Permit

Environmental Protection Act 1994

Environmental authority EA0002142

This environmental authority is issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994. This approval replaces the previous Environmental Authority dated 30 January 2020.

Environmental authority number: EA0002142

Environmental authority takes effect on 3 March 2021

Environmental authority holder

Name(s)	Registered address
BORAL RESOURCES (QLD) PTY. LIMITED	Level 18 15 Blue St NORTH SYDNEY NSW 2060 Australia

Environmentally relevant activity and location details

Environmentally relevant activities	Location(s)
ERA 16 - Extraction and Screening 2: Extracting, other than by dredging, in a year, the following quantity of material (c) more than 1,000,000t ERA 16 - Extraction and Screening 3: Screening, in a year, the following quantity of material (c) more than 1,000,000t	Lot 1 on RP167435, Lot 139 on SL10320, Lot 53 on RP895391, Lot 93 on SP193378

Additional information for applicants

Environmentally relevant activities

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

An EA authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the EA specifically authorises environmental harm.

A person carrying out an ERA must also be a registered suitable operator under the *Environmental Protection Act 1994* (EP Act).

Queensland Government

Contaminated land

It is a requirement of the EP Act that an owner or occupier of contaminated land give written notice to the administering authority if they become aware of the following:

- the happening of an event involving a hazardous contaminant on the contaminated land (notice must be given within 24 hours); or
- a change in the condition of the contaminated land (notice must be given within 24 hours); or
- a notifiable activity (as defined in Schedule 3) having been carried out, or is being carried out, on the contaminated land (notice must be given within 20 business days);

that is causing, or is reasonably likely to cause, serious or material environmental harm.

For further information, including the form for giving written notice, refer to the Queensland Government website www.qld.gov.au, using the search term 'duty to notify'.

Take effect

Please note that, in accordance with section 200 of the EP Act, an EA has effect:

a) if the authority is for a prescribed ERA and it states that it takes effect on the day nominated by the holder of the authority in a written notice given to the administering authority-on the nominated day; or

b) if the authority states a day or an event for it to take effect-on the stated day or when the stated event happens; or

c) otherwise-on the day the authority is issued.

However, if the EA is authorising an activity that requires an additional authorisation (a relevant tenure for a resource activity, a development permit under the *Planning Act 2016* or an SDA Approval under the *State Development and Public Works Organisation Act 1971*), this EA will not take effect until the additional authorisation has taken effect.

If this EA takes effect when the additional authorisation takes effect, you must provide the administering authority written notice within 5 business days of receiving notification of the related additional authorisation taking effect.

If you have incorrectly claimed that an additional authorisation is not required, carrying out the ERA without the additional authorisation is not legal and could result in your prosecution for providing false or misleading information or operating without a valid environmental authority.

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

Date issued: 13 April 2021

Enquiries:
Energy and Extractive Resources assessment
Department of Environment and Science

Phone: 1300 130 372
Email: palm@des.qld.gov.au

Obligations under the *Environmental Protection Act 1994*

In addition to the requirements found in the conditions of this environmental authority, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the Act:

- general environmental duty (section 319)
- duty to notify environmental harm (section 320-320G)
- offence of causing serious or material environmental harm (sections 437-439)
- offence of causing environmental nuisance (section 440)
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG)
- offence to place contaminant where environmental harm or nuisance may be caused (section 443)

Conditions of environmental authority

Agency interest: General	
Condition number	**Condition**
G1	Activities under this environmental authority must be conducted in accordance with the following limitations: 1. Extraction must only occur within the 'Approved Extraction Limit' provided in Appendix 1, as defined by the coordinates listed in Appendix 2.
G2	All reasonable and practicable measures must be taken to prevent or minimise environmental harm caused by the activities.
G3	Any breach of a condition of this environmental authority must be reported to the administering authority as soon as practicable within 24 hours of becoming aware of the breach. Records must be kept including full details of the breach and any subsequent actions taken.
G4	Other than as permitted by this environmental authority, the release of a contaminant into the environment must not occur.
G5	Environmental monitoring results must be kept for five (5) years. All other information and records that are required by the conditions of this environmental authority must be kept for a minimum of five (5) years. All information and records required by the conditions of this environmental authority must be provided to the administering authority, or nominated delegate upon request**,** within the required timeframe and in the specified format.
G6	An appropriately qualified person(s) must monitor, record and interpret all parameters that are required to be monitored by this environmental authority and in the manner specified by this environmental authority.
G7	All analyses required under this environmental authority must be carried out by a laboratory that has National Association of Testing Authorities (NATA) certification, or an equivalent certification, for such analyses. The only exception to this condition is the *in situ* monitoring of pH and dissolved oxygen.
G8	When required by the administering authority, monitoring must be undertaken in the manner prescribed by the administering authority, to investigate a complaint of environmental nuisance arising from the activity. The monitoring results must be provided within 10 business days to the administering authority upon its request.
G9	The activity must be undertaken in accordance with written procedures that: 1. identify potential risks to the environment from the activity during routine operations, closure and an emergency; and 2. establish and maintain control measures that minimise the potential for environmental harm; and 3. ensure plant, equipment and measures are maintained in a proper and effective condition; and 4. ensure plant, equipment and measures are operated in a proper and effective manner; and 5. ensure that staff are trained and aware of their obligations under the *Environmental Protection*

	Act 1994; and 6. ensure that reviews of environmental performance are undertaken at least annually.
G10	Chemicals and fuels in containers of greater than 15 litres must be stored within a secondary containment system.
G11	Prior to the commencement of the activity, a financial assurance must be provided to the administering authority in accordance with the *Environmental Protection Act 1994.*
G12	The financial assurance for condition G11 must cover the maximum total cost for rehabilitation of significantly disturbed areas for a nominated period (stage), which may vary due to progressive rehabilitation.
G13	If the financial assurance is provided in stages in accordance with condition G12, the works associated with that stage must not commence until the financial assurance has been provided for that stage.
G14	Any visible light released from the licensed place must not, in the opinion of an authorised person, cause an environmental nuisance at or beyond the boundary of the licensed place.
Agency interest: Waste	
Condition number	**Condition**
W1	All waste generated in carrying out the activity must be reused, recycled or removed to a facility that can lawfully accept the waste.
Agency interest: Air	
Condition number	**Condition**
A1	Other than as permitted within this environmental authority, odours or airborne contaminants must not cause environmental nuisance to any sensitive place or commercial place.
A2	Dust and particulate matter emissions must not exceed the following concentrations at any sensitive place or commercial place: a) dust deposition of 120 milligrams per square metre per day, when monitored in accordance with Australian Standard AS 3580.10.1 (or more recent editions), or b) a concentration of particulate matter with an aerodynamic diameter of less than 10 micrometre (µm) (PM10) suspended in the atmosphere of 50 micrograms per cubic metre over a 24 hour averaging time, when monitored in accordance with Australian Standard AS 3580.9.6 (or more recent editions) or any other method approved by the administering authority.
Agency interest: Land	
Condition	**Condition**

number	
L1	Contaminants must not be released to land.
L2	Land that has been disturbed for activities conducted under this environmental authority must be rehabilitated in a manner such that: 1. suitable native species of vegetation for the location are established and sustained for earthen surfaces; and 2. potential for erosion is minimised; and 3. the quality of water released from the site, including seepage, does not cause environmental harm; and 4. potential for environmental nuisance caused by dust is minimised; and 5. the water quality of any residual water body does not have potential to cause environmental harm; and 6. the final landform is stable and protects public safety.
L3	Rehabilitation of disturbed areas required under condition L2 must take place progressively as works are staged and new extraction areas are commenced.
L4	Rehabilitation of the site must be undertaken in accordance with the plan entitled 'Narangba Quarry Rehabilitation Plan', 7139 E 01 DES Offset Area B, dated 28 January 2020 provided in Appendix 3.
L5	A qualified fauna spotter/catcher holding a valid Rehabilitation Permit from the Queensland Parks and Wildlife Service is required to inspect any tree immediately prior to it being felled for the presence of vertebrate fauna. The fauna spotter/catcher is to be present at all times whilst native vegetation is being removed to collect, remove and rehabilitate any native animals that are displaced or injured as a consequence of vegetation clearing activities. (This condition does not include the collection and translocation of koalas. In relation to the management of koalas during clearing refer to legislative requirements set out under the *Nature Conservation (Koala) Plan 2006)*.
Agency interest: Acoustic	
Condition number	**Condition**
N1	Other than as permitted within this environmental authority, noise generated by the activity must not cause environmental nuisance to any sensitive place or commercial place.
N2	Quarrying, including drilling, blasting, movement of extracted material and overburden, construction and all other quarrying activities (excluding quarry access and sales and dispatch of quarry product), is to be limited to the hours of 7:00am to 6:00pm Monday to Friday and 7:00am to 12:00pm on Saturdays. Access for quarry and sales and dispatch for quarry products is to be strictly limited to the hours between 6:00am to 6:00pm Monday to Friday inclusive and 6:00 to 2:00pm Saturday. None of these activities are to occur on Sundays and Public Holidays unless otherwise approved in writing by the administering authority.
N3	Noise from the activity must not exceed the levels identified in *Table - Noise limits* when measured in accordance with the associated monitoring requirements.

Table - Noise limits

Noise level dB(A)	Monday to Friday				Saturday					Sunday and Public Holidays*	All other times
	6am-7am**	7am-6pm	6pm-10pm	10pm-6am	6am-7am**	7am-12pm	12pm-2pm**	2pm-10pm	10pm-6am	8am-6pm	
	Noise measured at a 'Noise sensitive place' in dB(A)										
$L_{Aeq\ adj,\ 1hour}$	43	45	35	30	43	45	43	35	30	40	Not audible.
	Noise measured at a 'Commercial place' in dB(A)										
$L_{Aeq\ adj,\ 1hour}$	48	50	40	35	48	50	48	40	35	45	Not audible.

*__Emergency maintenance__ only

** Sales including Loading and Dispatch, Maintenance and Prestart Checks only.

Associated monitoring requirements

1. All monitoring devices must be calibrated and maintained according to the manufacturer's instruction manual.
2. Any monitoring must be in accordance with the most recent version of the administering authority's *Noise Measurement Manual*.
3. Any monitoring of noise emissions from the activity must be undertaken when the activity is in operation.

N4

When required by the administering authority, noise monitoring must be undertaken in accordance with the associated monitoring requirements of *Table - Noise Limits*, and the results notified within 14 days to the administering authority. Monitoring must include:

1. $L_{Aeq,\ adj,\ T}$
2. Background noise (Background) as $L_{A\ 90,\ adj,\ T}$
3. $MaxL_{pA,T}$
4. the level and frequency of occurrence of any impulsive or tonal noise
5. atmospheric conditions including wind speed and direction
6. effects due to extraneous factors such as traffic noise
7. recording of location, date and time of measurements.

N5

Blasting activities must not exceed the limits for peak particle velocity and air blast overpressure in *Table – Blasting noise limits* when measured at any sensitive place in accordance with the associated monitoring requirements.

Table - Blasting noise limits

Blasting criteria	Blasting limits
Airblast overpressure	115 dB (Linear) Peak for 9 out of 10 consecutive blasts initiated and not greater than 120 dB (Linear) Peak at any time.
Ground vibration peak particle velocity	5 mm/s peak particle velocity for 9 out of 10 consecutive blasts initiated and not greater than 10 mm/s at any time.

	Associated monitoring requirements 1. Monitoring must be performed in accordance with the most recent edition of the administering authority's *Noise and Vibration from Blasting guideline* and *Noise Measurement Manual* and any relevant *Australian Standard*. 2. All monitoring devices must be calibrated and maintained according to the manufacturer's instruction manual.
N6	Blasting must be carried out in accordance with the current edition of the administering authority's *Noise and vibration from blasting guideline* and with *Australian Standard 2187*.
N7	Unless prior approval is obtained from the administering authority: 1. blasting is only permitted during the hours of 9 am to 4 pm Monday to Friday, and from 9 am to 1 pm on Saturdays. 2. blasting is not permitted at any time on Sundays or public holidays.
N8	When required by the administering authority, a blast monitoring program must be developed and implemented to monitor compliance with *Table - Blasting noise limits* at any sensitive place.

Agency interest: Water

Condition number	Condition
WA1	The only contaminants to be released to surface waters are treated stormwater runoff to waters described as Burpengary and Browns creek in accordance with *Table - Surface water release limits* and the associated monitoring requirements.

Table - Surface water release limits

Monitoring locations and Release Point(s) Description (GDA94 decimal degrees)		**Quality characteristic** (units)	**Minimum Limit**	**Maximum Limit**	**Monitoring Frequency**
Latitude	**Longitude**				
W1: - 27.1724	W1: 152.8853	pH (range)	6.5	8.5	Weekly during surface discharges from the site
W2: - 27.1707	W2: 152.8833	Total Suspended Solids (mg/L)	-	50	
W3: - 27.1766	W3: 152.8852	Dissolved Oxygen (mg/L)	4	-	

	Associated monitoring requirements 1. Monitoring location and release points must be situated and maintained in accordance with the figure provided in Appendix 4 - Water Discharge/Monitoring Locations. 2. Monitoring must be in accordance with the methods prescribed in the current edition of the administering authority's *Monitoring and Sampling Manual.* 3. Water and sediment samples must be representative of the general condition of the water body or sediments. 4. All determinations must employ analytical practical quantification limits of sufficient sensitivity to enable comparisons to be made against water quality objectives/triggers/limits relevant to the particular water or sediment quality characteristic. 5. Monitoring must be undertaken during a release and at the frequency stated. 6. All monitoring devices must be calibrated and maintained according to the manufacturer's instruction manual.
WA2	The release to waters permitted under WA1 must not contain any other properties at a concentration capable of causing environmental harm.
WA3	The release to waters permitted under WA1 must not produce any slick or other visible evidence of oil or grease, scum, litter or other visually objectionable matter.
WA4	Erosion protection measures and sediment control measures must be implemented and maintained to minimise erosion and the release of sediment to stormwater and waters at all times.
WA5	Where practicable, stormwater that is not contaminated by the activity must be diverted away from areas where it may become contaminated by the activity. Stormwater that is contaminated by the activity must be directed to a treatment system.
WA6	Prior to any future extraction below RL150 as shown in Appendix 5 a Groundwater Impact Assessment and Monitoring Program must be prepared. The Groundwater Impact Assessment and Monitoring Program must include: (a) Identification of environmental values for groundwater and groundwater dependent ecosystems; Identification of environmental objectives/limits (quantity and quality) for groundwater to protect environmental values; Details and maps on the extent and depth of extraction with the saturated zone; (b) Determination of the groundwater interconnection with water on the site and Burpengary Creek and Browns Creek waters; (c) Assessment of the impact on groundwaters and environmental values resulting from extraction activities, utilising an acceptable 3D groundwater modelling program; (d) Mitigation measures to be implemented to prevent impact on groundwaters and protect the environmental values of groundwaters; and (e) Groundwater monitoring program to detect any impacts on groundwaters and adjoining waters including Burpengary Creek and Browns Creek.
WA7	Upon completion of the Groundwater Impact Assessment and Monitoring Program referred to in condition WA6, it must be submitted to the administering authority for its review and comment.

WA8	After the administering authority has provided comment on the Groundwater Impact Assessment and Monitoring Program, the holder of this authority must have due regard to any comments made by the administering authority, and must implement the program.

Definitions

Key terms and/or phrases in this environmental authority are defined in this section. Where a term is not defined, the definition in the *Environmental Protection Act 1994*, its regulations or environmental protection policies must be used. If a word remains undefined it has its ordinary meaning.

Activity means the environmentally relevant activities, whether resource activities or prescribed activities, to which the environmental authority relates.

Administering authority means the Department of Environment and Science or its successor or predecessors.

Airblast overpressure is the energy transmitted from the blast site within the atmosphere in the form of pressure waves. As these waves pass a given position, the pressure of the air rises very rapidly then falls more slowly then returns to the ambient value after a number of oscillations. The pressure wave consists of both audible (noise) and inaudible (concussion) energy. The maximum excess pressure in this wave is known as the peak air overpressure, generally measured in decibels using the linear frequency-weighting.

Appropriately qualified person(s) means a person or persons who has professional qualifications, training, skills or experience relevant to the EA requirement and can give authoritative assessment, advice and analysis in relation to the EA requirements using the relevant protocols, standards, methods or literature.

Background means noise, measured in the absence of the noise under investigation, as $\mathbf{L_{A\ 90,\ adj,\ T}}$ being the A-weighted sound pressure level exceeded for 90 per cent of the time period of not less than 15 minutes, using Fast response.

Blasting is the use of explosives to fracture:

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

Commercial place means a place used as a workplace, an office or for business or commercial purposes and includes a place within the curtilage of such a place reasonably used by persons at that place.

Disturbed areas includes areas:

1. that are susceptible to erosion;
2. that are contaminated by the activity; and/or
3. upon which stockpiles of soil or other materials are located.

Environmental nuisance as defined in Chapter 1 of the *Environmental Protection Act 1994*.

Environmental value –

- a quality or physical characteristic of the environment that is conducive to ecological health or public amenity or safety; or
- another quality of the environment identified and declared to be an environmental value under an environmental protection policy or regulation.

Ground vibration refers to ground vibration from blasting which is the radiation of mechanical energy within a rock mass or soil.

Groundwater means water that occurs naturally in, or is introduced artificially into, an aquifer.

Land means any land, whether above or below the ordinary high-water mark at spring tides (i.e. includes tidal land).

$\mathbf{L_{Aeq,\ adj,\ T}}$ means the adjusted A weighted equivalent continuous sound pressure level measured on fast response, adjusted for tonality and impulsiveness, during the time period T, where T is measured for a period no less than 15 minutes when the activity is causing a steady state noise, and no shorter than one hour when the approved activity is causing an intermittent noise.

$\mathbf{L_{A\ 90,\ adj,\ T}}$ means the A-weighted sound pressure level, obtained using time-weighting 'F', that is exceeded for 90% of the measuring period (T).

$Max_{LpA,T}$ means the maximum A-weighted sound pressure level measured over a time period T of not less than 15 minutes, using Fast response.

Measures has the broadest interpretation and includes:

- Procedural measures such as standard operating procedures for dredging operations, environmental risk assessment, management actions, departmental direction and competency expectations under relevant guidelines
- Physical measures such as plant, equipment, physical objects (such as bunding, containment systems etc.), ecosystem monitoring and bathymetric surveys.

mg/L means milligrams per litre.

NATA means National Association of Testing Authorities.

Nominated delegate means another government agency that provides services to the administering authority.

Records include breach notifications, written procedures, analysis results, monitoring reports and monitoring programs required under a condition of this authority.

Release of a contaminant into the environment means to:

1. deposit, discharge, emit or disturb the contaminant
2. cause or allow the contaminant to be deposited, discharged, emitted or disturbed
3. fail to prevent the contaminant from being deposited, discharged emitted or disturbed
4. allow the contaminant to escape
5. fail to prevent the contaminant from escaping.

Rehabilitation means the process of reshaping and revegetation land to restore it to a stable post mining or quarry state and in accordance with acceptance criteria or rehabilitation conditions, 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 or mining/quarrying activities.

Secondary containment system means a system designed, installed and operated to prevent any release of contaminants from the system, or containers within the system, to land, groundwater, or surface waters.

Sensitive place includes the following and includes a place within the curtilage of such a place reasonably used by persons at that place:

1. a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or
2. a motel, hotel or hostel; or
3. a kindergarten, school, university or other educational institution; or
4. a medical centre or hospital; or
5. a protected area under the *Nature Conservation Act 1992*, the *Marine Parks Act 2004* or a World Heritage Area; or
6. a public park or garden; or
7. for noise, a place defined as a sensitive receptor for the purposes of the Environmental Protection (Noise) Policy 2019.

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

Stormwater that is not contaminated by the activity includes stormwater runoff from external or undisturbed catchments.

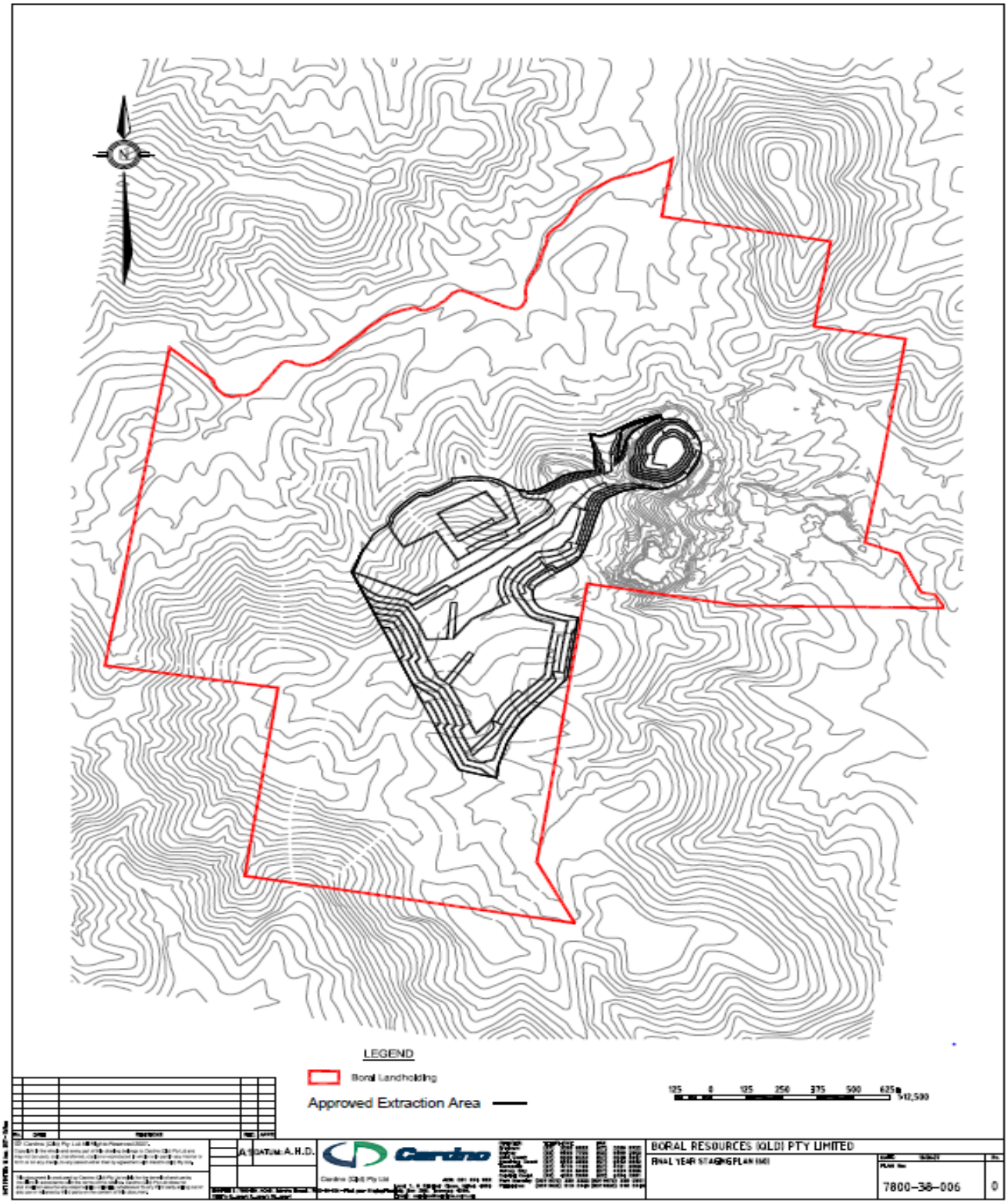
Vibration is the oscillating or periodic motion of a particle, group of particles, or solid object about its equilibrium position.

Waters includes river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined

water, natural or artificial watercourse, bed and bank of any waters, dams, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and groundwater and any part thereof.

Works or **operation** means the activity approved under this environmental authority.

Appendix 1 - Approved Extraction Limit



Appendix 2 – GPS Co-ordinates of approved extraction areas

Latitude	Longitude	Latitude	Longitude	Latitude	Longitude	Latitude	Longitude
Column 1		**Column 2**		**Column 3**		**Column 4**	
-27.1770	152.8669	-27.1759	152.8679	-27.1752	152.8693	-27.1748	152.8707
-27.1770	152.8669	-27.1759	152.8679	-27.1752	152.8694	-27.1748	152.8708
-27.1769	152.8670	-27.1758	152.8680	-27.1751	152.8694	-27.1748	152.8709
-27.1769	152.8670	-27.1757	152.8681	-27.1751	152.8695	-27.1748	152.8710
-27.1769	152.8670	-27.1757	152.8681	-27.1751	152.8696	-27.1748	152.8711
-27.1768	152.8671	-27.1757	152.8681	-27.1750	152.8696	-27.1748	152.8711
-27.1768	152.8671	-27.1756	152.8682	-27.1750	152.8697	-27.1748	152.8712
-27.1767	152.8672	-27.1756	152.8682	-27.1749	152.8697	-27.1749	152.8712
-27.1767	152.8673	-27.1756	152.8683	-27.1749	152.8697	-27.1749	152.8713
-27.1766	152.8674	-27.1755	152.8683	-27.1748	152.8697	-27.1749	152.8714
-27.1766	152.8674	-27.1755	152.8684	-27.1748	152.8697	-27.1749	152.8715
-27.1766	152.8675	-27.1754	152.8685	-27.1748	152.8698	-27.1750	152.8715
-27.1765	152.8675	-27.1754	152.8685	-27.1748	152.8698	-27.1750	152.8716
-27.1764	152.8675	-27.1754	152.8686	-27.1748	152.8699	-27.1750	152.8716
-27.1763	152.8675	-27.1754	152.8686	-27.1748	152.8700	-27.1751	152.8716
-27.1763	152.8676	-27.1754	152.8687	-27.1748	152.8700	-27.1751	152.8717
-27.1762	152.8676	-27.1754	152.8688	-27.1748	152.8701	-27.1751	152.8718
-27.1762	152.8676	-27.1754	152.8689	-27.1748	152.8702	-27.1751	152.8718
-27.1761	152.8676	-27.1754	152.8689	-27.1748	152.8702	-27.1752	152.8718
-27.1761	152.8677	-27.1753	152.8690	-27.1748	152.8703	-27.1752	152.8719
-27.1761	152.8677	-27.1753	152.8691	-27.1748	152.8704	-27.1752	152.8720
-27.1760	152.8678	-27.1753	152.8691	-27.1748	152.8704	-27.1752	152.8720
-27.1760	152.8678	-27.1752	152.8692	-27.1748	152.8705	-27.1753	152.8720
-27.1759	152.8678	-27.1752	152.8692	-27.1748	152.8706	-27.1753	152.8721
Latitude	**Longitude**	**Latitude**	**Longitude**	**Latitude**	**Longitude**	**Latitude**	**Longitude**
Column 5		**Column 6**		**Column 7**		**Column 8**	

-27.1753	152.8721	-27.1747	152.8737	-27.1741	152.8748	-27.1728	152.8761
-27.1753	152.8722	-27.1747	152.8738	-27.1740	152.8748	-27.1727	152.8762
-27.1753	152.8723	-27.1747	152.8738	-27.1740	152.8748	-27.1727	152.8762
-27.1753	152.8723	-27.1747	152.8739	-27.1738	152.8748	-27.1727	152.8763
-27.1753	152.8724	-27.1747	152.8739	-27.1737	152.8747	-27.1727	152.8764
-27.1753	152.8724	-27.1747	152.8740	-27.1736	152.8747	-27.1726	152.8765
-27.1753	152.8725	-27.1746	152.8741	-27.1735	152.8747	-27.1726	152.8766
-27.1753	152.8726	-27.1746	152.8742	-27.1734	152.8747	-27.1726	152.8766
-27.1753	152.8727	-27.1746	152.8743	-27.1734	152.8746	-27.1726	152.8767
-27.1753	152.8727	-27.1746	152.8744	-27.1732	152.8746	-27.1726	152.8767
-27.1753	152.8728	-27.1746	152.8745	-27.1732	152.8747	-27.1726	152.8767
-27.1752	152.8728	-27.1746	152.8746	-27.1732	152.8748	-27.1726	152.8768
-27.1752	152.8729	-27.1746	152.8747	-27.1733	152.8749	-27.1725	152.8769
-27.1752	152.8729	-27.1745	152.8748	-27.1733	152.8750	-27.1725	152.8770
-27.1751	152.8730	-27.1745	152.8748	-27.1732	152.8751	-27.1725	152.8770
-27.1751	152.8731	-27.1744	152.8748	-27.1732	152.8753	-27.1725	152.8771
-27.1751	152.8731	-27.1744	152.8748	-27.1731	152.8754	-27.1725	152.8771
-27.1750	152.8732	-27.1743	152.8748	-27.1731	152.8755	-27.1726	152.8771
-27.1750	152.8733	-27.1743	152.8748	-27.1730	152.8756	-27.1727	152.8772
-27.1749	152.8733	-27.1743	152.8748	-27.1730	152.8757	-27.1727	152.8772
-27.1749	152.8734	-27.1743	152.8748	-27.1729	152.8758	-27.1726	152.8773
-27.1748	152.8735	-27.1742	152.8748	-27.1729	152.8759	-27.1726	152.8773
-27.1748	152.8736	-27.1742	152.8748	-27.1728	152.8760	-27.1726	152.8774
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-27.1727	152.8778	-27.1737	152.8785	-27.1748	152.8780	-27.1752	152.8766
-27.1727	152.8779	-27.1737	152.8785	-27.1748	152.8780	-27.1752	152.8765
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-27.1729	152.8781	-27.1740	152.8785	-27.1750	152.8777	-27.1753	152.8759
-27.1729	152.8781	-27.1740	152.8785	-27.1750	152.8777	-27.1753	152.8758
-27.1730	152.8782	-27.1741	152.8785	-27.1750	152.8777	-27.1753	152.8757
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-27.1734	152.8784	-27.1745	152.8783	-27.1752	152.8772	-27.1757	152.8750

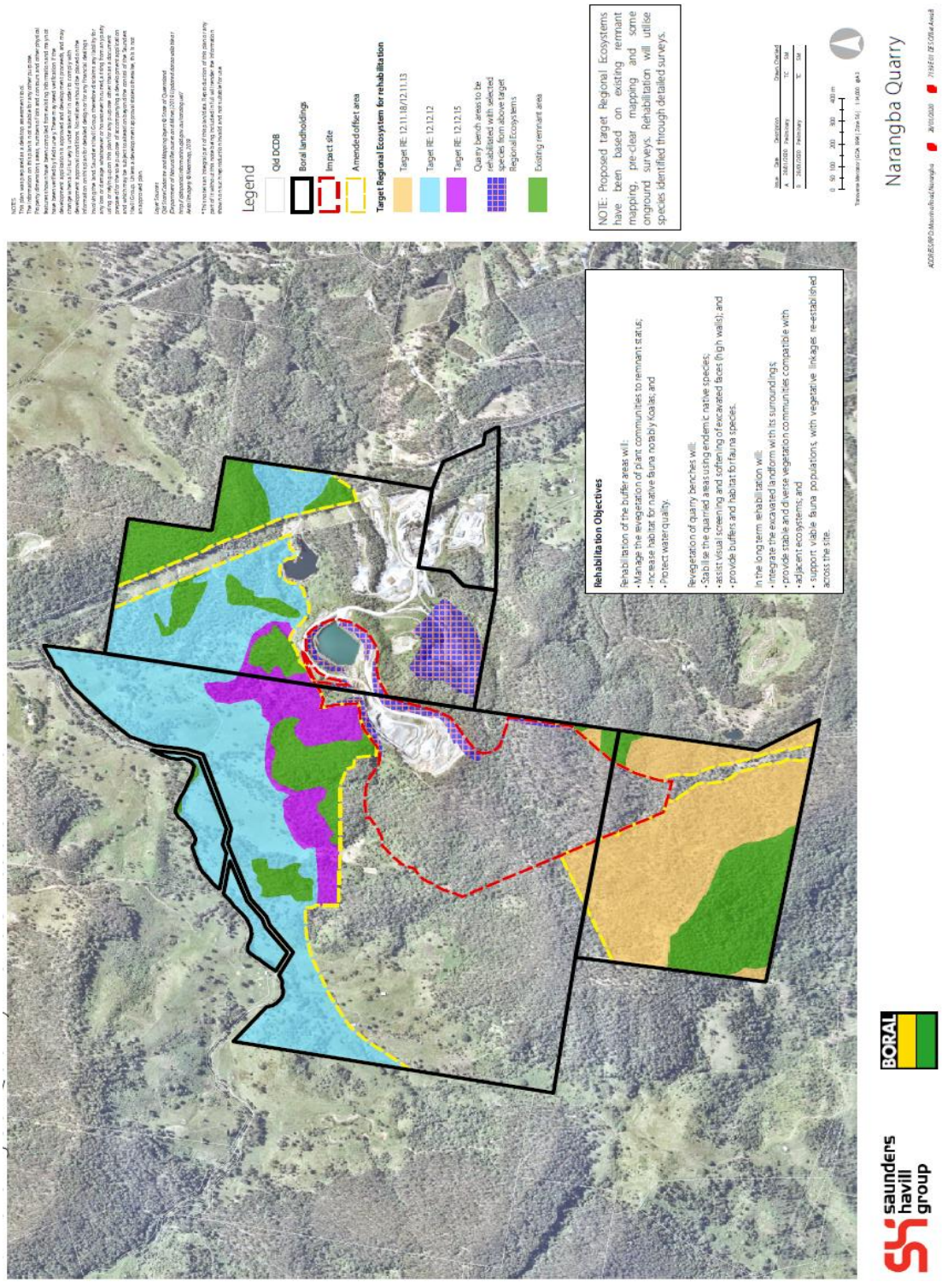
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-27.1764	152.8748	-27.1780	152.8740	-27.1793	152.8726	-27.1802	152.8742
-27.1765	152.8748	-27.1781	152.8739	-27.1793	152.8726	-27.1803	152.8741
-27.1766	152.8747	-27.1781	152.8739	-27.1794	152.8726	-27.1803	152.8741
-27.1766	152.8747	-27.1782	152.8738	-27.1795	152.8727	-27.1804	152.8741
-27.1767	152.8747	-27.1782	152.8737	-27.1796	152.8728	-27.1804	152.8741
-27.1768	152.8747	-27.1782	152.8737	-27.1797	152.8728	-27.1805	152.8741
-27.1769	152.8746	-27.1783	152.8736	-27.1797	152.8729	-27.1806	152.8741
-27.1769	152.8746	-27.1783	152.8735	-27.1798	152.8730	-27.1806	152.8741
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-27.1771	152.8745	-27.1784	152.8733	-27.1798	152.8733	-27.1809	152.8740
-27.1772	152.8745	-27.1785	152.8732	-27.1799	152.8734	-27.1809	152.8740
-27.1773	152.8745	-27.1785	152.8732	-27.1799	152.8734	-27.1810	152.8740
-27.1774	152.8745	-27.1786	152.8731	-27.1799	152.8735	-27.1811	152.8740
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Latitude	Longitude	Latitude	Longitude	Latitude	Longitude	Latitude	Longitude
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-27.1817	152.8739	-27.1831	152.8730	-27.1845	152.8718	-27.1860	152.8711
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-27.1819	152.8739	-27.1831	152.8729	-27.1846	152.8717	-27.1860	152.8710
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-27.1821	152.8738	-27.1833	152.8728	-27.1849	152.8716	-27.1859	152.8706
-27.1822	152.8738	-27.1833	152.8727	-27.1850	152.8716	-27.1859	152.8705
-27.1823	152.8738	-27.1834	152.8727	-27.1851	152.8715	-27.1858	152.8704
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-27.1827	152.8734	-27.1839	152.8722	-27.1857	152.8713	-27.1854	152.8698
-27.1827	152.8734	-27.1840	152.8721	-27.1857	152.8713	-27.1853	152.8697

Latitude	Longitude	Latitude	Longitude	Latitude	Longitude	Latitude	Longitude
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-27.1851	152.8696	-27.1832	152.8687	-27.1813	152.8677	-27.1796	152.8668
-27.1850	152.8696	-27.1832	152.8686	-27.1813	152.8677	-27.1795	152.8668
-27.1849	152.8695	-27.1831	152.8686	-27.1812	152.8676	-27.1794	152.8667
-27.1848	152.8695	-27.1830	152.8686	-27.1811	152.8676	-27.1793	152.8667
-27.1848	152.8695	-27.1830	152.8685	-27.1811	152.8676	-27.1792	152.8666
-27.1847	152.8694	-27.1829	152.8685	-27.1810	152.8676	-27.1792	152.8666
-27.1846	152.8694	-27.1828	152.8685	-27.1809	152.8675	-27.1791	152.8666
-27.1845	152.8693	-27.1827	152.8684	-27.1809	152.8675	-27.1790	152.8665
-27.1844	152.8693	-27.1826	152.8684	-27.1808	152.8674	-27.1789	152.8665
-27.1843	152.8692	-27.1826	152.8683	-27.1807	152.8674	-27.1788	152.8664
-27.1843	152.8692	-27.1825	152.8683	-27.1807	152.8674	-27.1788	152.8664
-27.1842	152.8692	-27.1824	152.8683	-27.1806	152.8673	-27.1787	152.8664
-27.1842	152.8692	-27.1823	152.8682	-27.1805	152.8673	-27.1786	152.8663
-27.1841	152.8691	-27.1822	152.8682	-27.1805	152.8673	-27.1785	152.8663
-27.1840	152.8691	-27.1822	152.8681	-27.1804	152.8672	-27.1784	152.8662
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-27.1838	152.8690	-27.1819	152.8680	-27.1801	152.8671	-27.1782	152.8663
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-27.1836	152.8689	-27.1818	152.8679	-27.1800	152.8670	-27.1781	152.8663
-27.1835	152.8688	-27.1817	152.8679	-27.1799	152.8670	-27.1780	152.8664
-27.1835	152.8688	-27.1816	152.8678	-27.1798	152.8669	-27.1779	152.8664

Latitude	Longitude	Latitude	Longitude	Latitude	Longitude	Latitude	Longitude
Column 25		Column 26		Column 27		Column 28	
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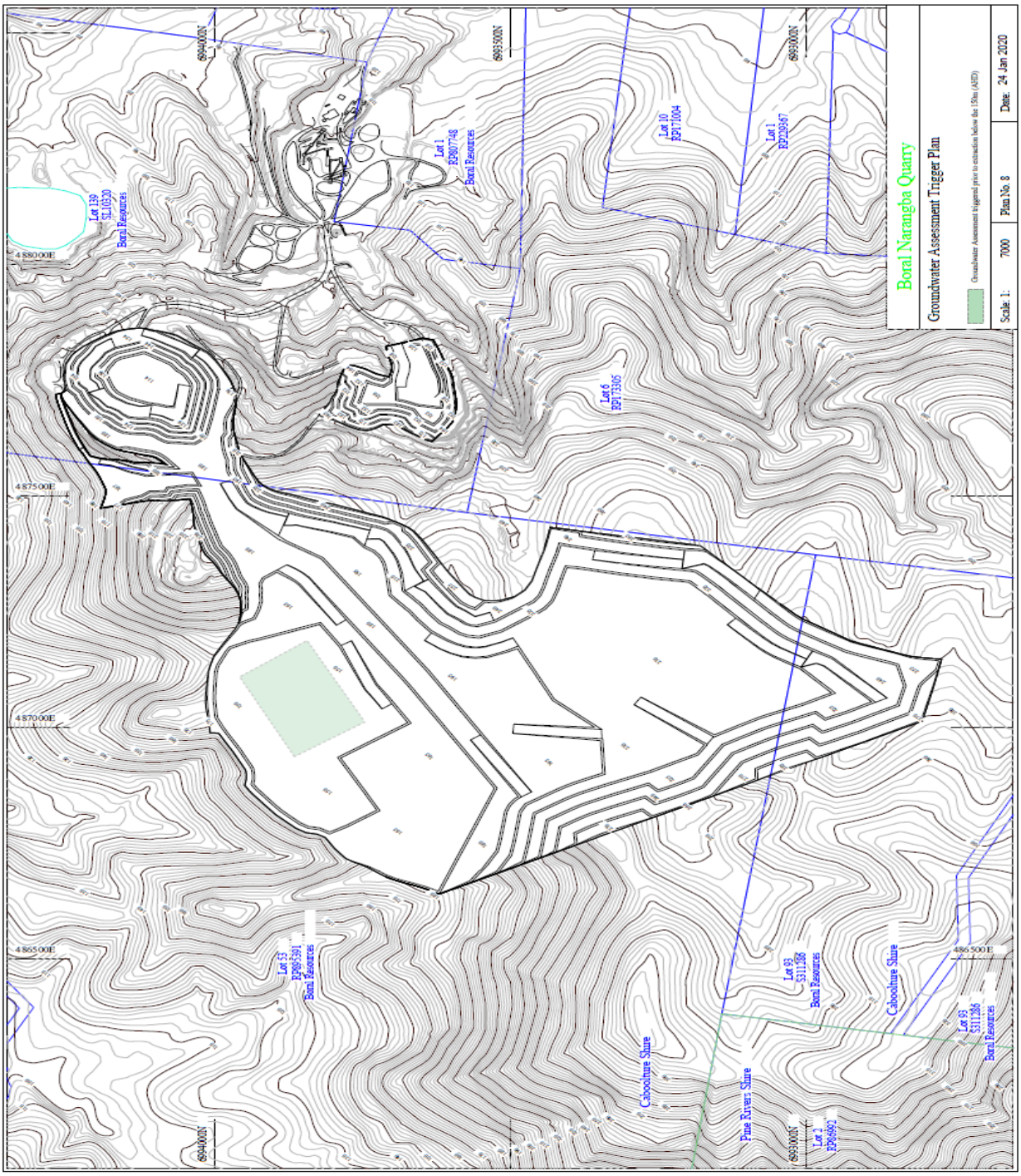
Appendix 3 – Narangba Quarry Rehabilitation Plan, 7139 E 01 DES Offset Area B, dated 28/01/2020



Appendix 4 – Water Discharge/Monitoring Locations



Appendix 5 – Groundwater Assessment Trigger Plan showing RL150



END OF

ENVIRONMENTAL AUTHORITY