	Central Coast Sands Quarry Information								
Premise Details	Hanson – Williamsdale Quarry								
Address	Williamsdale Road Williamsdale NSW 2620								
Licensee	Hanson Construction Materials Pty Ltd								
EPL Number	10406								
	https://apps.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=182784&SYS								
EPL Location	<u>UID=1&LICID=10406</u>								

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 April 2022.

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

- Deposited Dust (monthly monitoring)
- Blasting

Dischar	Discharge at Point 1, 2, 3, 4 require the following monitoring requirements											
Pollutant	Units of measure	Frequency	Sampling Method									
	grams per square											
Ash	metre per month	Monthly	Australian Standard 3580.10.1-1991									
	grams per square											
Insoluble solids	metre per month	Monthly	Australian Standard 3580.10.1-1991									
	grams per square											
Soluble matter	metre per month	Monthly	Australian Standard 3580.10.1-1991									
	grams per square											
Total Solid Particles	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 criteiron 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:
- a) Exceed 115dB (Lin Peak) for more than 5% of the total number of blasts over a period of 12 months; and
- b) 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				
			2022									
Blast (overpressure)	dB (Lin Peak)	Every blast event	3	100.2	113.2	0	No					
Blast (ground vibration												
peak particle velocity)	mm/s	Every blast event	3	1.85	4.32	0	No					
2021												
Blast (overpressure)	dB (Lin Peak)	Every blast event	5	97.7	112.9	0	No					
Blast (ground vibration												
peak particle velocity)	mm/s	Every blast event	5	0.46	3.83	0	No					
			2020									
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					
			2019									
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					
			2018									
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					
			2017									
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					
			2016									
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)					
			2021-202	1									
Total Insoluble Matter	g/m2/month	Monthly	8 - 11	3.7	0.8	1.3	1.3	No					
Ash content	g/m2/month	Monthly	8 - 11					No					
			2020-202	1									
Total Insoluble Matter	g/m2/month	Monthly	12	0.6	2	1	0.8	No					
Ash content	g/m2/month	Monthly	12	0.3	1.4	0.5	0.3	No					
			2019-202	0									
Total Insoluble Matter	g/m2/month	Monthly	12	1.6	2.9	1.8	1.6	No					
Ash content	g/m2/month	Monthly	12	N/A	N/A	N/A	N/A	No					
			2018-201	9									
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					
			2017-201	8									
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					
			2016-201	7									
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					
			2015-201	6									
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					

					Dus	st Depositi	on Gaug	e Monthly M	onitoring						
DDG 1 (loc	ated near lease bour	ndary at the North of t	the site)	DDG	2 (located at sour	thern lease boundary)	DDG	3 (located East o	f the Processing Area)	DDG	4 (located West	of the Processing Area)
Month and Year	Date data obtained	Total Insoluble Solids 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
							20	22							
December 2022				December 2021				December 2021				December 2021			
November 2022	30/11/2022	11.1	3.7	November 2021	30/11/2022	0.6	0.8	November 2021	30/11/2022	No Data	1.3	November 2021	30/11/2022	0.6	1.3
October 2022	2/11/2022	0.6	2.8	October 2021	2/11/2022	No Data	1.0	October 2021	2/11/2022	No Data	1.4	October 2021	2/11/2022	No Data	1.3
September 2022	12/10/2022	18	2.8	September 2021	12/10/2022	0.4	4.5	September 2021	12/10/2022	0.4	1.3	September 2021	12/10/2022	0.3	1.3
August 2022	25/08/2022	5.8	1.2	August 2021	25/08/2022	0.9	6.1	August 2021	25/08/2022	5.2	1.4	August 2021	25/08/2022	0.5	1.3
July 2022	26/07/2022	0.4	0.7	July 2021	26/07/2022	0.4	6.1	July 2021	26/07/2022	0.4	0.9	July 2021	26/07/2022	0.3	1.2
June 2022 May 2022	5/07/2022 2/06/2022	1.1 0.3	0.7	June 2021 May 2021	29/06/2022 2/06/2022	0.9 1.6	6.1 6.2	June 2021 May 2021	29/06/2022 2/06/2022	0.2	0.9	June 2021 May 2021	29/06/2022 2/06/2022	0.2	1.2
April 2022	No Data	No Data	0.6	April 2021	No Data	No Data	6.1	April 2021	No Data	No Data	1.0	April 2021	No Data	No Data	1.3
March 2022	19/04/2022	0.4	0.6	March 2021	19/04/2022	Not Sampled	5.5	March 2021	19/04/2022	1.5	0.9	March 2021	19/04/2022	0.3	1.2
February 2022	7/03/2022	0.5	0.6	February 2021	7/03/2022	Not Sampled	5.1	February 2021	7/03/2022	Not Sampled	0.9	February 2021	7/03/2022	0.5	1.2
January 2022	31/01/2022	1.1	0.6	January 2021	31/01/2022	0.8	4.7		31/01/2022	0.9	0.9	January 2021		1.5	1.3
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December 2021	14/07/2022	1	0.5	December 2021	14/01/2022	1.1	4.7		14/01/20222	0.8	0.8	December 2021	14/01/2022	8.4	1.2
November 2021	30/11/2021	1.1	0.5	November 2021	30/11/2021	1.6	5.2	November 2021	30/11/2021	2.5	0.8	November 2021	30/11/2021	0.4	0.7
October 2021	26/10/2021	0.7	0.5	October 2021	26/10/2021	33	10.8	October 2021	0/01/1900	0.9	0.8	October 2021	26/10/2021	0.6	0.7
September 2021	5/10/2021	0.3	0.5	September 2021	5/10/2021	15	11.4	September 2021	5/10/2021	0.6	0.8	September 2021	5/10/2021	0.3	0.6
August 2021	31/08/2021	0.4	0.6	August 2021	31/08/2021	0.4	10.3	August 2021	31/08/2021	0.5	0.9	August 2021	31/08/2021	0.3	0.7
July 2021	27/07/2021	0.3	0.6	July 2021	27/07/2021	0.4	10.6	July 2021	27/07/2021	0.3	1.0	July 2021	27/07/2021	0.2	0.7
June 2021	30/06/2021	0.6	0.6	June 2021	30/06/2021	1.8	10.8	June 2021	30/06/2021	0.8	1.0	June 2021	30/06/2021	0.5	0.8
May 2021	28/05/2021	0.3	0.6	May 2021	28/05/2021	0.5	10.8	May 2021	28/05/2021	0.7	1.0	May 2021	28/05/2021	0.5	0.7
April 2021	27/04/2021	0.2	0.6	April 2021	27/04/2021	0.3	10.9	April 2021	27/04/2021	0.4	1.0	April 2021	27/04/2021	0.3	0.7
March 2021	29/03/2021	0.6	0.6	March 2021	29/03/2021	0.7	13.1	March 2021	29/03/2021	1.1	1.0	March 2021	29/03/2021	0.8	0.7
February 2021	23/02/2021	0.5	0.6	February 2021	23/02/2021	0.7	15.2	February 2021	23/02/2021	0.9	1.0	February 2021	23/02/2021	1.4	0.7
January 2021	25/01/2021	0.5	0.7	January 2021	25/01/2021	0.9	17.6	January 2021	25/01/2021	0.6	1.0	January 2021	25/01/2021	0.6	0.7
							20	20							
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		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 1.8	July 2020	3/08/2020	<0.2 0.4	1.7 1.6
June 2020 May 2020	30/06/2020	0.6	1.6 1.6	June 2020 May 2020	30/06/2020	2.6 0.8	9.6 8.9	June 2020 May 2020	30/06/2020	0.5	1.8	June 2020 May 2020	30/06/2020	0.4	1.6
April 2020		0.3	1.7	April 2020		26.8	8.9	April 2020		0.9	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		January 2020		8.4	2.0
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December 2019		1.1	2.8	December 2019		0.2	3.3			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	<u> </u>	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
					20	18					
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
					20	17					
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
					20	16					
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

		Blas	t Monitor	ing			
Date	Time	Blast Location	Blast #	Monitor Location	Air Blast dBL	Ground Vibration (m/s)	Comment
			2022				
28/10/2022	2:27 PM	RL Bench 940 East	177	Royalla Estate	100.2	4.32	
20/12/2022		RL Bench 940 West		Royalla Estate	113.2	3.82	
30/03/2022	2:07 PM	RL Bench 955 East		Royalla Estate	105.1	1.85	
	ı		2021		<u>, </u>		
21/12/2021		RL Bench 955		Royalla Estate	100.4	2.55	
5/10/2021 20/07/2021		RL Bench 955 RL Bench 955		Royalla Estate Royalla Estate	97.7 98.1	2.35 3.83	
20/04/2021		RL Bench 940		Royalla Estate	112.9	1.11	
5/03/2021		RL Bench 940		Royalla Estate	99.8	1.29	
21/01/2021	11:32 AM	RL Bench 955	169	Royalla Estate	106.2	0.46	
			2020				
24/11/2020		RL Bench 925		Royalla Estate	111.6	2.51	
29/10/2020		RL Bench 955		Royalla Estate	105.5	2.35	
9/10/2020 18/08/2020		RL Bench 925		Royalla Estate	103.7	2.74	
18/08/2020		RL Bench 940 RL Bench 955 & 940	164 a & b	Royalla Estate Royalla Estate	109	2.08 1.76	
31/03/2020		RL Bench 940		Royalla Estate	98.4	2.5	
10/01/2020		RL Bench 925		Royalla Estate	86.1	1.88	
			2019		<u>'</u>		
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		RL Bench 940	159	Royalla Estate	99.2	3.39	
19/07/2019		RL Bench 940		Royalla Estate	93.2	1.44	
21/05/2019		RL Bench 955		Royalla Estate	104.8	3.43	
16/04/2019 26./03/2019		RL Bench 955 RL Bench 910		Royalla Estate Royalla Estate	106.6 110.6	3.34 2.75	
8/03/2019		RL Bench 955		Royalla Estate	104.9	1.61	
12/02/2019		RL Bench 910		Royalla Estate	105.8	0.98	
			2018				
19/12/2018	1:29 PM	RL Bench 955	152	Royalla Estate	100.8	1.39	
23/11/.2018		RL Bench 925		Royalla Estate	97.3	0.76	
13/11/2018		RL Bench 955		Royalla Estate	102	1.33	
26/10/2018		Ramp Decline RL Bench 955		Royalla Estate	Nil Trigger	Nil Trigger	
12/10/2018 14/09/2018		RL Bench 955		Royalla Estate Royalla Estate	103	2.15 1.18	
27/08/2018		RL Bench 955		Royalla Estate	Nil Trigger	Nil Trigger	
21/08/2019		RL Bench 970		Royalla Estate	108.4	0.78	
17/07/2018	2:43 PM	RL Bench 970	144	Royalla Estate	101	1.22	
22/06/2018		RL 910Bench		Royalla Estate	99.8	0.86	
4/05/2018		RL Bench 940		Sherins Lane	98.3	1.35	
22/05/2018 27/03/2018		RL Bench 970 RL Bench 940		Royalla Estate Royalla Estate	102.1 100.7	1.69 1.08	
16/02/2018		RL Bench 925		Royalla Estate	111.3	0.92	
9/01/2018		RL Bench 925		Royalla Estate	102.8	1.43	
			2017				
14/11/2017	12:33 PM	RL Bench 940	137	Royalla Estate	94.4	1.94	
6/10/2017		RL Bench 925		Royalla Estate	103.7	2.97	
18/08/2017		RL Bench 925	135a	Royalla Estate	86.3	2.14	
18/08/2017		RL Bench 925		Royalla Estate	101.4	2.64	
5/07/2017 9/06/2017		RL Bench 925 RL Bench 925		Royalla Estate Royalla Estate	101.9 107.9	2.72 4.34	
9/05/2017	2:02 PM			Royalla Estate	107.9	1.46	
26/04/2017		RL Bench 940		Royalla Estate	102	2.19	
8/03/2017		RL bench 955		Royalla Estate	86.3	2.14	
10/03/2017		RL Bench 925		Royalla Estate	108.7	2.16	
23/02/2017		RL940 Bench		Royalla Estate	96.2	1	
31/01/2017	11:30 AM	Decline	126	Royalla Estate	98	0.81	

125 Royalla Estate

124 Royalla Estate

94.5

103.8

0.76

3.25

2016

11:45 AM Sheerins Lane 940 Bench 2:43 PM Sheerins Lane 940 Bench

19/12/2016

22/11/2016

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)	Measure	Estimated site contribution (dBA)								
	(GBA)	LAMAX	LAeq	LA90	LAeq, 15 min						
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						

