not, have potential to cause environmental harm.
- (F3-2) Despite condition (F3-1) and pending approval for surrender of this authority, the use of significantly disturbed land and/or mine voids remaining at the end of mine life for an industrial or residential rehabilitation outcome is subject to the operation of relevant legislation (eg. *Integrated Planning Act 1997*).
- (F3-3) Where requisite statutory approval(s) for a final land use and rehabilitation outcome described in Schedule F - Table 1 are not obtained, an alternative rehabilitation outcome must be nominated to the administering authority.

Rehabilitation outcomes acceptance criteria (Rural)

- (F4-1) For the purposes of Schedule F - Table 1, complete an investigation into rehabilitation of significantly disturbed areas nominated for rural rehabilitation outcome and submit a report to the administering authority proposing relevant rehabilitation acceptance criteria by 5 March 2015.
- (F4-2) All relevant areas significantly disturbed by the ERA must be rehabilitated in accordance with the acceptance criteria prescribed in the report required by condition (F4-1) as may be modified by the administering authority. Where no such modification is notified by the administering authority to the authority holder within six months of receipt of the report, then the acceptance criteria prescribed in the report will apply.

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

Tenure ID	Surface Disturbance Area (ha)	Rehabilitation Outcome
ML1100	48.35	Residential
ML1158	5.67	Residential
ML50121	0.95	Residential
ML1106	21.48	Rural or Residential
ML1171	12.75	Rural or Residential
ML50183	2.05	Rural or Residential
ML4622	38.60	Industrial (landfill)
ML50116	12.95	Industrial (landfill)
ML50117	10.67	Industrial (landfill)
ML4583	0	Industrial (landfill)

Progressive rehabilitation

- (F5-1) The top layer and sub layers of the soil profile must be removed and stockpiled separately and retained for the purpose of rehabilitation of significantly disturbed areas.
- (F5-2) Commence progressive rehabilitation of significantly disturbed areas as soon as practicable or when:
- (a) the economic potential of the mineral resource in an area has been exhausted;
 - (b) an area is no longer required for the continuation of the mining activities; and
 - (c) an area is of no further beneficial use to the mining operation.

Infrastructure

- (F6-1) All infrastructure for the ERA including water storage structures, must be removed from the site prior to surrender hereof, except where otherwise agreed to in writing by the land owner and Mining Registrar at the relevant time.

NOTE: This condition is not applicable to the landowner also being the environmental authority holder at the relevant time.

END OF CONDITIONS FOR SCHEDULE F

Schedule G – Community

Complaint response

- (G1-1) All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.

END OF CONDITIONS FOR SCHEDULE 1G

Schedule H - Definitions

Definitions

(H1-1) Words and phrases used in this authority are defined in **Schedule H – Definitions**. Where a definition for a term used in this authority is sought and the term is not defined herein, the definitions in the Environmental Protection Act 1994, regulations made under that Act, Environmental Protection Policies as amended from time to time or ordinary meaning must be used.

Interpretation

"EMOS" means the Environmental Management Overview Strategy report titled "Boral Bricks Pty Ltd Brisbane District Operations Environmental Management Overview Strategy" dated January 2003. Where required, interpretation of this environmental authority should be in the context of the EMOS.

"acceptance criteria" means the standards by which the actions implemented to rehabilitate land are deemed to be complete. The acceptance criteria relate to 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 collembola, 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; and
- vegetation water use and effects on ground water levels and catchment yields.

"AEP" means "annual exceedence probability" in relation to a given rainfall event, is the probability that the given event will be exceeded within a one year period. The AEP is usually expressed as "1 in n" (years) or as a percentage. The *given rainfall event* comprises a stated depth of rainfall received during a stated period: for example, 750 mm in one year, or 95 mm in 24 hours. If the 24-hour rainfall event having an AEP of 5% is, say, 120 mm, this means that for each year there will be 5% chance that the 24-hour rainfall will be 120 mm, or greater. Another way of expressing this is to say the Average Recurrence Interval is 20 years (Note that this does not mean only 1 occurrence in every 20 years, or only 5 occurrences per century).

"administering authority" means the Environmental Protection Agency or its successor.

"annual return" means the return required by the annual notice (under section 316 of the Environment Protection Act, 1994) for an environmental authority.

"approval" means development permit or preliminary approval decision notice or referral agency response under the Integrated Planning Act 1997.

"authorised place" means the place, land or premises authorised under this authority or approval for the carrying out of the specified environmentally relevant activities.

"authority" means level 1 licence, level 1 approval, level 2 approval or environmental authority (mining activities) under the Environmental Protection Act 1994.

"commercial place" means a place used as an office or for business or commercial purposes other than such a place on the land the subject of this environmental authority.

"competent person" means a person with sufficient demonstrated skill, knowledge and qualifications required to carry out a task to a necessary standard for protection of the environment.

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

"disturbed areas" or words to that effect means areas that comprise the active mine area, the process plant and the tailings area.

"dwelling" means any of the following structures or vehicles that is principally used as a place for human habitation-

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land; and
- a water craft in a marina.

"authority holder" means the person to whom an environmental authority is issued or transferred to, or a person acting under an environmental authority.

"environmental harm" has the meaning given in the *Environmental Protection Act 1994*.

"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.

"intrusive noise" means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration -

- is clearly audible to, or can be felt by, an individual; and
- annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, reference should be made to Australian Standard 1055.2 - 1997 Acoustics - Description and Measurement of Environmental Noise Part 2 - Application to Specific Situations.

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

" $L_{A\ 1, \text{adj}, 10 \text{ mins}}$ " 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.

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

"land" includes waters and the atmosphere.

"mg/L" means milligrams per litre.

"noise sensitive place" means -

- a dwelling, mobile home or caravan park, residential marina or other residential premises;
 - a motel, hotel or hostel;
 - a kindergarten, school, university or other educational institution;
 - a medical centre or hospital;
 - a protected area; and
 - a park or gardens;
- and includes the curtilage of any such place.

"noxious" means harmful or injurious to health or physical well being.

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

"progressive rehabilitation" means rehabilitation (defined below) undertaken progressively or in stages as mining activities or operations are ongoing.

"protected area" means -

- a protected area under the Nature Conservation Act 1992;
- a marine park under the Marine Parks Act 2004; and
- a World Heritage Area.

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

"rehabilitation" means the process of reshaping and revegetating land to restore it to a stable post mining state and in accordance with the acceptance criteria, 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 to different phases of mining activities.

"sensitive place" means;

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises excluding accommodation for persons engaged in the mining activities;
- a motel, hotel or hostel;
- an educational institution;
- a medical centre or hospital;
- a public park or gardens (including a protected area); and
- a commercial place;

and includes the curtilage of any such place.

"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.

"significantly disturbed" or words to that effect means -

(a) contaminated land; or

(b) land that has been disturbed and human intervention is needed to rehabilitate it;

(i) including:

- 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 waters where mining project activities occur;
- areas submerged by tailings or hazardous contaminant storage dams in all cases;
- areas under temporary infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be removed after mining has ceased;

or

(ii) not including

- areas off mining 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 administering authority, areas previously significantly disturbed which have not achieved the rehabilitation objectives due to circumstances beyond the control of the authority holder (such as climatic conditions);
- areas under permanent infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be lawfully left on the site post authority surrender.
- disturbances that pre-existed the grant of the mining tenure unless those areas are disturbed during the term of the tenure.

"site" means the place or premises to which this authority or approval relates.

"stable" means geotechnical stability of a rehabilitated landform where instability caused by settlement and subsidence has ceased.

"**µs/cm**" means micro semen per centimetre.

"**waters**" includes any watercourse, lake, lagoon, pond, swamp, wetland, bed and bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off or groundwater.

END OF CONDITIONS FOR SCHEDULE H

Published on DES Disclosure Log
RTI Act 2009

Schedule I – Maps / Plans

Figure 1 - Darra

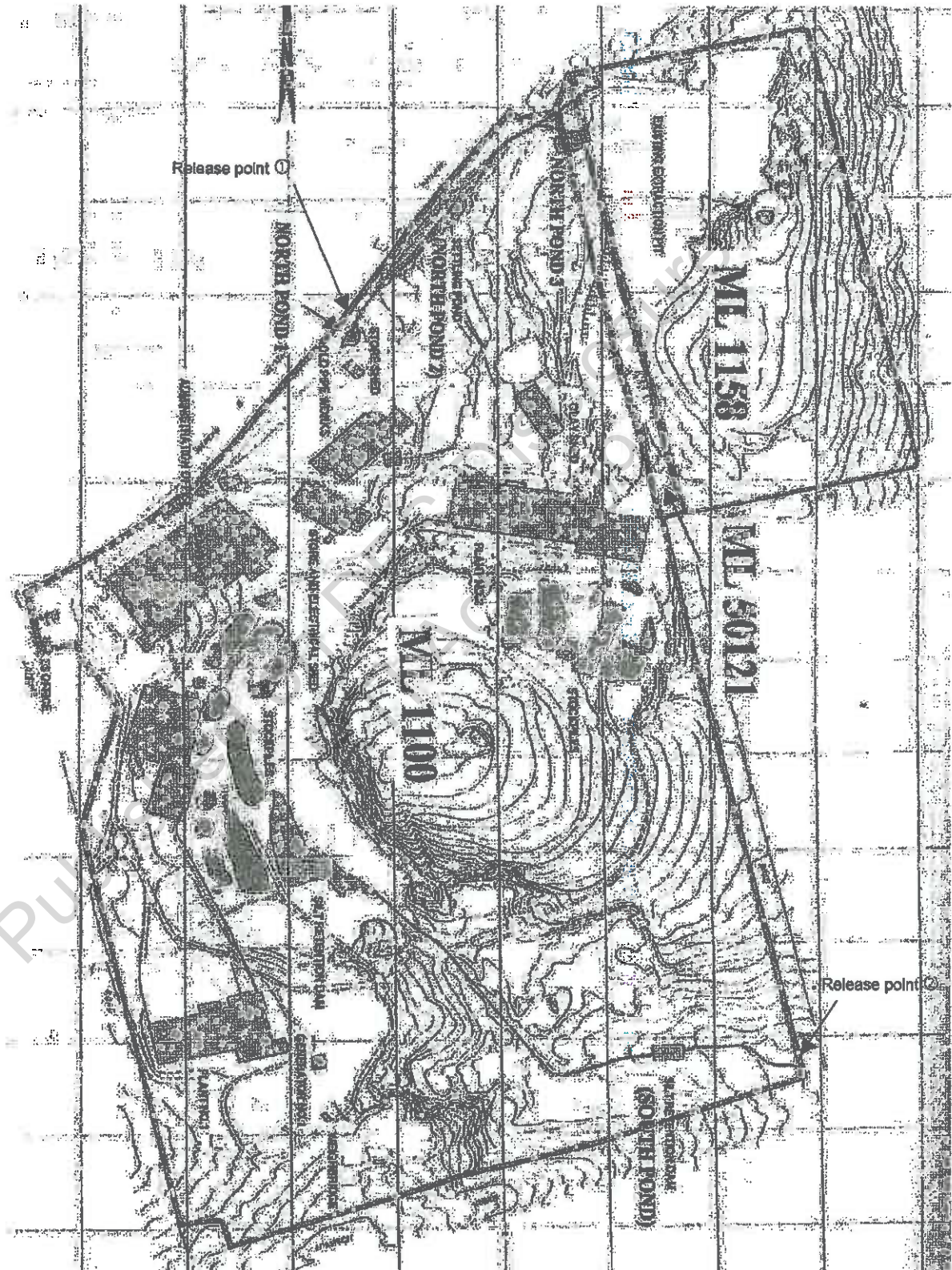


Figure 2 – Redbank Plains

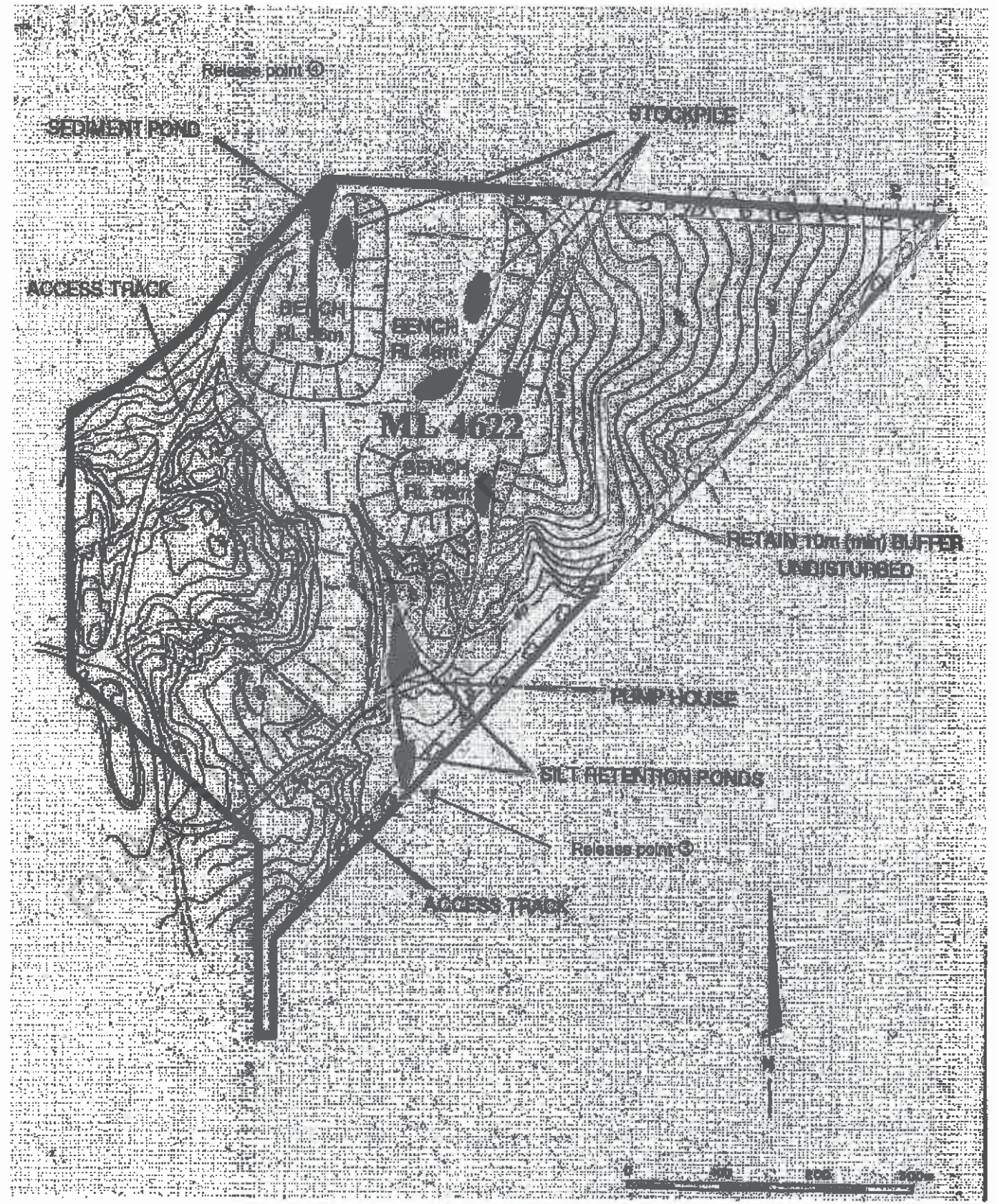


Figure 3 - Strathpine

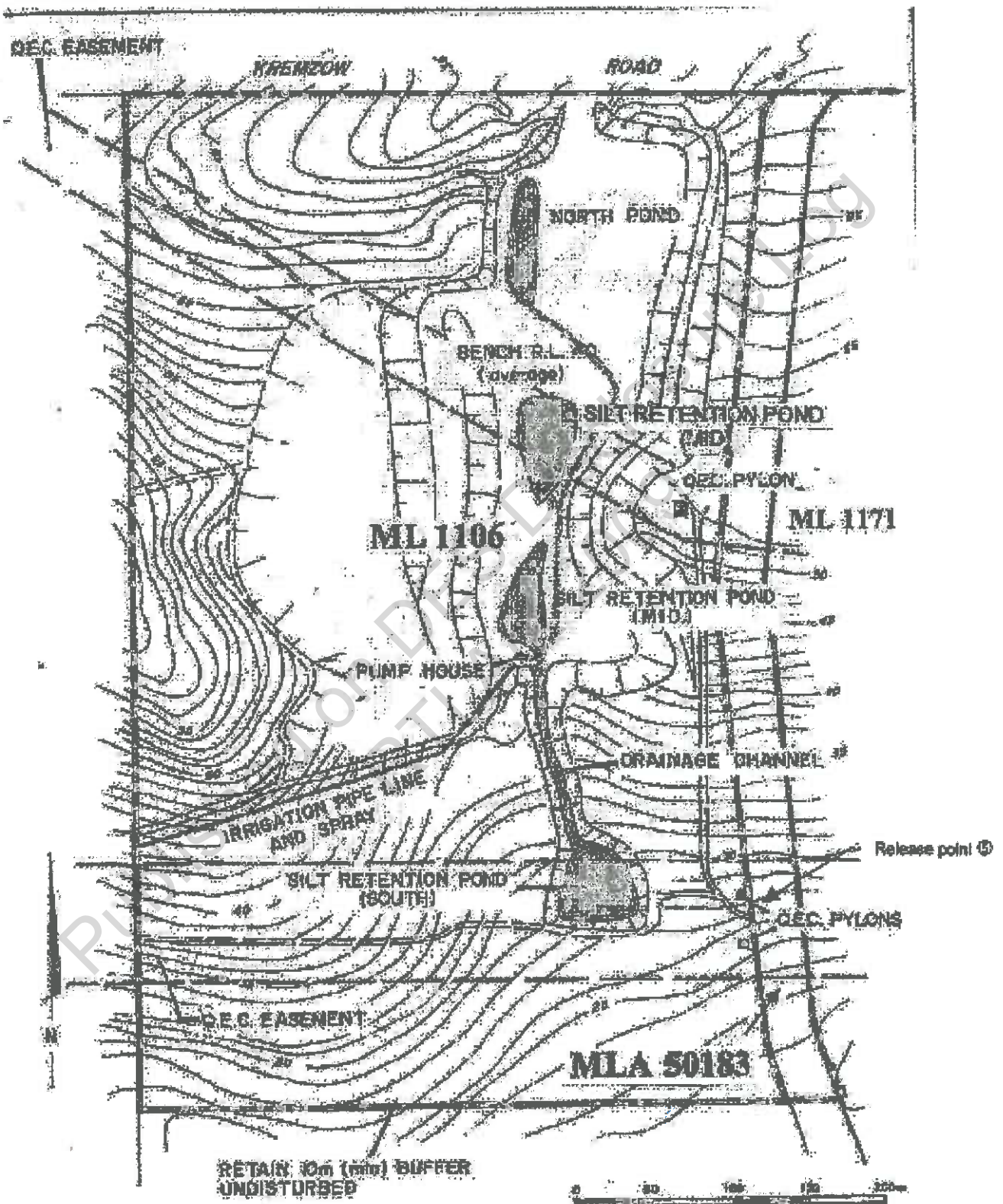


Figure 4– Endangered Regional Ecosystem 12.3.3



END OF CONDITIONS FOR SCHEDULE I

END OF CONDITIONS

END OF ENVIRONMENTAL AUTHORITY

sch4p4(6) Pers

Notice

Environmental Protection Act 1994

Amendment of an environmental authority by the administering authority

This document is issued by the administering authority¹, pursuant to section 215(1)(b) of the Environmental Protection Act 1994 to advise that an environmental authority is being amended.

Boral Bricks East
Level 3
40 Mount St
NORTH SYDNEY, NSW 2060

Cc: Department of Natural Resources and Mines
Mineral Assessment Hub
PO Box 1752
TOWNSVILLE QLD 4810

Cc: Boral Resources (Qld) Pty. Limited T/A Boral
Bricks (QLD) Limited
PO Box 3062
DARRA QLD 4076

Email: sch4p4(6) F @boral.com.au

Your reference : EPML00499213

Our reference : 175186, 101/0007907

Attention: sch4p4(6) Pers

Re: Amendment of an environmental authority

1. Environmental authority details

Environmental authority number: EPML00499213

Land description: ML1100; ML1106; ML1158; ML1171; ML4583; ML4622; ML50116; ML50117 and ML50183.

2. Amendment

Please be advised that the administering authority has amended Environmental Authority EPML00499213 under section 215 of the *Environmental Protection Act 1994*.

¹ The Department of Environment and Heritage Protection is the administering authority under the *Environmental Protection Act 1994*.

Amendment of an environmental authority by the administering authority

The amendment made is set out below:

(F4-1) For the purposes of Schedule F - Table 1, complete an investigation into rehabilitation of significantly disturbed areas nominated for rural rehabilitation outcome and submit a report to the administering authority proposing relevant rehabilitation acceptance criteria by 5 March 2015.

The amended environmental authority is enclosed for your records.

Yours sincerely

sch4p4(6) Personal information



Signature



Date

Dean Sharpe
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
PO Box 7230
CAIRNS QLD 4870
Phone: (07) 4222 5334
Fax: (07) 4222 5070

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: EPML00499213

Environmental authority takes effect on 26 October 2015

The anniversary date of this environmental authority is 19 December. An annual return and annual fee will be due each year on this date.

Environmental authority holder(s)

Name	Registered address
Boral Resources (Qld) Pty. Limited T/A Boral Bricks (QLD) Limited	Boral Bricks East Level 3 40 Mount St NORTH SYDNEY, NSW 2060

Environmentally relevant activity and location details

Environmentally relevant activity(ies)	Location(s)
Mining - ML Claypit, dimension stone or gemstones - 20(b)	ML1100 ML1106 ML1171 ML4583 ML4622 ML50116 ML50117 ML50183

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.

Release

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

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.

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)

sch4p4(6) Personal information

Signature

Hamish Butler
Delegate of the administering authority
Environmental Protection Act 1994

26/10/2015

Date

Enquiries:
PO Box 7230
CAIRNS QLD 4870
Phone: (07) 4222 5334
Fax: (07) 4222 5070

Conditions of environmental authority

Location: ML1100, ML1106, ML1171, ML4583, ML4622, ML50116, ML50117, ML50183

Relevant activity: Mining - ML Claypit, dimension stone or gemstones - 20(b)

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

**PART 1 - ENVIRONMENTAL AUTHORITY (MINING LEASE) – (Section 258
Environmental Protection Act 1994)**

This part is for carrying out an environmental authority (mining activities) for a mining lease under chapter 5, parts 1, 2 and 6 of the Environmental Protection Act 1994.

Schedule A - General conditions

Prevent or minimise likelihood of environmental harm

(A1-1) In carrying out the ERA the authority holder must take reasonable and practicable measures to prevent or minimise the likelihood of environmental harm being caused. Any ERA that, if carried out incompetently or negligently may cause environmental harm, shall be carried out in a proper manner in accordance with the conditions of this authority.

Note. This authority authorises the ERA. It does not authorise environmental harm unless a condition hereof explicitly authorises that harm. Where there is no such condition or the authority is silent on a matter, the lack of a condition or silence shall not be construed as authorising harm.

Maintenance of measures, plant and equipment

(A2-1) The authority holder must:

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

Monitoring

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

(A3-2) Where monitoring is required by this authority, ensure that a competent person conducts all monitoring.

Storage and handling of flammable or combustible liquids

(A4-1) Spillage of any flammable or combustible liquids must be contained on the site and rectified whereby environmental harm other than of a trivial nature is not caused.

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

Financial assurance

(A5-1) Provide a financial assurance in the amount and form required by the administering authority prior to the commencement of the ERA.

NOTE: The calculation of financial assurance for condition (A5-1) must be in accordance with EPA Guideline 17 *Financial Assurance for Mining Activities* and may include a performance discount. The financial assurance amount is defined as the maximum total rehabilitation cost for complete rehabilitation of all significantly disturbed areas, which may vary on an annual basis due to progressive rehabilitation. The amount required for the financial assurance must be the highest Total Rehabilitation Cost calculated for any year of the Plan of Operations and calculated using the formula: Financial Assurance = Highest Total Annual Rehabilitation Cost x Percentage Required.

- (A5-2) The financial assurance is to remain in force until the administering authority is satisfied that no claim on the assurance is likely.

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

Environmentally sensitive areas

- (A6-1) Mining activities must not be carried out in Endangered Regional Ecosystem 12.3.3 as shown on Figure 4 in Schedule I hereof.

END OF CONDITIONS FOR SCHEDULE A

Schedule B – Air

Dust nuisance

- (B1-1) The release of dust or other particulate matter resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B1-2) For the purposes of condition (B1-1), the ERA will not cause environmental nuisance where dust or other particulate matter resulting from the ERA does not exceed the following limits when measured at any sensitive place:
- (a) dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard 3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulates – Deposited matter – Gravimetric method ; or
 - (b) a concentration of suspended particulate matter with an aerodynamic diameter of less than 10 micrometres (µm) (PM10) of 150 micrograms per cubic metre over a 24 hour averaging time at a sensitive place downwind, when monitored in accordance with:
 - (i) Australian Standard AS 3580.9.6 Methods for sampling and analysis of ambient air – Determination of particulate matter – PM (sub) 10 high-volume sampler with size-selective inlet - Gravimetric method; or
 - (ii) any alternative method of monitoring PM10 which may be permitted by the 'Air Quality Sampling Manual' as published from time to time by the administering authority.
- (B1-3) Dust or other particulate monitoring must be undertaken as directed by the administering authority to investigate any complaint of dust nuisance being caused by the ERA, which complaint in the opinion of an authorised person is not frivolous, vexatious nor based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. Monitoring must be carried out at a site relevant to the potentially affected sensitive place and at upwind control site(s) and must include:
- (a) for a complaint alleging dust nuisance, dust deposition; and
 - (b) for a complaint alleging adverse health effects caused by dust, the concentration per cubic metre of suspended PM10 over a 24hr averaging time.
- (B1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by dust or other particulate matter from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement abatement measures so that emission of dust or other particulate matter from the ERA does not result in further environmental nuisance.

Odour nuisance

- (B2-1) Subject to condition (B2-2), the release of noxious or offensive odour or any other noxious or offensive airborne contaminant resulting from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (B2-2) Odour monitoring must be undertaken as directed by the administering authority to investigate any complaint of odour nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring.
- (B2-3) If an authorised person's opinion based on monitoring results or otherwise indicates that environmental nuisance is being caused by odour from the ERA, the authority holder must:
- (a) address the complaint including the use of appropriate dispute resolution if required; or
 - (b) immediately implement odour abatement measures so that emission of odour from the ERA does not result in further environmental nuisance.

END OF CONDITIONS FOR SCHEDULE B

Schedule C – Water

Management of Stormwater

- (C1-1) Stormwater runoff from the site must be managed in accordance with the following hierarchy:
- (a) avoidance – eg. prevent the amount of contaminated stormwater generated;
 - (b) reuse – eg. reuse contaminated stormwater;
 - (c) recycle – eg. treat contaminated stormwater for reuse; and
 - (d) disposal – eg. dispose of contaminated stormwater in a way that causes the least environmental harm and in accordance with the conditions of this authority.
- (C1-2) Erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment to any waters outside the site.
- (C1-3) The storage design criteria of any stormwater containment dam must be sufficient to contain the runoff expected from a 1 in 10 year AEP 24 hour rainfall event.

Release to waters

- (C2-1) Stormwater runoff from disturbed areas on the site must only be released to waters outside the site from the release points shown in Schedule 1 and listed in Schedule C – Table 1. Release of stormwater is permitted from the release points if caused by a rainfall event in excess of, or equal to, a 1 in 10 year AEP 24 hour rainfall event, for a period of no longer than 24 hours after cessation of the rainfall event, or otherwise when water is in compliance with the release limits stated in Schedule C - Table 2.

Schedule C - Table 1 (Release points)

Release point	Easting (AMG)	Northing (AMG)
① - ML 1100	496 125	6951 125
② - ML1100	496 500	6950 250
③ - ML4622	483 500	6943 250
④ - ML4622	483 625	6944 125
⑤ - ML1106	496 000	6978 125

Schedule C - Table 2 (Release limits)

Parameter	Units	Minimum	Maximum
pH	-	6.5	8.5
Total Suspended Solids	mg/L	-	50
Conductivity	µs/cm	-	1500

- (C2-2) Contaminants must not be released from the site to any waters or to the bed and banks of any waters outside the site except in accordance with condition (C2-1).

END OF CONDITIONS FOR SCHEDULE C

Schedule D - Noise

Noise nuisance

- (D1-1) Subject to conditions (D1-2) and (D1-3), noise from the ERA must not cause an environmental nuisance at any sensitive place in the opinion of an authorised person.
- (D1-2) Noise monitoring must be undertaken as directed by the administering authority to investigate any complaint of noise nuisance being caused by the ERA, which in the opinion of an authorised person is not frivolous, vexatious or based on mistaken belief, and the results thereof notified to the administering authority within 14 days following completion of monitoring. For the purposes of this condition, noise monitoring must be done in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual* and include:
- $L_{A, \max \text{ adj, T}}$;
 - relevant background sound level;
 - the level and frequency of occurrence of impulsive or tonal noise;
 - atmospheric conditions including wind speed and direction; and
 - location, date and time of recording.
- (D1-3) For the purposes of condition (D1-1), the ERA will not cause environmental nuisance where noise from the ERA does not exceed the limits specified in Schedule D - Table 1.
- (D1-4) If an authorised person's opinion is that monitoring results indicate environmental nuisance is being caused by noise from the ERA, the authority holder must:
- address the complaint including the use of appropriate dispute resolution if required; or
 - immediately implement noise abatement measures so that emissions of noise from the ERA do not result in further environmental nuisance.

Schedule D - Table 1 (Noise limits) *

Noise level dB(A) measured as	Monday to Saturday			Sundays and public holidays		
	7am - 6pm	6pm - 10pm	10pm - 7am	9am - 6pm	6pm - 10pm	10pm - 9am
<i>Noise measured at a 'Noise sensitive place'</i>						
$L_{A, \max \text{ adj, T}}$	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)	Background + 0 dB(A)	Background + 0 dB(A)
<i>Noise measured at a 'Commercial place'</i>						
$L_{A, \max \text{ adj, T}}$	Background + 10 dB(A)	Background + 10 dB(A)	Background + 5 dB(A)	Background + 5 dB(A)	Background + 3 dB(A)	Background + 3 dB(A)

Where "T" is 10 minutes and "Background" means background sound pressure level measured in accordance with the latest edition of the Environmental Protection Agency *Noise Measurement Manual*.

* Schedule D Table 1 does not purport to set operating hours for the ERA.

END OF CONDITIONS FOR SCHEDULE D

Schedule E – Waste

There are no conditions prescribed for this schedule.

END OF CONDITIONS FOR SCHEDULE E

Schedule F – Land

Buffer zones

- (F1-1) There must be no mining activities in the buffer zones shown on Figures 2 and 3 in Schedule I hereof other than for environmental control works (eg. noise bunds), access or provision of services and excepting for abutting mining lease boundaries where the mining leases are held by the holder of this environmental authority.

Rehabilitation landform criteria

- (F2-1) All areas significantly disturbed by mining activities must be rehabilitated in accordance with Schedule F – Table 1.

Rehabilitation outcomes acceptance criteria (Industrial and Residential)

(F3-1) For the purposes of Schedule F – Table 1, significantly disturbed land nominated for an industrial or residential rehabilitation outcome will be considered rehabilitated when the land is stabilised and does not, or will not, have potential to cause environmental harm.

(F3-2) Despite condition (F3-1) and pending approval for surrender of this authority, the use of significantly disturbed land and/or mine voids remaining at the end of mine life for an industrial or residential rehabilitation outcome is subject to the operation of relevant legislation (eg. *Integrated Planning Act 1997*).

(F3-3) Where requisite statutory approval(s) for a final land use and rehabilitation outcome described in Schedule F - Table 1 are not obtained, an alternative rehabilitation outcome must be nominated to the administering authority.

Rehabilitation outcomes acceptance criteria (Rural)

- (F4-1) For the purposes of Schedule F - Table 1, complete an investigation into rehabilitation of significantly disturbed areas nominated for rural rehabilitation outcome and submit a report to the administering authority proposing relevant rehabilitation acceptance criteria by 5 March 2015.
- (F4-2) All relevant areas significantly disturbed by the ERA must be rehabilitated in accordance with the acceptance criteria prescribed in the report required by condition (F4-1) as may be modified by the administering authority. Where no such modification is notified by the administering authority to the authority holder within six months of receipt of the report, then the acceptance criteria prescribed in the report will apply.

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

Tenure ID	Surface Disturbance Area (ha)	Rehabilitation Outcome
ML1100	48.35	Residential
ML50121	0.95	Residential
ML1106	21.48	Rural or Residential
ML1171	12.75	Rural or Residential
ML50183	2.05	Rural or Residential
ML4622	38.60	Industrial (landfill)
ML50116	12.95	Industrial (landfill)
ML50117	10.67	Industrial (landfill)
ML4583	0	Industrial (landfill)

Progressive rehabilitation

- (F5-1) The top layer and sub layers of the soil profile must be removed and stockpiled separately and retained for the purpose of rehabilitation of significantly disturbed areas.
- (F5-2) Commence progressive rehabilitation of significantly disturbed areas as soon as practicable or when:
- (a) the economic potential of the mineral resource in an area has been exhausted;
 - (b) an area is no longer required for the continuation of the mining activities; and
 - (c) an area is of no further beneficial use to the mining operation.

Infrastructure

- (F6-1) All infrastructure for the ERA including water storage structures, must be removed from the site prior to surrender hereof, except where otherwise agreed to in writing by the land owner and Mining Registrar at the relevant time.

NOTE: This condition is not applicable to the landowner also being the environmental authority holder at the relevant time.

END OF CONDITIONS FOR SCHEDULE F

Schedule G – Community

Complaint response

- (G1-1) All complaints received must be recorded including investigations undertaken, conclusions formed and action taken. This information must be made available to the administering authority on request.

END OF CONDITIONS FOR SCHEDULE 1G

Schedule H - Definitions

Definitions

(H1-1) Words and phrases used in this authority are defined in Schedule H – Definitions. Where a definition for a term used in this authority is sought and the term is not defined herein, the definitions in the Environmental Protection Act 1994, regulations made under that Act, Environmental Protection Policies as amended from time to time or ordinary meaning must be used.

Interpretation

"EMOS" means the Environmental Management Overview Strategy report titled "Boral Bricks Pty Ltd Brisbane District Operations Environmental Management Overview Strategy" dated January 2003. Where required, interpretation of this environmental authority should be in the context of the EMOS.

"acceptance criteria" means the standards by which the actions implemented to rehabilitate land are deemed to be complete. The acceptance criteria relate to 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 collembola, 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; and
- vegetation water use and effects on ground water levels and catchment yields.

"AEP" means "annual exceedence probability" in relation to a given rainfall event, is the probability that the given event will be exceeded within a one year period. The AEP is usually expressed as "1 in n" (years) or as a percentage. The *given rainfall event* comprises a stated depth of rainfall received during a stated period: for example, 750 mm in one year, or 95 mm in 24 hours. If the 24-hour rainfall event having an AEP of 5% is, say, 120 mm, this means that for each year there will be 5% chance that the 24-hour rainfall will be 120 mm, or greater. Another way of expressing this is to say the Average Recurrence Interval is 20 years (Note that this does not mean only 1 occurrence in every 20 years, or only 5 occurrences per century).

"administering authority" means the Environmental Protection Agency or its successor.

"annual return" means the return required by the annual notice (under section 316 of the Environment Protection Act, 1994) for an environmental authority.

"approval" means development permit or preliminary approval decision notice or referral agency response under the Integrated Planning Act 1997.

"authorised place" means the place, land or premises authorised under this authority or approval for the carrying out of the specified environmentally relevant activities.

"authority" means level 1 licence, level 1 approval, level 2 approval or environmental authority (mining activities) under the Environmental Protection Act 1994.

"commercial place" means a place used as an office or for business or commercial purposes other than such a place on the land the subject of this environmental authority.

"competent person" means a person with sufficient demonstrated skill, knowledge and qualifications required to carry out a task to a necessary standard for protection of the environment.

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

"disturbed areas" or words to that effect means areas that comprise the active mine area, the process plant and the tailings area.

"dwelling" means any of the following structures or vehicles that is principally used as a place for human habitation-

- a house, unit, motel, nursing home or other building or part of a building;
- a caravan, mobile home or other vehicle or structure on land; and
- a water craft in a marina.

"authority holder" means the person to whom an environmental authority is issued or transferred to, or a person acting under an environmental authority.

"environmental harm" has the meaning given in the *Environmental Protection Act 1994*.

"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.

"intrusive noise" means noise that, because of its frequency, duration, level, tonal characteristics, impulsiveness or vibration -

- is clearly audible to, or can be felt by, an individual; and
- annoys the individual.

In determining whether a noise annoys an individual and is unreasonably intrusive, reference should be made to Australian Standard 1055.2 - 1997 Acoustics - Description and Measurement of Environmental Noise Part 2 - Application to Specific Situations.

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

" $L_{A\ 1, \text{adj}, 10 \text{ mins}}$ " 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.

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

"land" includes waters and the atmosphere.

"mg/L" means milligrams per litre.

"noise sensitive place" means -

- a dwelling, mobile home or caravan park, residential marina or other residential premises;
- a motel, hotel or hostel;
- a kindergarten, school, university or other educational institution;
- a medical centre or hospital;
- a protected area; and
- a park or gardens;

and includes the curtilage of any such place.

"noxious" means harmful or injurious to health or physical well being.

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

"progressive rehabilitation" means rehabilitation (defined below) undertaken progressively or in stages as mining activities or operations are ongoing.

"protected area" means -

- a protected area under the Nature Conservation Act 1992;
- a marine park under the Marine Parks Act 2004; and
- a World Heritage Area.

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

“rehabilitation” means the process of reshaping and revegetating land to restore it to a stable post mining state and in accordance with the acceptance criteria, 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 to different phases of mining activities.

“sensitive place” means;

- a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises excluding accommodation for persons engaged in the mining activities;
- a motel, hotel or hostel;
- an educational institution;
- a medical centre or hospital;
- a public park or gardens (including a protected area); and
- a commercial place;

and includes the curtilage of any such place.

“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.

“significantly disturbed” or words to that effect means -

(a) contaminated land; or

(b) land that has been disturbed and human intervention is needed to rehabilitate it;

(i) including:

- 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 waters where mining project activities occur;
- areas submerged by tailings or hazardous contaminant storage dams in all cases;
- areas under temporary infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be removed after mining has ceased;

or

(ii) not including

- areas off mining 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 administering authority, areas previously significantly disturbed which have not achieved the rehabilitation objectives due to circumstances beyond the control of the authority holder (such as climatic conditions);
- areas under permanent infrastructure eg. roads, tracks, bridges, culverts, dams, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads which is to be lawfully left on the site post authority surrender.
- disturbances that pre-existed the grant of the mining tenure unless those areas are disturbed during the term of the tenure.

“site” means the place or premises to which this authority or approval relates.

“stable” means geotechnical stability of a rehabilitated landform where instability caused by settlement and subsidence has ceased.

"**µs/cm**" means micro semen per centimetre.

"**waters**" includes any watercourse, lake, lagoon, pond, swamp, wetland, bed and bank of any waters, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off or groundwater.

END OF CONDITIONS FOR SCHEDULE H

Published on DES Disclosure Log
RTI Act 2009

Schedule I – Maps / Plans

Figure 1 - Darra



Figure 2 – Redbank Plains

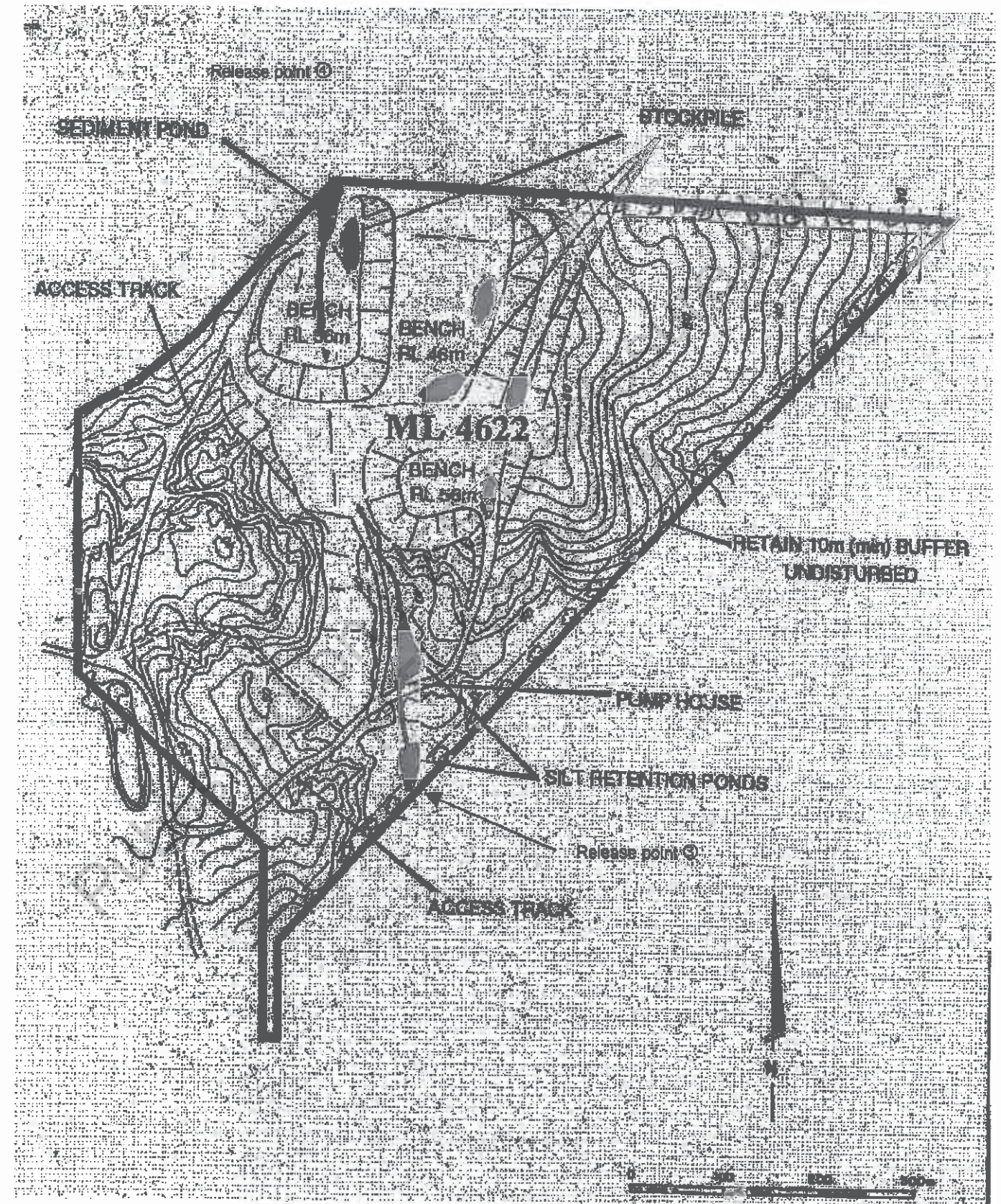


Figure 3 - Strathpine

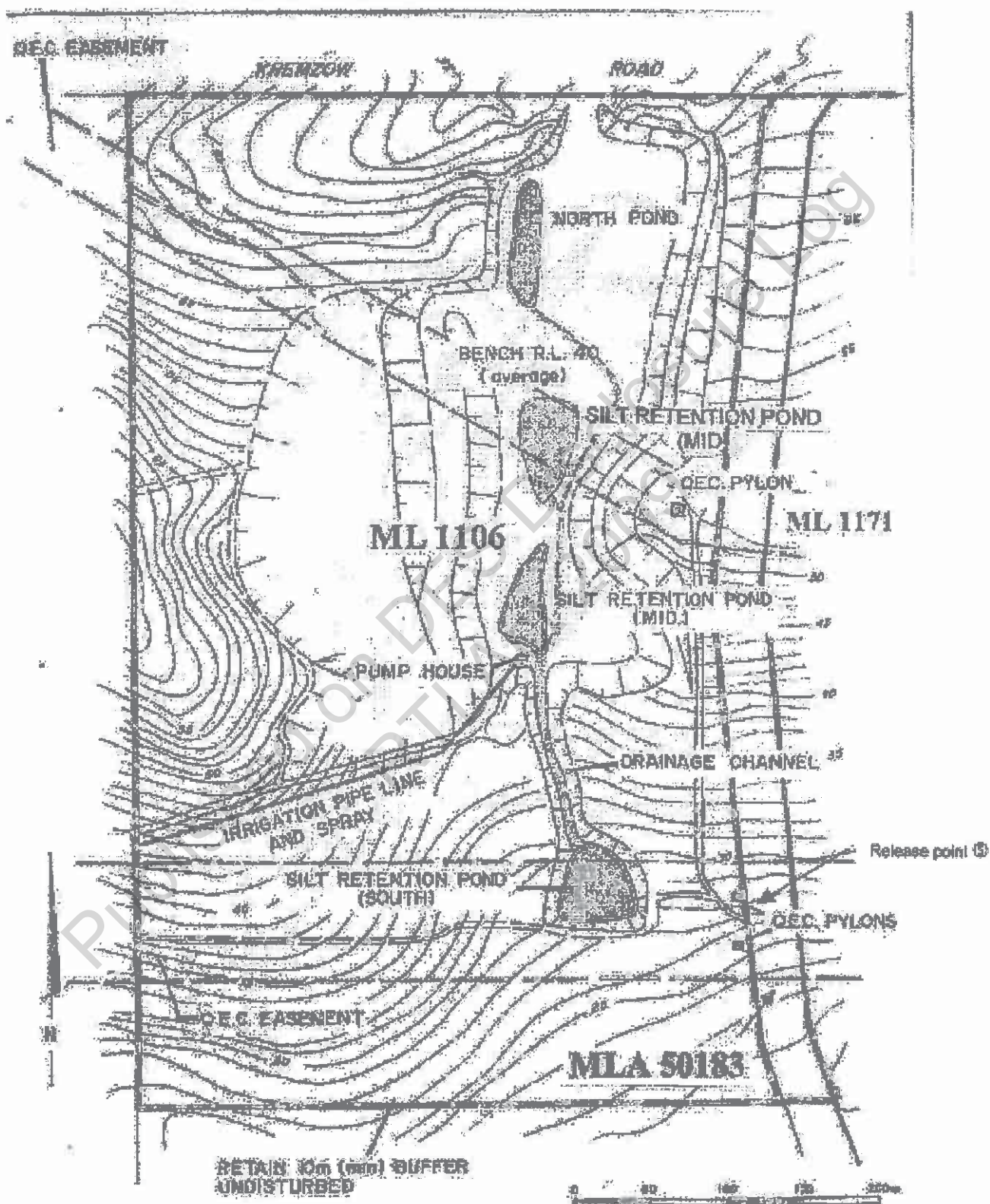
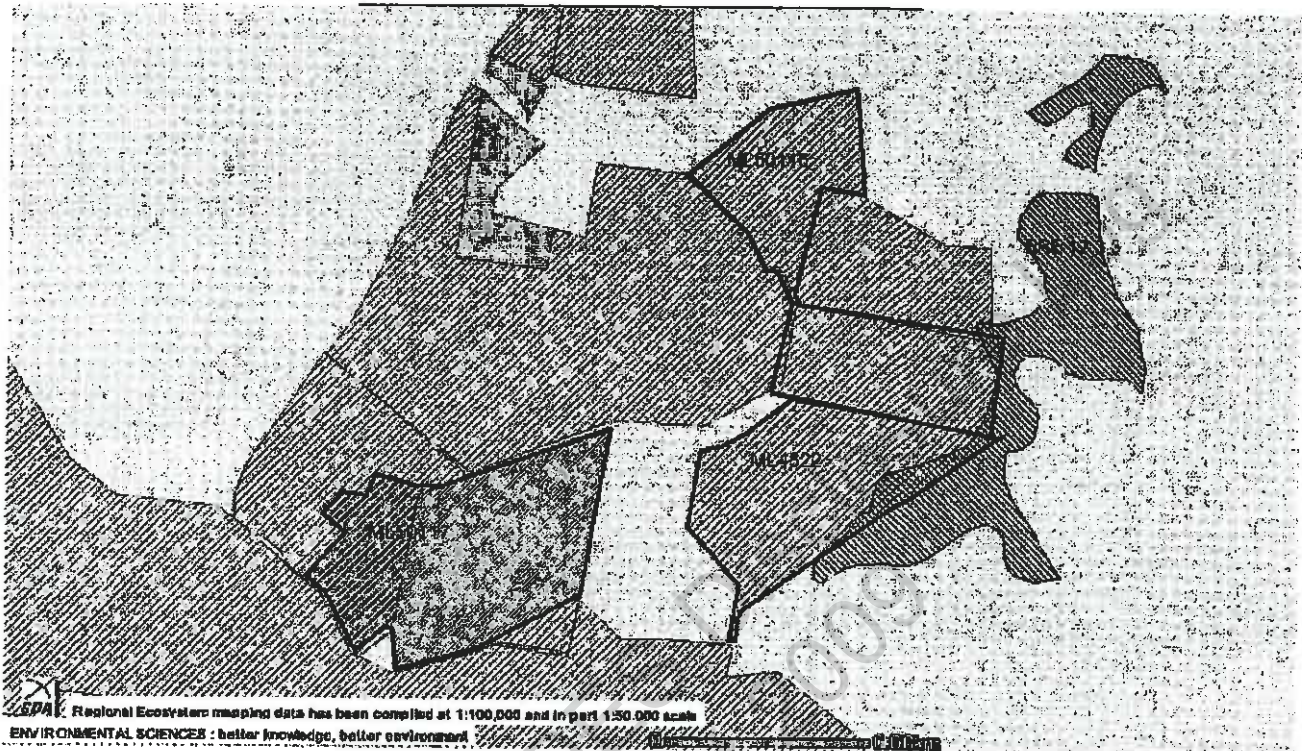


Figure 4— Endangered Regional Ecosystem 12.3.3



END OF CONDITIONS FOR SCHEDULE 1

END OF CONDITIONS
END OF ENVIRONMENTAL AUTHORITY

Notice

Environmental Protection Act 1994

Decision on surrender application

This notice is issued by the administering authority¹ pursuant to section 275 of the Environmental Protection Act 1994 to advise of the decision for a surrender application.

Boral Resources (Qld) Pty Limited
T/A as Boral Bricks (QLD) Limited
Level 3, 40 Mount St
NORTH SYDNEY NSW 2060

Email: [sch4p4\(6\)@pghbricks.com.au](mailto:sch4p4(6)@pghbricks.com.au)
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Cc: Mineral Assessment Hub
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MineralHub@dnrm.qld.gov.au

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Toowong BC QLD 4066

Attention: [sch4p4\(6\)@pghbricks.com.au](mailto:sch4p4(6)@pghbricks.com.au)
Cc: [sch4p4\(6\)@ausrocks.com.au](mailto:sch4p4(6)@ausrocks.com.au)

Your reference: EPML00499213
Our reference: 101/0007907 and 175186

Decision made on the application for the partial surrender of an environmental authority

1. Application details

The application made to partially surrender the environmental authority was received by the administering authority on 21 August 2015 for application reference number EPML00499213. Land description: ML1100; ML1106; ML1158; ML1171; ML4583; ML4622; ML50116; ML50117 and ML50183.

2. Decision

The administering authority has decided to approve the application for the partial surrender of your environmental authority for ML1158.

3. Grounds for the decision

The Trust Company Limited, as the underlying landholders of ML1158, have signed a landowner statement outlining they accept responsibility for all infrastructure and disturbed areas. The administering authority is satisfied Boral Resources (Qld) Pty Limited have no further rehabilitation requirements under section 264 of the *Environmental Protection Act 1994*.

¹ The Department of Environment and Heritage Protection is the administering authority under the *Environmental Protection Act 1994*.

Notice
Decision on surrender application

Should you have any questions in relation to this notice, please contact Karen Dabinett on telephone (07) 4222 5324.

sch4p4(6) Personal information

Signature

26/10/2015

Date

Hamish Butler
Delegate of the administering authority
Environmental Protection Act 1994

Enquiries:
PO Box 7230
CAIRNS QLD 4870
Phone: (07) 4222 5334
Fax: (07) 4222 5070

Attachments

- Permit – Environmental Authority (EPML00499213)