



Johns River Quarry

Environmental Monitoring Report

December 2019

Published: December 2019



Johns River 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 4812 (EPL 4812 – Boral Johns River Quarry)

Johns River Quarry Information	
Premise Details	Boral – Johns River Quarry
Address	Bulleys Rd, Johns River, NSW 2443
Licensee	Boral Resources (Country) Pty Ltd
EPL No	4812
EPL Location	http://www.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=89225&SYSUID=1&LICID=4812

This report provides environmental monitoring data in this report relates to the monitoring undertaken in December 2019 for Johns River Quarry for the following environmental pollutants:

- Blasting, and
- Deposited Dust, and
- Surface Water.

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Blast Monitoring

Blast monitoring is conducted as per condition M7.1 of EPL 4812. The blasting monitoring results are summarised below.

Sample Period: December 2019
Licensee: Johns River Quarry
Licensee Address: Bulleys Rd, Johns River NSW 2443
EPL No: 4812

Qualifications related to blasting:

L5.1 Blasting operations at the premises only take place between 9:00am and 3:00 pm Monday to Friday and 9:00am and 1:30 pm Saturday. Where compelling safety reasons exist, the Environment Protection Authority December permit a blast to occur outside the abovementioned hours. Prior written notification of any such blast must be made to the Environment Protection Authority at hunter.region@epa.nsw.gov.au.

L5.3 The overpressure level from blasting operations carried out in or on the premises must not:

- a) exceed 115 dB(L) for more than 5% of the total number of blasts carried out on the premises within the 12 months annual reporting period; and
 - b) exceed 120 dB(L) at any time
- at any residence or noise sensitive location (such as a school or hospital) that is not owned by the licensee or subject of a private agreement between the owner of the residence or noise sensitive location and the licensee as to an alternative overpressure level.

L5.4 The ground vibration peak particle velocity from blasting operations carried out in or on the premises must not:

- a) exceed 5mm/second for more than 5% of the total number of blasts carried out on the premises within the 12 months annual reporting period; and
 - b) exceed 10mm/second at any time
- at any residence or noise sensitive location (such as a school or hospital) that is not owned by the licensee or subject of a private agreement between the owner of the residence or noise sensitive location and the licensee as to an alternative ground vibration level.

L5.5 Offensive blast fume must not be emitted from the premises.

Definition: Offensive blast fume means post-blast gases from the detonation of explosives at the premises that by reason of their nature, duration, character or quality, or the time at which they are emitted, or any other circumstances:

- a) are harmful to (or are likely to be harmful to) a person that is outside the premises from which it is emitted, or
- b) interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premise from which it is emitted.

Blast Monitoring Results								
Monitor Location	Shot NO:	Blast Date	Results Received	Time	Ground Vibration Result	GV Compliant	Overpressure Result	OP Compliant

No Blasting in December

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Blasting results December 2019

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Deposited Dust Monitoring

Deposited dust monitoring is conducted as per condition M2.2 of EPL 4812. The deposited dust monitoring results are summarised below.

Sample Period: December 2019
 Licensee: Johns River Quarry
 Licensee Address: Bulleys Rd, Johns River NSW 2443
 EPL No: 4812

Qualifications related to Deposited Dust:

P1 Location of monitoring/discharge points and areas

P1.1 The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.

<i>Air</i>			
EPA identification no.	Type of Monitoring Point	Type of Discharge Point	Location Description
18	Ambient Air Monitoring		Monitor "Dust Point 1(Bulley Top Paddock)" located at coordinates -31.715331 152.691702 as shown on plan titled "Johns River Quarry - Dust Monitoring Locations" dated October 2017. EPA reference DOC17/477947-01.
20	Ambient Air Monitoring		Monitor "Dust Point 2"(Bulley Flat Paddock)" located at coordinates -31.71948178 152.700485 as shown on plan titled "Johns River Quarry - Dust Monitoring Locations" dated October 2017. EPA reference DOC17/477947-01.
21	Ambient Air Monitoring		Monitor "Dust Point 3 (Jones Property)" located at coordinates -31.7158934 152.707463 as shown on plan titled "Johns River Quarry - Dust Monitoring Locations" dated October 2017. EPA reference DOC17/477947-01.
22	Ambient Air Monitoring		Monitor "Dust Point 4 (Bawn Property)" located at coordinates -31.71030485 152.7029657 as shown on plan titled "Johns River Quarry - Dust Monitoring Locations" dated October 2017. EPA reference DOC17/477947-01.

M2.2 Air Monitoring Requirements

POINT 18,20,21,22

Pollutant	Units of Measure	Frequency	Sampling Method
Particulates – Deposited Matter	grams per square metre per month	Monthly	AM-19

Note: No limits apply to deposited dust monitoring as it is monitoring for the purposes of ambient air quality.

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Results

Location	Monitoring Frequency	Pollutant	Measurement	Unit
Monitoring Point 18 Bulley's Top Paddock	Monthly	Insoluble Solids	1.42	g/m ² /month
		Ash	1.10	g/m ² /month
		Soluble Matter	2.11	g/m ² /month
		Total Solid Particles	3.54	g/m ² /month
Monitoring Point 20 Bulley's Flat Paddock	Monthly	Insoluble Solids	4.68	g/m ² /month
		Ash	2.63	g/m ² /month
		Soluble Matter	6.24	g/m ² /month
		Total Solid Particles	10.92	g/m ² /month
Monitoring Point 21 Jones Property	Monthly	Insoluble Solids	1.83	g/m ² /month
		Ash	1.34	g/m ² /month
		Soluble Matter	2.16	g/m ² /month
		Total Solid Particles	3.99	g/m ² /month
Monitoring Point 22 Bawn Property	Monthly	Insoluble Solids	1.53	g/m ² /month
		Ash	1.13	g/m ² /month
		Soluble Matter	1.61	g/m ² /month
		Total Solid Particles	3.14	g/m ² /month

NOTE: December 2019 farming activities in the Bulleys Flat Paddock during December (Slashing)

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Surface Water Monitoring

Water quality monitoring is conducted as per condition M2.1 of EPL 4812. The water quality results for the reporting period are tabled below.

Sample Period: December 2019
 Licensee: Johns River Quarry
 Licensee Address: Bulleys Rd, Johns River NSW 2443
 EPL No: 4812

Qualifications related to Water

M2.2 Water and/or Land Monitoring Requirements

POINT 1,2,3,23

Pollutant	Units of measure	Frequency	Sampling Method
Oil and Grease	Visible	Special Frequency 1	Inspection
pH	pH	Special Frequency 1	Probe
Total suspended solids	milligrams per litre	Special Frequency 1	Grab sample

POINT 4,5

Pollutant	Units of measure	Frequency	Sampling Method
Oil and Grease	Visible	Special Frequency 2	Visual Inspection
pH	pH	Special Frequency 2	Probe
Turbidity	nephelometric turbidity units	Special Frequency 2	Probe

Note: For the purpose of the above table Special frequency 1 means:

- a) prior to any controlled discharge; and
- b) daily during any discharge

For the purpose of the above table Special frequency 2 means at a minimum quarterly at a time when discharges are occurring from Points 2 and/or 3

L2.4 Water and/or Land Concentration Limits (In force as of 22/11/2017)

POINT 1,2,3,23

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				5 &/or none visible
pH	pH				6.5 - 8.5
Total suspended solids	milligrams per litre				50

Note: Points 4 & 5 are Ambient Water Quality Monitoring Points only, hence no limits apply.

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Surface Water Monitoring (Continued)

Results – Point 1 (Discharge from the Western Sediment Pond)				
Sampling Date	Results Received	pH	Total Suspended Solids (mg/L)	Oil & Grease (Visible?)
-	-	-	-	-

Results – Point 2 (Discharge from Basin 2C to diversion drain)				
Sampling Date	Results Received	pH	Total Suspended Solids (mg/L)	Oil & Grease (Visible?)
-	-	-	-	-

Results – Point 3 (Discharge from sediment pond to Stewarts River)				
Sampling Date	Results Received	pH	Total Suspended Solids (mg/L)	Oil & Grease (Visible?)

Results – Point 4 (Ambient Water Quality Monitoring – Bulleys Road Bridge)				
Sampling Date	Results Received	pH	Oil & Grease (Visible?)	Turbidity (NTU's)
-	-	-	-	-

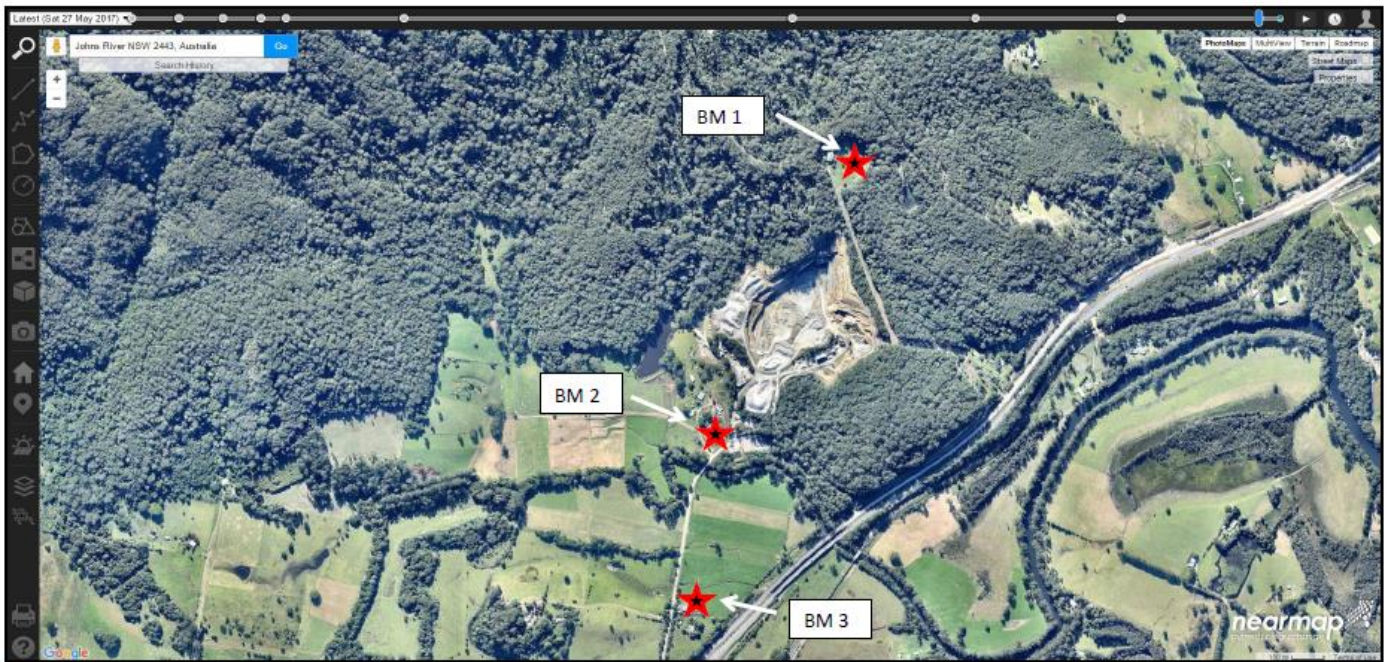
Results – Point 5 (Ambient Water Quality Monitoring – Pacific Highway Bridge)				
Sampling Date	Results Received	pH	Oil & Grease (Visible?)	Turbidity (NTU's)
-	-	-	-	-

Results – Point 23 (Discharge Water Quality Monitoring – Quarry Drop Cut to diversion drain)				
Sampling Date	Results Received	pH	Total Suspended Solids (mg/L)	Oil & Grease (Visible?)
	-	-	-	-

NOTE: All water monitoring in the month of December 2019, were compliant with Licence conditions
No discharging in December

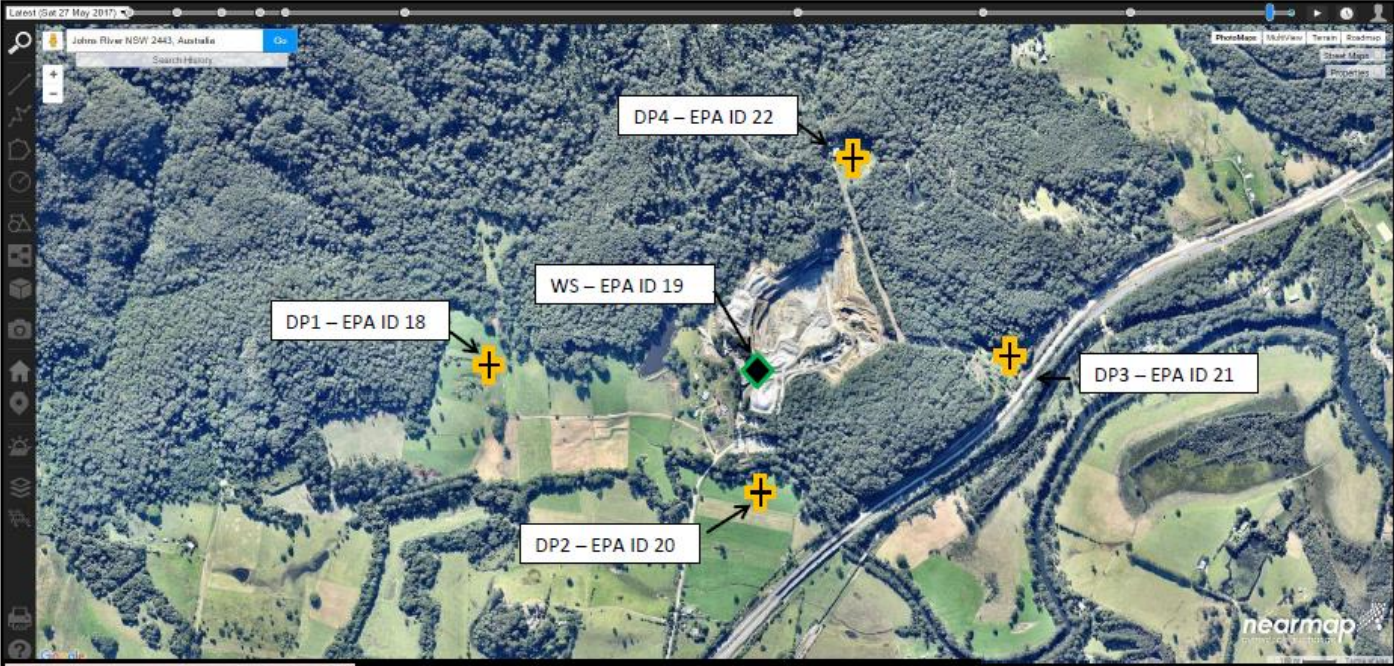
Johns River Quarry Monitoring Locations

Blast Monitoring Location



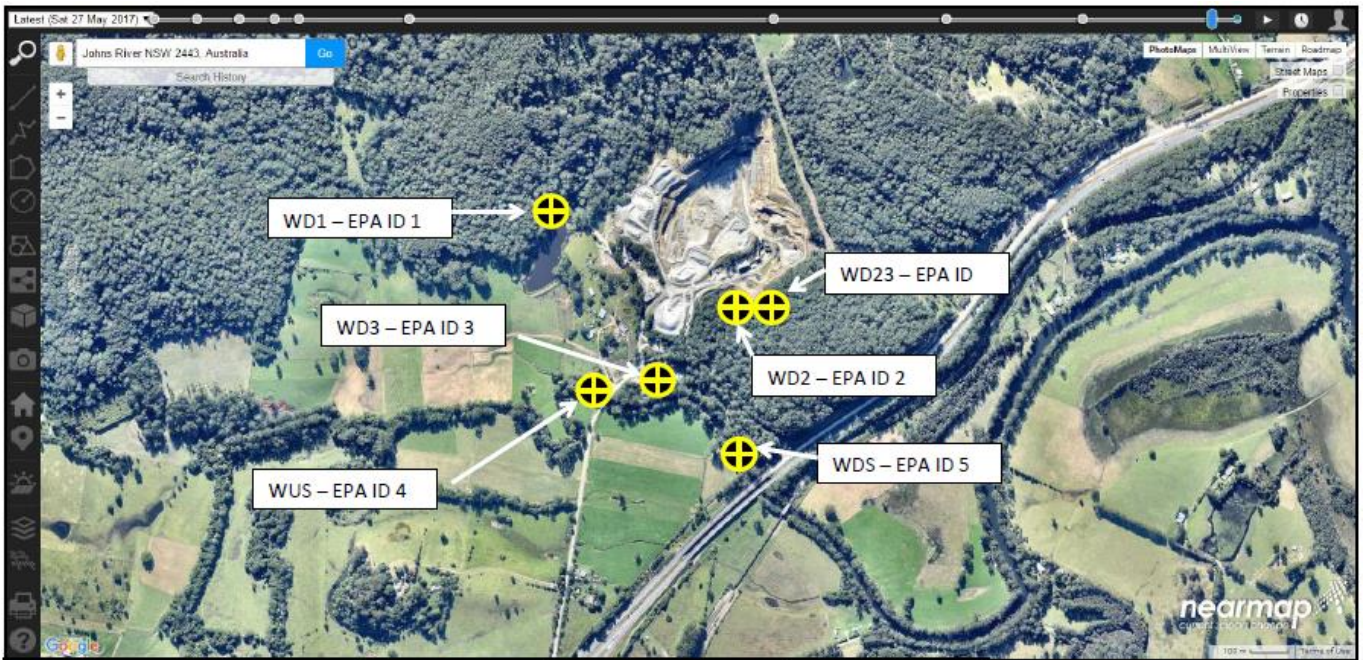
NOTE: Blast Monitor 3 is the Licensed Monitoring Location under EPL 4812.

Deposited Dust Monitoring Locations



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Surface Water Monitoring Locations



Description of water monitoring locations;

EPA ID 1 - Discharge from the Western Sediment Pond.

EPA ID 2 - Discharge from Basin 2C to diversion drain.

EPA ID 3 - Discharge from sediment pond to Stewarts River

EPA ID 4 – Ambient Water Quality Monitoring – Bulleys Road Bridge (Stewarts River)

EPA ID 5 – Ambient Water Quality Monitoring – Pacific Highway Bridge (Stewarts River)

EPA ID 23 – Quarry Drop Cut to diversion drain