

Williamsdale Quarry Information	
<b>Premise Details</b>	Hanson – Williamsdale Quarry
<b>Address</b>	Williamsdale Road Williamsdale NSW 2620
<b>Licensee</b>	Hanson Construction Materials Pty Ltd
<b>EPL Number</b>	10406
<b>EPL Location</b>	<a href="https://apps.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=182784&amp;SYS_UID=1&amp;LICID=10406">https://apps.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=182784&amp;SYS_UID=1&amp;LICID=10406</a>

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

The monitoring of pollutants provided in this report is undertaken as per the requirements of Environment Protection Licence 10406 (EPL 10406 – Williamsdale Quarry)

This report provides environmental monitoring data for Williamsdale Quarry for the period 1 January 2016 to 30 June 2020.

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

- Deposited Dust (monthly monitoring)
- Blasting

Discharge at Point 1, 2, 3, 4 require the following monitoring requirements			
Pollutant	Units of measure	Frequency	Sampling Method
<b>Ash</b>	grams per square metre per month	Monthly	Australian Standard 3580.10.1-1991
<b>Insoluble solids</b>	grams per square metre per month	Monthly	Australian Standard 3580.10.1-1991
<b>Soluble matter</b>	grams per square metre per month	Monthly	Australian Standard 3580.10.1-1991
<b>Total Solid Particles</b>	grams per square metre per month	Monthly	Australian Standard 3580.10.1-1991

### Noise (L2)

**L2.2** Noise from the premises must not exceed an Laeq (15 minute) noise emission criterion of 35 dB(A) (6am to 10pm) at the boundary (or within 30 metres of the dwelling) of any dwelling at Lot 61 "Briarlea" and Lot 20.

### Blast (L3)

**L3.1** The overpressure level from blasting operations on the premises must not:

- Exceed 115dB (Lin Peak) for more than 5% of the total number of blasts over a period of 12 months;
- and
- Exceed 120dB (Lin Peak) at any time.

**L3.2** Ground vibration peak particle velocity from the blasting operations at the premises must not:

- a) Exceed 5mm/s for more than 5% of the total number of blasts over a period of 12 months; and
- b) Exceed 10mm/s at any time.

when measured at any point within 1 metre of any affected residential boundary or other noise sensitive location such as a school or hospital

### Annual Blast Monitoring Summary

Pollutant	Unit of measure	Monitoring frequency required by licence	No. of times measured during the year	Min value	Max. value	Blast monitor not triggered	Exceedance (yes/no)	Comment
<b>2020</b>								
Blast (overpressure)	dB (Lin Peak)	Every blast event	7	86.1	111.6	0	No	
Blast (ground vibration peak particle velocity)	mm/s	Every blast event	7	1.76	2.74	0	No	
<b>2019</b>								
Blast (overpressure)	dB (Lin Peak)	Every blast event	9	82.6	110.6	1	No	
Blast (ground vibration peak particle velocity)	mm/s	Every blast event	9	0.98	3.43	1	No	
<b>2018</b>								
Blast (overpressure)	dB (Lin Peak)	Every blast event	15	97.3	111.3	2	No	
Blast (ground vibration peak particle velocity)	mm/s	Every blast event	15	0.76	2.15	2	No	
<b>2017</b>								
Blast (overpressure)	dB (Lin Peak)	Every blast event	12	86.3	108.7	0	No	
Blast (ground vibration peak particle velocity)	mm/s	Every blast event	12	0.81	4.34	0	No	
<b>2016</b>								
Blast (overpressure)	dB (Lin Peak)	Every blast event	15	94.3	107.8	1	No	
Blast (ground vibration peak particle velocity)	mm/s	Every blast event	15	0.76	3.25	1	No	

### Annual DDG Monitoring Summary

Pollutant	Unit of measure	Monitoring frequency required by licence	No. of times measured during the year	Point 1 DDG Annual Average	Point 2 DDG Annual Average	Point 3 DDG Annual Average	Point 4 DDG Annual Average	Exceedance (yes/no)
<b>2018-2019</b>								
Total Insoluble Matter	g/m2/month	Monthly	12	3	3.5	3.7	1.5	No
Ash content	g/m2/month	Monthly	12	1.8	2.2	3.1	1.2	No
<b>2017-2018</b>								
Total Insoluble Matter	g/m2/month	Monthly	12	2.9	2.6	3.9	1.7	No
Ash content	g/m2/month	Monthly	12	2	1.4	3.4	1.1	No
<b>2016-2017</b>								
Total Insoluble Matter	g/m2/month	Monthly	12	2.3	2.6	3.9	1.7	No
Ash content	g/m2/month	Monthly	12	1.3	0.5	3.1	0.6	No
<b>2015-2016</b>								
Total Insoluble Matter	g/m2/month	Monthly	12	1.3	0.8	2.9	1.2	No
Ash content	g/m2/month	Monthly	12	0.8	0.5	2.5	0.7	No

Dust Deposition Gauge Monthly Monitoring															
DDG 1 (located near lease boundary at the North of the site)				DDG 2 (located at southern lease boundary)				DDG 3 (located East of the Processing Area)				DDG 4 (located West of the Processing Area)			
Month and Year	Date data obtained	Total Insoluble Matter g/m2/month	Rolling Annual Average	Month and Year	Date data obtained	Total Insoluble Matter g/m2/month	Rolling Annual Average	Month and Year	Date data obtained	Total Insoluble Matter g/m2/month	Rolling Annual Average	Month and Year	Date data obtained	Total Insoluble Matter g/m2/month	Rolling Annual Average
<b>2021</b>															
December 2021				December 2020				December 2020				December 2020			
November 2021				November 2020				November 2020				November 2020			
October 2021				October 2020				October 2020				October 2020			
September 2021				September 2020				September 2020				September 2020			
August 2021				August 2020				August 2020				August 2020			
July 2021				July 2020				July 2020				July 2020			
June 2021				June 2020				June 2020				June 2020			
May 2021				May 2020				May 2020				May 2020			
April 2021	27/04/2021	0.2	0.6	April 2020	27/04/2021	0.3	10.9	April 2020	27/04/2021	0.4	1.0	April 2020	27/04/2021	0.3	0.7
March 2021	29/03/2021	0.6	0.6	March 2020	29/03/2021	0.7	13.1	March 2020	29/03/2021	1.1	1.0	March 2020	29/03/2021	0.8	0.7
February 2021	23/02/2021	0.5	0.6	February 2020	23/02/2021	0.7	15.2	February 2020	23/02/2021	0.9	1.0	February 2020	23/02/2021	1.4	0.7
January 2021	25/01/2021	0.5	0.7	January 2020	25/01/2021	0.9	17.6	January 2020	25/01/2021	0.6	1.0	January 2020	25/01/2021	0.6	0.7
<b>2020</b>															
December 2020	29/12/2020	1.1	1.2	December 2020	29/12/2020	6.7	18.0	December 2020	29/12/2020	1.7	1.5	December 2020	29/12/2020	1.7	1.4
November 2020	20/11/2020	0.8	1.2	November 2020	20/11/2020	68.9	17.5	November 2020	20/11/2020	1.3	1.4	November 2020	20/11/2020	0.6	1.3
October 2020	3/11/2020	0.8	1.3	October 2020	3/11/2020	40.8	11.9	October 2020	3/11/2020	1.1	1.5	October 2020	3/11/2020	0.5	1.6
September 2020	28/09/2020	0.9	1.4	September 2020	28/09/2020	1.1	8.6	September 2020	28/09/2020	1.2	1.5	September 2020	28/09/2020	0.6	1.6
August 2020	31/08/2020	0.4	1.4	August 2020	31/08/2020	4.4	8.7	August 2020	31/08/2020	2	1.5	August 2020	31/08/2020	0.8	1.7
July 2020	3/08/2020	0.4	1.6	July 2020	3/08/2020	2.4	8.5	July 2020	3/08/2020	0.4	1.6	July 2020	3/08/2020	<0.2	1.7
June 2020	30/06/2020	0.6	1.6	June 2020	30/06/2020	2.6	9.6	June 2020	30/06/2020	0.5	1.8	June 2020	30/06/2020	0.4	1.6
May 2020		0.5	1.6	May 2020		0.8	8.9	May 2020		0.9	1.9	May 2020		0.4	1.6
April 2020		0.3	1.7	April 2020		26.8	8.9	April 2020		0.6	2.0	April 2020		0.4	1.7
March 2020		0.3	1.8	March 2020		26.8	6.8	March 2020		0.6	2.3	March 2020		0.4	1.7
February 2020		1.6	2.2	February 2020		29.3	5.1	February 2020		1.6	2.8	February 2020		1.6	1.9
January 2020		6.1	2.9	January 2020		5.9	3.1	January 2020		6.3	3.3	January 2020		8.4	2.0
<b>2019</b>															
December 2019		1.1	2.8	December 2019		0.2	3.3	December 2019		0.2	3.2	December 2019		0.2	1.5
November 2019		2.9	3.1	November 2019		2	3.5	November 2019		2.6	3.5	November 2019		3.6	1.6
October 2019		1.2	3.0	October 2019		0.8	3.5	October 2019		0.8	3.7	October 2019		0.8	1.5
September 2019		1.8	3.3	September 2019		2.1	3.5	September 2019		2	3.8	September 2019		1.9	1.5
August 2019		2.3	3.4	August 2019		2.4	3.5	August 2019		2.5	4.0	August 2019		1	1.4
July 2019		0.9	3.4	July 2019		8.7	3.4	July 2019		3	4.3	July 2019		0.5	1.5
June 2019		0.4	3.7	June 2019		0.5	2.8	June 2019		1.4	4.5	June 2019		0.4	1.5
May 2019		1	3.7	May 2019		1.1	3.0	May 2019		2.8	4.4	May 2019		0.6	1.5
April 2019		1.6	3.6	April 2019		1.3	2.9	April 2019		3.8	4.3	April 2019		0.7	1.5
March 2019		5.4	3.6	March 2019		7.1	3.0	March 2019		7	4.3	March 2019		2.8	1.6
February 2019		9.9	3.3	February 2019		4.5	2.5	February 2019		7.2	4.1	February 2019		3.5	1.5
January 2019		4.6	2.7	January 2019		9.2	3.2	January 2019		4.6	3.7	January 2019		1.8	1.3
<b>2018</b>															
December 2018		4.7	2.6	December 2018		2.3	2.7	December 2018		4.3	3.7	December 2018		1.6	1.3
November 2018		2.6	2.7	November 2018		1.6	2.7	November 2018		4.7	3.6	November 2018		2.1	1.7
October 2018		4.4	2.6	October 2018		1.2	2.8	October 2018		2	3.6	October 2018		0.9	1.6
September 2018		3.2	2.3	September 2018		2.4	2.7	September 2018		4.9	4.0	September 2018		1	1.7
August 2018		2.6	2.1	August 2018		1.2	2.5	August 2018		5.8	3.8	August 2018		1.9	1.7
July 2018		3.6	2.4	July 2018		1	2.5	July 2018		5.6	3.6	July 2018		0.9	1.6
June 2018		0.6	2.2	June 2018		2.6	2.4	June 2018		0.5	3.4	June 2018		0.4	1.6
May 2018		0.5	2.2	May 2018		0.8	2.2	May 2018		0.9	3.8	May 2018		0.4	1.6
April 2018		0.8	2.3	April 2018		2.1	2.2	April 2018		4.2	4.0	April 2018		1.6	1.6
March 2018		1.9	2.4	March 2018		1.4	2.1	March 2018		4	3.8	March 2018		1.6	1.5
February 2018		2.4	2.6	February 2018		12.3	2.0	February 2018		3.3	3.7	February 2018		1.8	1.4

January 2018		3.5	2.4	January 2018		3.7	1.1	January 2018		3.6	3.9	January 2018		1.2	1.4
<b>2017</b>															
December 2017		5.9	2.2	December 2017		1.7	0.9	December 2017		3.5	4.0	December 2017		6.3	1.4
November 2017		1.6	1.9	November 2017		1.1	0.8	November 2017		4.8	4.1	November 2017		1.4	0.9
October 2017		1.5	1.9	October 2017		1.8	0.8	October 2017		6.6	4.0	October 2017		1.7	0.9
September 2017		0.3	2.0	September 2017		0.5	0.7	September 2017		3.2	3.7	September 2017		1	0.8
August 2017		6	2.2	August 2017		0.5	0.7	August 2017		3	3.8	August 2017		0.7	0.8
July 2017		1	1.7	July 2017		0.5	0.8	July 2017		3.4	3.9	July 2017		0.7	0.8
June 2017		1.3	1.8	June 2017		0.5	0.8	June 2017		5.1	4.0	June 2017		0.3	0.8
May 2017		1.7	1.9	May 2017		0.4	0.9	May 2017		3.2	3.8	May 2017		0.4	0.9
April 2017		1.2	1.9	April 2017		0.6	1.0	April 2017		2.2	3.9	April 2017		0.8	1.0
March 2017		4.3	2.1	March 2017		0.7	1.1	March 2017		2.6	4.5	March 2017		1	1.1
February 2017		0.8	1.1	February 2017		0.8	1.3	February 2017		5.7	5.4	February 2017		0.9	1.2
January 2017		1.3	1.3	January 2017		1.8	1.8	January 2017		5.1	5.1	January 2017		1.4	1.4
<b>2016</b>															
December 2016		1.3	1.9	December 2016		1.8	0.9	December 2016		5.1	2.8	December 2016		1.4	1.2
November 2016		7.1	1.9	November 2016		1.7	0.9	November 2016		3.4	2.6	November 2016		1.4	1.2
October 2016		1	1.4	October 2016		0.9	0.8	October 2016		2.4	2.5	October 2016		0.8	1.2
September 2016		1.3	1.4	September 2016		0.5	0.8	September 2016		1.2	2.6	September 2016		0.7	1.2
August 2016		1.2	1.4	August 2016		0.7	0.8	August 2016		3	2.7	August 2016		0.8	1.3
July 2016		1.4	1.5	July 2016		0.7	0.8	July 2016		2.8	2.7	July 2016		1.4	1.4
June 2016		3.6	1.5	June 2016		1	0.8	June 2016		3.3	2.7	June 2016		2.9	1.4
May 2016		0.8	1.1	May 2016		0.4	0.8	May 2016		3.9	2.5	May 2016		1.5	1.1
April 2016		0.8	1.1	April 2016		0.9	0.9	April 2016		5.4	2.2	April 2016		1.4	1.0
March 2016		0.9	1.2	March 2016		0.7	0.9	March 2016		1.7	1.1	March 2016		0.6	0.8
February 2016		0.9	1.4	February 2016		0.7	1.0	February 2016		1.7	0.9	February 2016		0.6	0.9
January 2016		1.9	1.9	January 2016		1.2	1.2	January 2016		0	0.0	January 2016		1.2	1.2

## Blast Monitoring

Date	Time	Blast Location	Blast #	Monitor Location	Air Blast dBL	Ground Vibration (m/s)	Comment
<b>2021</b>							
21/01/2021	11:32 AM	RL955	169	Royalla Estate	106.2	0.46	
<b>2020</b>							
24/11/2020	1:35 PM	RL Bench 925	168	Royalla Estate	111.6	2.51	
29/10/2020	2:19PM	RL Bench 955	167	Royalla Estate	105.5	2.35	
9/10/2020	12:21 PM	RL Bench 925	166	Royalla Estate	103.7	2.74	
18/08/2020	1:18 PM	RL Bench 940	165	Royalla Estate	109	2.08	
12/06/2020	12:51 PM	RL Bench 955 & 940	164 a & b	Royalla Estate	102.3	1.76	
31/03/2020	2:27 PM	RL Bench 940	163	Royalla Estate	98.4	2.5	
10/01/2020	1:12 PM	RL Bench 925	162	Royalla Estate	86.1	1.88	
<b>2019</b>							
13/12/2019	1:41 PM	RL Bench 925	161	Royalla Estate	82.6	1.65	
12/11/2019	12:02 PM	RL Bench 955	160	Royalla Estate	Nil Trigger	Nil Trigger	
15/08/2019	2:25 PM	RL Bench 940	159	Royalla Estate	99.2	3.39	
19/07/2019	2:40 PM	RL Bench 940	158	Royalla Estate	93.2	1.44	
21/05/2019	12:10 PM	RL Bench 955	157	Royalla Estate	104.8	3.43	
16/04/2019	1:36 PM	RL Bench 955	156	Royalla Estate	106.6	3.34	
26./03/2019	1:25 PM	RL Bench 910	155	Royalla Estate	110.6	2.75	
8/03/2019	10:23 AM	RL Bench 955	154	Royalla Estate	104.9	1.61	
12/02/2019	1:10 PM	RL Bench 910	153	Royalla Estate	105.8	0.98	
<b>2018</b>							
19/12/2018	1:29 PM	RL Bench 955	152	Royalla Estate	100.8	1.39	
23/11/.2018	1:32 PM	RL Bench 925	151	Royalla Estate	97.3	0.76	
13/11/2018	11:45 AM	RL Bench 955	150	Royalla Estate	102	1.33	
26/10/2018	12:15 PM	Ramp Decline	149	Royalla Estate	Nil Trigger	Nil Trigger	
12/10/2018	10:01 AM	RL Bench 955	148	Royalla Estate	103	2.15	
14/09/2018	2:02 PM	RL Bench 955	147	Royalla Estate	100.8	1.18	
27/08/2018	9:50 AM	RL Bench 955	146	Royalla Estate	Nil Trigger	Nil Trigger	
21/08/2019	1:31 PM	RL Bench 970	145	Royalla Estate	108.4	0.78	
17/07/2018	2:43 PM	RL Bench 970	144	Royalla Estate	101	1.22	
22/06/2018	1:01 PM	RL 910Bench	143	Royalla Estate	99.8	0.86	
4/05/2018	1:44 PM	RL Bench 940	142	Sherins Lane	98.3	1.35	
22/05/2018	1:44 PM	RL Bench 970	141	Royalla Estate	102.1	1.69	
27/03/2018	1:15 PM	RL Bench 940	140	Royalla Estate	100.7	1.08	
16/02/2018	2:46 PM	RL Bench 925	139	Royalla Estate	111.3	0.92	
9/01/2018	2:58 PM	RL Bench 925	138	Royalla Estate	102.8	1.43	
<b>2017</b>							
14/11/2017	12:33 PM	RL Bench 940	137	Royalla Estate	94.4	1.94	
6/10/2017	12:52 PM	RL Bench 925	136	Royalla Estate	103.7	2.97	
18/08/2017	2:16 PM	RL Bench 925	135a	Royalla Estate	86.3	2.14	
18/08/2017	2:16 PM	RL Bench 925	135	Royalla Estate	101.4	2.64	
5/07/2017	2:41 PM	RL Bench 925	134	Royalla Estate	101.9	2.72	
9/06/2017	1:53 PM	RL Bench 925	133	Royalla Estate	107.9	4.34	
9/05/2017	2:02 PM		132	Royalla Estate	100.9	1.46	
26/04/2017	2:10 PM	RL Bench 940	131	Royalla Estate	102	2.19	
8/03/2017		RL bench 955	130	Royalla Estate	86.3	2.14	
10/03/2017	9:39 AM	RL Bench 925	128 & 129	Royalla Estate	108.7	2.16	
23/02/2017	11:55 AM	RL940 Bench	127	Royalla Estate	96.2	1	
31/01/2017	11:30 AM	Decline	126	Royalla Estate	98	0.81	
<b>2016</b>							
19/12/2016	11:45 AM	Sheerins Lane 940 Bench	125	Royalla Estate	94.5	0.76	
22/11/2016	2:43 PM	Sheerins Lane 940 Bench	124	Royalla Estate	103.8	3.25	
11/10/2016	1:57 PM	Sheerins Lane 940 Bench	123	Royalla Estate	97.2	2.56	
5/09/2016	1:47 PM	Sheerins Lane 940 Bench	122	Royalla Estate	98.7	2.56	
15/08/2016	1:49 PM	Sheerins Lane 121 Decline Bench	121	Royalla Estate	95.9	2.91	
20/07/2016	12:56 PM	Sheerins Lane 940 Bench	120	Royalla Estate	97.2	2.72	
5/07/2016	1:57 PM	Sheerins Lane 940 Bench	119	Royalla Estate	103.2	1.82	
17/06/2016	11:16 AM	Sheerins Lane 925 Bench	118	Royalla Estate	94.3	2.85	
24/05/2016	1:32 PM	Sheerins Lane 955 Bench	117	Royalla Estate	103.7	1.95	

17/05/2016	2:01 PM	Sheerins Lane 955 bench	116	Royalla Estate	101.5	1.54	
10/05/2016	2:14 PM	Sheerins Lane 955 Bench Eastern Wall	115	Royalla Estate	103.1	1.14	
1/04/2016	12:55 PM	Sheerins Lane RL940 Bench	114	Royalla Estate	107.8	2.94	
29/02/2016	2:03 PM	Sheerins Lane 955 Bench	113	Royalla Estate	99	1.27	
29./01/2016	12:00 PM	Sheerins Lane RL 940 Bench	112	Royalla Estate	Nil Trigger	Nil Trigger	
22/01/2016	12:00 PM	Sheerins Lane RL 940 Bench	111	Royalla Estate	102.8	1.17	

## Summary of Noise Monitoring November 2018

Location and Period	Criteria Level (dBA)	Measured noise levels (dBA)			Estimated site contribution (dBA)
		LAMAX	L <sub>Aeq</sub>	LA90	L <sub>Aeq, 15 min</sub>
N1 (South-west of quarry boundary) – Morning Shoulder	35	87	64	36	33
N1 (South-west of quarry boundary) - Day	35	85	62	36	33
N2 (Southern boundary) – Morning Shoulder	35	83	60	34	32
N2 (Southern boundary) - Day	35	79	54	36	32
N3 (Northern boundary) – Morning Shoulder	N/A	64	45	32	<30
N3 (Northern boundary) – Day	N/A	71	45	36	<30

