



Currabubula Quarry

Environmental Monitoring Report

March 2019

Published: March 2019



Currabubula Quarry Environmental Monitoring Report

This monitoring report is to satisfy the requirements of Section 66 (6) of the Protection of the Environment and Operations Act 1997, to make available, within 14 days of obtaining any monitoring data that relates to pollution under an Environment Protection Licence.

The monitoring of pollutants provided in this report is undertaken as per the requirements of Environment Protection Licence 5846 (EPL 5846 – Boral Currabubula Quarry)

This report provides environmental monitoring data for Currabubula Quarry for the period February 2016 to March 2019.

| Currabubula Quarry Information | |
|--------------------------------|---|
| Premise Details | Boral – Currabubula Quarry |
| Address | Werris Creek Rd, Currabubula NSW 2342 |
| Licensee | Boral Resources (Country) Pty Ltd |
| EPL No | 5846 |
| EPL Location | http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=83771&SYSUID=1&LICID=5846 |

Monitoring data in this report relates to the monitoring undertaken for the following environmental pollutants:

- Blasting,
- Surface Water.

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Blasting

Blast monitoring is conducted as per condition L6.2 of EPL 5846. The blasting monitoring results are summarised below.

Sample Period: March 2019
Licensee: Currabubula Quarry
Licensee Address: Werris Creek Rd, Currabubula NSW 2342
EPL No: 5846

Qualifications related to blasting:

L4.1 The overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time and at any point within 30 metres of any non-project related residential building or other noise sensitive location. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.

L4.2 The overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) for more than five per cent of the total number of blasts over each reporting period at any time and at any point within 30 metres of any non-project related residential building or other noise sensitive location. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.

L4.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time and at any point within 3.5 metres of any non-project related residential building or other noise sensitive location. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.

L4.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec for more than five per cent of the total number of blasts over each reporting period at any point within 3.5 metres of any non-project related residential building or other noise sensitive location. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.

L4.6 Blasting in or on the premises must only be carried out between 0900 hours and 1500 hours, Monday to Friday, and 0900 hours and 1400 hours on Saturday. Blasting in or on the premises must not take place on Sundays or Public Holidays without the prior approval of the EPA.

L4.8 Blasting at the premises is limited to 1 blast on each day on which blasting is permitted.

| Results – Monitoring Location (A), shown on Page 6 of this report. | | | | | | |
|---|-------------|------------------------------|--------------------------------|---------------------|----------------------------|---------------------|
| Blast Date | Time | Date Results Received | Ground Vibration Result | GV Compliant | Overpressure Result | OP Compliant |
| | | | | | | |

The blast monitoring results for the current reporting periods are within the acceptable criteria. The historical blast monitoring data dating back to June 2016 is included in the table below.

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| Historical Results – Monitoring Location (A), shown on Page 6 of this report. | | | | | | |
|--|-------------|------------------------------|--------------------------------|---------------------|----------------------------|---------------------|
| Blast Date | Time | Date Results Received | Ground Vibration Result | GV Compliant | Overpressure Result | OP Compliant |
| 15/2/2019 | 9:00 | 15/2/2019 | No Trigger | Yes | No Trigger | Yes |
| 8/8/2018 | 21:55 | 8/8/2018 | 1.08 mm/s | Yes | 97.16 | Yes |
| 1/5/2018 | 09:50 | 2/5/2018 | 1.195 mm/s | Yes | 84.04 dBL | Yes |
| 21/11/2017 | 09:44 | 21/11/2017 | 1.01mm/s | Yes | 96.98dBL | Yes |
| 12/04/2017 | 09:42 | 13/04/2017 | 1.222 mm/s | Yes | 81.94 dBL | Yes |
| 16/08/2016 | 13:12 | 17/08/2016 | No Trigger | Yes | No Trigger | Yes |
| 08/08/2017 | 09:31 | 08/08/2017 | No Trigger | Yes | No Trigger | Yes |
| 21/06/2016 | 10:59 | 22/06/2016 | No Trigger | Yes | No Trigger | Yes |

Surface Water

Surface water monitoring is conducted as per condition M2.1 of EPL 5846. The surface water monitoring results are summaries below.

Sample Period: March 2019
 Licensee: Currabubula Quarry
 Licensee Address: Werris Creek Rd, Currabubula NSW 2342
 EPL No: 5846

Qualifications related to Surface Water

L2.4 Water and/or Land Concentration Limits

POINT 1

| Pollutant | Units of Measure | 50 Percentile concentration limit | 90 Percentile concentration limit | 3DGM concentration limit | 100 percentile concentration limit |
|------------------------|-------------------------|--|--|---------------------------------|---|
| Oil and Grease | milligrams per litre | | | | 10 |
| pH | pH | | | | 6.5-8.5 |
| Total suspended solids | milligrams per litre | | | | 50 |

L2.5 The Total Suspended Solids concentration limits specified in table L2.4 can be exceeded for water discharged from the sediment basins provided that:

- (a) the discharge occurs solely as a result of rainfall measured at the premises that exceeds 39.2 millimetres over any consecutive 5 day period immediately prior to the discharge occurring; and
- (b) all practical measures have been implemented to dewater all sediment dams within 5 days of rainfall such that they have sufficient capacity to store run off from a 39.2 millimetre, 5 day rainfall event.

Note: 39.2 mm equates to the 5 day 90th percentile rainfall depth for Tamworth sourced from Table 6.3a Managing Urban Stormwater: Soils and Construction Volume 1: 4th edition, November 2004.

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Monitoring Frequency - as soon as practicable after overflow commences and in any case not more than 12 hours after any overflow commencing and prior to any controlled discharge from the sedimentation basins to demonstrate compliance with the concentration limits defined in condition L2.

| Results – Point 1 (Outlet of Dam 1 – West of Stockpile Area) | | | | | | | |
|---|-------------------------|----------------------|----------------------|--------------------------------|------------------------------------|--------------------------------------|--|
| Sampling Date | Results Received | pH (pH Units) | pH Compliant? | Oil & Grease (mg/L) | Oil & Grease Compliant? | Total Suspended Solids (mg/L) | Total Suspended Solids Compliant? |
| None | None | - | - | - | - | - | - |

No surface water discharge occurred during the reporting period and therefore no sampling was conducted.

| Historical Results – Point 1 (Outlet of Dam 1 – West of Stockpile Area) | | | | | | | |
|--|-------------------------|----------------|----------------------|--------------------------------|------------------------------------|--------------------------------------|--|
| Sampling Date | Results Received | pH (pH) | pH Compliant? | Oil & Grease (mg/L) | Oil & Grease Compliant? | Total Suspended Solids (mg/L) | Total Suspended Solids Compliant? |
| 1/11/2016 | 8/11/2016 | 7.4 | Yes | <5 | Yes | 10 | Yes |
| 23/9/2016 | 5/10/2016 | 6.8 | Yes | <5 | Yes | 5 | Yes |
| 15/9/2016 | 22/9/2016 | 7.7 | Yes | <5 | Yes | 136 | Yes* |
| 7/9/2016 | 14/9/2016 | 7.2 | Yes | <5 | Yes | 22 | Yes |
| 5/9/2016 | 9/9/2016 | 7.2 | Yes | <5 | Yes | 105 | Yes* |
| 25/08/2016 | 29/08/2016 | 7.84 | Yes | <5.0 | Yes | 150 | Yes* * |
| 1/08/2016 | 03/08/2014 | 7.00 | Yes | 0.8 | Yes | 13 | Yes |
| 15/07/2016 | 01/08/2016 | 7.1 | Yes | 1.0 | Yes | 49 | Yes |
| 11/07/2016 | 9/08/2016 | 6.9 | Yes | <5.0 | Yes | 31 | Yes |
| 06/06/2016 | 28/06/2016 | 6.3 | Yes*** | 1.0 | Yes | 87.0 | Yes*** |

*The samples collected on 5/9/2016 and 15/9/2016 was after 42mm and 64mm of rain respectively in the five days prior to sampling, on both occasions the dam was overflowing.

**The sample collected on 25/08/2016 was completed after 50mm rain in the last 5 days before it overflowed.

*** There was 75mm of rainfall measured in the onsite rain gauge in the five days immediately prior to discharge from Monitoring Point 1 on the 6/6/2016.

Currabubula Quarry Monitoring Locations.

Blast Monitoring Location



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Surface Water Monitoring Location

