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Environmental Monitoring Report – Blast Monitoring Data Surface Water Monitoring Data

Byrock Quarry

March 2024

Date Published: 2nd April 2024

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 21022 (EPL 21022 – Boral Byrock Quarry)

This report provides environmental monitoring data for Byrock Quarry for the period August 2016 to present day. If there is a gap in data presented in the report this is because there was no monitoring data to present for the relevant period.

Byrock Quarry Information	
Premise Details	Boral – Byrock Quarry
Address	Cobar St, Byrock NSW 2831
Licensee	Boral Resources (Country) Pty Ltd
EPL No	21022
EPL Location	https://apps.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=159518&SYSUID=1&LICID=21022
Date of dataset update	2/04/2024

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

- Blasting
- Surface Water

Blasting

Blast monitoring is conducted as per condition L5 of EPL 21022

**Qualifications related to blasting:
Extracted from EPL: 21022**

L5.1 The air blast overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time at any noise sensitive locations. 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.

L5.2 The air blast overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. 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.

L5.3 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time at any noise sensitive locations. 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.

L5.4 Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec at any noise sensitive locations for more than five per cent of the total number of blasts over each reporting period. 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.

Note: 1. The air blast overpressure and ground vibration levels in conditions L5.1 to L5.4 do not apply at noise sensitive locations that are owned by the licensee or are subject to a private agreement, relating to air blast overpressure and ground vibration levels, between the licensee and the landowner. 2. "Noise sensitive locations" includes buildings used as a residence, hospital, school, child care centres, places of worship and nursing homes. A noise sensitive location includes the land within 30m of the building.

L5.5 Blasting operations on the premises must only take place: (i) between 9am and 4pm Monday to Saturday inclusive; and (ii) at other times as approved by the EPA.

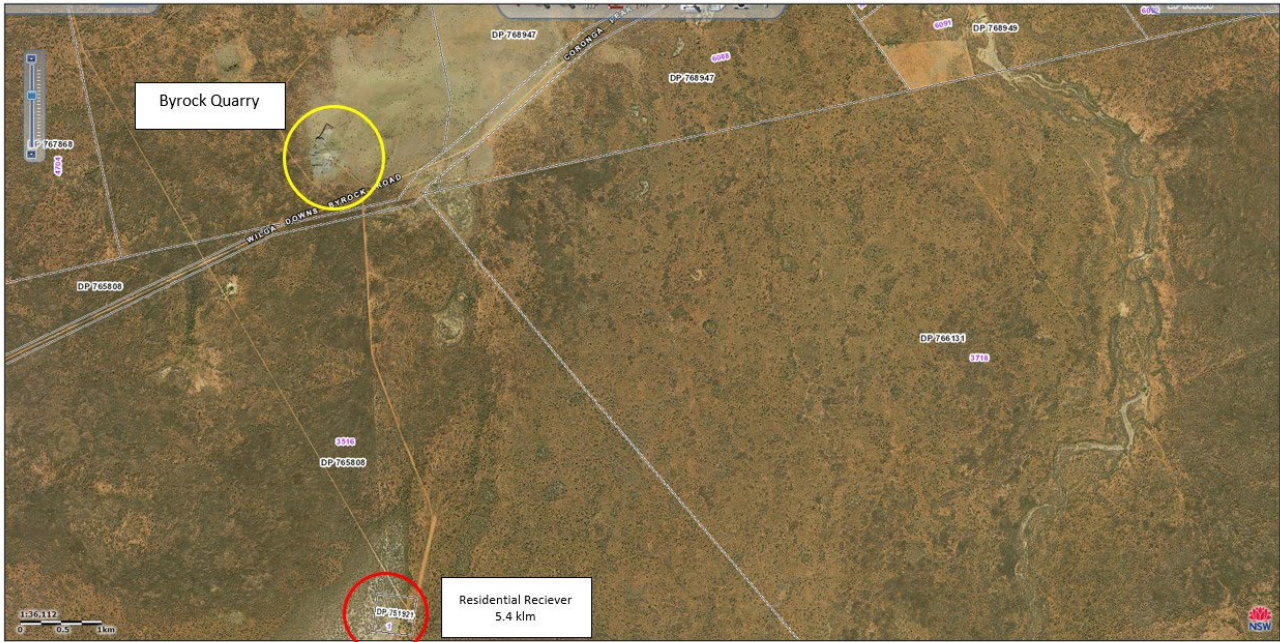
L5.6 Blasting at the premises is limited to 1 blast each day on which blasting is permitted.

* NOTE: Where no data has been published for a particular date there has been no blasting activity undertaken for that date^{3,7,8}

Blast Monitoring Results

EPA ID (Shot Number)	Monitoring Frequency	Date Sampled	Date Results Obtained	Date Results Published	Time of Blast	Blast Results		Trigger Level (dB)	Trigger Level (mm/s)	Most affected residence	Sample Compliant ? (YES/NO)	Comments
						Over Pressure (dB)	Peak Vibration (mm/s)	Over Pressure (dB)	Peak Vibration (mm/s)			
						115	5					
						120	10					
No blasts from 21/3/2023 to 15/01/2024												
BYR-2024-01	Per Blast	29/2/2024	29/2/2024	2/4/2024	11:54	<100	<0.5	115	5	Residential receiver (5.4kms)	YES	
PBT-2024-01	Per Blast	28/2/2024	28/2/2023	2/4/2024	16:49	104.3	<0.5	115	5	Residential receiver (5.4kms)	YES	
BYR-2023-01	Per Blast	20/3/2023	28/2/2024	30/3/2023	14:29	107.1	0.8	115	5	Residential receiver (5.4kms)	YES	
BYR-2022-03	Per Blast	2/8/2022	2/8/2022	13/3/2023	9:32	111.8	0.8	115	5	Residential receiver (5.4kms)	YES	
BYR-2022-01/02	Per Blast	3/5/2022	3/5/2022	20/7/2022	14:06	114	0.3	115	5	Residential receiver (5.4kms)	YES	
BYR-2020-02	Per Blast	1/7/2020	1/7/2020		10:39	108.8	0.51	115	5	Residential receiver (5.4kms)	YES	
BYR-2020-01	Per Blast	30/6/2020	30/6/2020		15:33	101	0.51	115	5	Residential receiver (5.4kms)	YES	
BYR-2019-01	Per Blast	29/7/2019	31/7/2019		10:41	<115	0.51	115	5	Residential receiver (5.4kms)	YES	
BYR-2018-03	Per Blast	27/11/2018	27/11/2018		10:43	113	0.64	115	5	Residential receiver (5.4kms)	YES	
BYR-2018-02	Per Blast	4/7/2018	4/7/2018		10:00	No trigger	No trigger	115	5	Residential receiver (5.4kms)	YES	
BYR-2018-01	Per Blast	28/2/2018	28/2/2018		11:00	No trigger	No trigger	115	5	Residential receiver (5.4kms)	YES	
BYR-2017-02	Per Blast	27/6/2017	27/6/2017		15:32	No trigger	No trigger	115	5	Residential receiver (5.4kms)	YES	
BYR-2017-01	Per Blast	21/2/2017	21/2/2017		13:00	No trigger	No trigger	115	5	Residential receiver (5.4kms)	YES	
BYR- 2016-02	Per Blast	29/8/2016	29/8/2016		13:00	No trigger	No trigger	115	5	Residential receiver (5.4kms)	YES	

Byrock Quarry- Blast Monitoring Location



Source: Six Maps

Blast Monitoring Results - Corrections Log

Details of corrections made to published data due to incorrect or misleading data^{3.7.7}

Date of data (sample date)	Old published data	Correct updated data	Reason for Update/Correction	Update Person	Date corrected data published	Comments

Surface Water Monitoring

Surface water monitoring is conducted as per condition L1.1 of EPL 21022. The surface water monitoring results are summaries below.

Qualifications related to Surface Water Extracted from EPL:21022

P1.2 The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

Water and land

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
2	Discharge to waters; water quality monitoring	Discharge to waters; water quality monitoring	Sediment dam as indicated on figure "Byrock Quarry - Sediment Dam Location and Water Flows 2018" received by the EPA 4/12/2018 (DOC19/18463)

L2 Water and/or Land Concentration Limits

L2.1 For each monitoring/discharge point or utilisation area specified in the table(s) below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.

L2.2 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.

L2.3 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table(s).

L2.4 Water and/or Land Concentration Limits

POINT 2

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
TSS	milligrams per litre				50

L2.5 The limits specified under Condition L2.4 for the sediment pond identified as EPA licence discharge point 2 do not apply when the discharge occurs solely as a result of a rainfall event measured at the premises which exceeds;

- a total of 44.5 millimetres of rainfall over any consecutive 5 day period.

Note: A 44.5 mm rainfall depth is defined by the publication Managing Urban Stormwater: Soils and Construction (Landcom 2004) as the rainfall depth in millimetres for a 95th percentile 5 day rainfall event for the Northwestern, Southwestern and Far West Plains (Bourke) consistent with the storage capacity (recommended minimum design criteria) for Type D sediment retention basins for mines and quarries (Vol 2E of Landcom 2004).

L2.6 The concentration limit for total suspended solids stipulated by condition L2.4 for EPA identification point 2 is deemed not to have been breached where:

- a) the water discharged is covered by condition L2.5; or
- b) when not covered by condition L2.5, the water discharged (in accordance with licence conditions O4.1 and O4.2) is within the pH range 6.5-8.5 and has a turbidity of no more than 40 NTU at the time of the discharge; and
- c) the EPA is advised within 3 working days of the completion of the sample testing and analysis as required by condition M2.2 of any results above the licence limit.

Note: The purpose of condition L2.6 is to expediate the assessment and subsequent discharge of the clarified water from the stormwater control structures (sediment ponds).

Date	EPL ID 2 Sediment dam					
	TSS	Trigger level (mg/l)	pH	Trigger level	O&G	Trigger level (mg/l)
		50		6.5-8.5		10
No water samples taken from August 2016 till 2nd April 2024						

Byrock Quarry- water Monitoring Location



Water Monitoring Results - Corrections Log

Details of corrections made to published data due to incorrect or misleading data^{3.7.7}

Date of data (sample date)	Old published data	Correct updated data	Reason for Update/Correction	Update Person	Date corrected data published	Comments