



# Attachment 4.1H - Environmental Monitoring Worksheet

Period: 01/05/2018 - 15/05/2018

Location	Test	Freq	Limit		Units	Sample Date	NSW Environment Protection Licence Requirement	Date Sample Transferred to Laboratory	Date Sample Results Received by Holcim	Date of Remote Data Download	Result	Comments
			min	max								

Site: **Albion Park Quarry** NRR = No Result Recorded

Environment Protection Licence No.	122
Site Name (As it appears on the licence)	Albion Park Quarry
Site Address (As it appears on the licence)	Albion Park Quarry Woollybutt Drive ALBION PARK RAIL NSW 2527
Link to Licence on EPA Website	<a href="http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=54925&amp;SYSUID=1&amp;LICID=122">http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=54925&amp;SYSUID=1&amp;LICID=122</a>

Water												
Point 1	pH	After 90mm rain	6.5	8.5	pH		Y				NRR	
	Oil and Grease	After 90mm rain	0	0	Visible		Y				NRR	
	TSS	After 90mm rain		50	mg/L		Y				NRR	
Point 2	pH	After 90mm rain	6.5	8.5	pH		Y				NRR	
	Oil and Grease	After 90mm rain	0	0	Visible		Y				NRR	
	TSS	After 90mm rain		50	mg/L		Y				NRR	
Point 1	pH	After 90mm rain	6.5	8.5	pH		Y				NRR	
	Oil and Grease	After 90mm rain	0	0	Visible		Y				NRR	
	TSS	After 90mm rain		50	mg/L		Y				NRR	
Point 2	pH	After 90mm rain	6.5	8.5	pH		Y				NRR	
	Oil and Grease	After 90mm rain	0	0	Visible		Y				NRR	
	TSS	After 90mm rain		50	mg/L		Y				NRR	
Point 1	pH	After 90mm rain	6.5	8.5	pH		Y				NRR	
	Oil and Grease	After 90mm rain	0	0	Visible		Y				NRR	
	TSS	After 90mm rain		50	mg/L		Y				NRR	
Point 2	pH	After 90mm rain	6.5	8.5	pH		Y				NRR	
	Oil and Grease	After 90mm rain	0	0	Visible		Y				NRR	
	TSS	After 90mm rain		50	mg/L		Y				NRR	

Air												
Site 1	Ash	Monthly		90		5/4/18	Y	5/8/18	14/05/2018		43	
Site 2	Ash	Monthly		90		5/4/18	Y	5/8/18	14/05/2019		13	
Site 3	Ash	Monthly		90		5/4/18	Y	5/8/18	14/05/2020		53	
Site 4	Ash	Monthly		90		5/4/18	Y	5/8/18	14/05/2021		28	

Blasting												
Time of Blast												
		Per Blast		5	mm/s		Y				NRR	
		Per Blast		115	dB		Y				NRR	
		Per Blast		5	mm/s		Y				NRR	
		Per Blast		115	dB		Y				NRR	
		Per Blast		5	mm/s		Y				NRR	
		Per Blast		115	dB		Y				NRR	
		Per Blast		5	mm/s		Y				NRR	
		Per Blast		115	dB		Y				NRR	
		Per Blast		5	mm/s		Y				NRR	

Site: **"Johnniefields" Marulan Quarry**

Environment Protection Licence No.	1371
Site Name (As it appears on the licence)	Marulan Quarry
Site Address (As it appears on the licence)	Marulan Quarry Brayton Road MARULAN NSW 2579

Link to Licence on EPA Website

<http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLlicence.aspx?DOCID=32923&SYSUID=1&LICID=1371>

Blasting										
										Time of Blast
Underdowns	Overpressure	Per Blast		115	dB		Y			NRR
	Vibration	Per Blast		5	mm/s		Y			NRR
Underdowns	Overpressure	Per Blast		115	dB		Y			NRR
	Vibration	Per Blast		5	mm/s		Y			NRR
Underdowns	Overpressure	Per Blast		115	dB		Y			NRR
	Vibration	Per Blast		5	mm/s		Y			NRR
Underdowns	Overpressure	Per Blast		115	dB		Y			NRR
	Vibration	Per Blast		5	mm/s		Y			NRR
Underdowns	Overpressure	Per Blast		115	dB		Y			NRR
	Vibration	Per Blast		5	mm/s		Y			NRR

**Site: Lynwood Quarry**

Environment Protection Licence No.

12939

Site Name (As it appears on the licence)

Lynwood Quarry

Site Address (As it appears on the licence)

Lynwood Quarry 278 Stoney Creek Road, MARULAN NSW 2579

Link to Licence on EPA Website

<http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLlicence.aspx?DOCID=105521&SYSUID=1&LICID=12939>

Air										
DD 5	Insoluble Solids	Monthly	0	4	mg/m2/month	18/5/18	Y	21/5/18	23/5/18	1.7
DD 8	Insoluble Solids	Monthly	0	4	mg/m2/month	18/5/18	Y	21/5/18	23/5/18	0.8
DD 11	Insoluble Solids	Monthly	0	4	mg/m2/month	18/5/18	Y	21/5/18	23/5/18	0.9
DD 12	Insoluble Solids	Monthly	0	4	mg/m2/month	18/5/18	Y	21/5/18	23/5/18	0.5
DD 13	Insoluble Solids	Monthly	0	4	mg/m2/month	18/5/18	Y	21/5/18	23/5/18	0.9
HVAS 1	PM10	24hr (every 6 days)	0	50	µg/m3	5/1/18	Y	2/5/2018	4/5/2018	4.1
HVAS 1	PM10	24hr (every 6 days)	0	50	µg/m3	5/7/18	Y	8/5/2018	10/5/2018	9.9
HVAS 1	PM10	24hr (every 6 days)	0	50	µg/m3	13/5/18	Y	18/5/18	24/5/18	0
HVAS 2	PM10	24hr (every 6 days)	0	50	µg/m3	5/1/18	Y	2/5/2018	4/5/2018	4.8
HVAS 2	PM10	24hr (every 6 days)	0	50	µg/m3	5/7/18	Y	8/5/2018	10/5/2018	13.4
HVAS 2	PM10	24hr (every 6 days)	0	50	µg/m3	13/5/18	Y	18/5/18	24/5/18	1.6

Blasting										
										Time of Blast
B1 - Rail	Peak Particle Velocity	Per Blast	0	25	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B2 - Pipeline	Peak Particle Velocity	Per Blast	0	100	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B3 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B3 - Resident	Overpressure	Per Blast	0	115	dB	0/1/00	Y	12:00:00 AM		NRR
B1 - Rail	Peak Particle Velocity	Per Blast	0	25	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B2 - Pipeline	Peak Particle Velocity	Per Blast	0	100	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B3 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B3 - Resident	Overpressure	Per Blast	0	115	dB	0/1/00	Y	12:00:00 AM		NRR
B1 - Rail	Peak Particle Velocity	Per Blast	0	25	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B2 - Pipeline	Peak Particle Velocity	Per Blast	0	100	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B3 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B3 - Resident	Overpressure	Per Blast	0	115	dB	0/1/00	Y	12:00:00 AM		NRR
B1 - Rail	Peak Particle Velocity	Per Blast	0	25	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B2 - Pipeline	Peak Particle Velocity	Per Blast	0	100	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B3 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B3 - Resident	Overpressure	Per Blast	0	115	dB	0/1/00	Y	12:00:00 AM		NRR
B4 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	5/9/18	Y	3:06:00 PM	5/11/18	0
B4 - Resident	Overpressure	Per Blast	0	115	dB	5/9/18	Y	3:06:00 PM	5/11/18	0
B5 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	5/9/18	Y	3:06:00 PM	5/11/18	0
B5 - Resident	Overpressure	Per Blast	0	115	dB	5/9/18	Y	3:06:00 PM	5/11/18	0
B6 - Rail	Peak Particle Velocity	Per Blast	0	25	mm/sec	5/9/18	Y	3:06:00 PM	5/11/18	0.65
B6 - Pipeline	Peak Particle Velocity	Per Blast	0	100	mm/sec	5/9/18	Y	3:06:00 PM	5/11/18	0.65

<b>B4 - Resident</b>	Peak Particle Velocity	Per Blast	0	5	mm/sec	5/10/18	Y	2:09:00 PM	5/11/18	0
<b>B4 - Resident</b>	Overpressure	Per Blast	0	115	dB	5/10/18	Y	2:09:00 PM	5/11/18	0
<b>B5 - Resident</b>	Peak Particle Velocity	Per Blast	0	5	mm/sec	5/10/18	Y	2:09:00 PM	5/11/18	0
<b>B5 - Resident</b>	Overpressure	Per Blast	0	115	dB	5/10/18	Y	2:09:00 PM	5/11/18	0
<b>B6 - Rail</b>	Peak Particle Velocity	Per Blast	0	25	mm/sec	5/10/18	Y	2:09:00 PM	5/11/18	0
<b>B6 - Pipeline</b>	Peak Particle Velocity	Per Blast	0	100	mm/sec	5/10/18	Y	2:09:00 PM	5/11/18	0

**Site: Cooma Road Quarry**

Environment Protection Licence No.	<b>1453</b>
Site Name (As it appears on the licence)	Cooma Road Quarry
Site Address (As it appears on the licence)	Cooma Road Quarry Cooma Road Queanbeyan NSW 2620
Link to Licence on EPA Website	<a href="http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=32932&amp;SYSUID=1&amp;LICID=1453">http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=32932&amp;SYSUID=1&amp;LICID=1453</a>

Water										
<b>Barracks Creek</b>	pH	Monthly	6.5	8.5	pH	5/3/18	Y			7.5
	Total O&G	Monthly	0	10	mg/L	5/3/18	Y			<1
	Susp. Solids	Monthly	0	50	mg/L	5/3/18	Y			12

Blasting										
Time of Blast										
<b>Heffernans House</b>	Overpressure	Per blast	0	115	dB	5/1/18	Y	1:20:00 PM		95.8
	Vibration	Per blast	0	5	mm/s	5/1/18	Y	1:20:00 PM		1.04
<b>Jerrabomberra</b>	Overpressure	Per blast	0	115	dB		Y			NRR
	Vibration	Per blast	0	5	mm/s		Y			NRR
<b>Heffernans House</b>	Overpressure	Per blast	0	115	dB		Y			NRR
	Vibration	Per blast	0	5	mm/s		Y			NRR
<b>Heffernans House</b>	Overpressure	Per blast	0	115	dB		Y			NRR
	Vibration	Per blast	0	5	mm/s		Y			NRR

**Site: Dubbo Quarry**

Environment Protection Licence No.	<b>2212</b>
Site Name (As it appears on the licence)	Dubbo Quarry
Site Address (As it appears on the licence)	Sheraton Road, Dubbo, NSW,2830
Link to Licence on EPA Website	<a href="http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=42179&amp;SYSUID=1&amp;LICID=2212">http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=42179&amp;SYSUID=1&amp;LICID=2212</a>

Blasting											
Time of Blast											
<b>WARRENS HOUSE</b>	Overpressure	Per blast		120	dB		Y			NRR	no blasting during the reporting period
	Vibration	Per blast		10	mm/s		Y			NRR	
<b>WARRENS HOUSE</b>	Overpressure	Per blast		120	dB		Y			NRR	
	Vibration	Per blast		10	mm/s		Y			NRR	
<b>WARRENS HOUSE</b>	Overpressure	Per blast		120	dB		Y			NRR	
	Vibration	Per blast		10	mm/s		Y			NRR	
<b>WARRENS HOUSE</b>	Overpressure	Per blast		120	dB		Y			NRR	
	Vibration	Per blast		10	mm/s		Y			NRR	

**Site: Dunloe Sands Quarry**

Environment Protection Licence No.	<b>13077</b>
Site Name (As it appears on the licence)	Dunloe Sands Quarry
Site Address (As it appears on the licence)	Pottsville-Mooball Road, Mooball NSW 2483
Link to Licence on EPA Website	<a href="http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=134905&amp;SYSUID=1&amp;LICID=13077">http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=134905&amp;SYSUID=1&amp;LICID=13077</a>

Water - \*Frequency is as per 'Special Frequency 1' referred to in Condition M2.3 of EPL

<b>Silt Pond discharge monitoring point</b>	Discharge pH	<24 hours prior to overflow event*	6.5	8.5	pH	0/1/00	Y				NRR	0
0	Discharge pH	Overflow (Day 1)*	6.5	8.5	pH	0/1/00	Y				NRR	0
0	Discharge pH	Overflow (Day 2)*	6.5	8.5	pH	0/1/00	Y				NRR	0
0	Discharge pH	Overflow (Day 3)*	6.5	8.5	pH	0/1/00	Y				NRR	0
0	Discharge pH	Overflow (Day 4)*	6.5	8.5	pH	0/1/00	Y				NRR	0
0	Discharge pH	Overflow (Day 5)*	6.5	8.5	pH	0/1/00	Y				NRR	0
0	Discharge TSS	<24 hours prior to overflow event*	0	50	mg/L	0/1/00	Y				NRR	0
0	Discharge TSS	Overflow (Day 1)*	0	50	mg/L	0/1/00	Y				NRR	0
0	Discharge TSS	Overflow (Day 2)*	0	50	mg/L	0/1/00	Y				NRR	0
0	Discharge TSS	Overflow (Day 3)*	0	50	mg/L	0/1/00	Y				NRR	0
0	Discharge TSS	Overflow (Day 4)*	0	50	mg/L	0/1/00	Y				NRR	0
0	Discharge TSS	Overflow (Day 5)*	0	50	mg/L	0/1/00	Y				NRR	0
0	Oil and Grease	<24 hours prior to overflow event*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0
0	Oil and Grease	Overflow (Day 1)*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0
0	Oil and Grease	Overflow (Day 2)*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0
0	Oil and Grease	Overflow (Day 3)*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0
0	Oil and Grease	Overflow (Day 4)*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0
0	Oil and Grease	Overflow (Day 5)*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0
<b>Grease Pond discharge monitoring point</b>	Discharge pH	<24 hours prior to overflow event*	6.5	8.5	pH	0/1/00	Y				NRR	0
0	Discharge pH	Overflow (Day 1)*	6.5	8.5	pH	0/1/00	Y				NRR	0
0	Discharge pH	Overflow (Day 2)*	6.5	8.5	pH	0/1/00	Y				NRR	0
0	Discharge pH	Overflow (Day 3)*	6.5	8.5	pH	0/1/00	Y				NRR	0
0	Discharge pH	Overflow (Day 4)*	6.5	8.5	pH	0/1/00	Y				NRR	0
0	Discharge pH	Overflow (Day 5)*	6.5	8.5	pH	0/1/00	Y				NRR	0
0	Discharge TSS	<24 hours prior to overflow event*	0	50	mg/L	0/1/00	Y				NRR	0
0	Discharge TSS	Overflow (Day 1)*	0	50	mg/L	0/1/00	Y				NRR	0
0	Discharge TSS	Overflow (Day 2)*	0	50	mg/L	0/1/00	Y				NRR	0
0	Discharge TSS	Overflow (Day 3)*	0	50	mg/L	0/1/00	Y				NRR	0
0	Discharge TSS	Overflow (Day 4)*	0	50	mg/L	0/1/00	Y				NRR	0
0	Discharge TSS	Overflow (Day 5)*	0	50	mg/L	0/1/00	Y				NRR	0
0	Oil and Grease	<24 hours prior to overflow event*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0
0	Oil and Grease	Overflow (Day 1)*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0
0	Oil and Grease	Overflow (Day 2)*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0
0	Oil and Grease	Overflow (Day 3)*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0
0	Oil and Grease	Overflow (Day 4)*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0
0	Oil and Grease	Overflow (Day 5)*	0	0	0=Not Visible; 1=Visible	0/1/00	Y				NRR	0
<b>Groundwater</b>			0	0			0	0	0	0	0	0
<b>DLP1</b>	Ammonia	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Chloride	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Electrical conductivity	Yearly	-	-	µm/cm	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Oil and Grease	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	pH	Yearly	-	-	pH	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Standing Water Level	Yearly	-	-	m	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Sulfate	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
<b>DLP2</b>	Ammonia	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Chloride	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Electrical conductivity	Yearly	-	-	µm/cm	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Oil and Grease	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	pH	Yearly	-	-	pH	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Standing Water Level	Yearly	-	-	m	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Sulfate	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
<b>DLP3</b>	Ammonia	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Chloride	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Electrical conductivity	Yearly	-	-	µm/cm	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Oil and Grease	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	pH	Yearly	-	-	pH	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Standing Water Level	Yearly	-	-	m	0/1/00	Y		0/1/00	0/1/00	NRR	0

0	Sulfate	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
DLP5	Ammonia	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Chloride	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Electrical conductivity	Yearly	-	-	µm/cm	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Oil and Grease	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	pH	Yearly	-	-	pH	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Standing Water Level	Yearly	-	-	m	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Sulfate	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
DLP6	Ammonia	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Chloride	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Electrical conductivity	Yearly	-	-	µm/cm	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Oil and Grease	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	pH	Yearly	-	-	pH	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Standing Water Level	Yearly	-	-	m	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Sulfate	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
DLP7	Ammonia	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Chloride	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Electrical conductivity	Yearly	-	-	µm/cm	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Oil and Grease	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	pH	Yearly	-	-	pH	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Standing Water Level	Yearly	-	-	m	0/1/00	Y		0/1/00	0/1/00	NRR	0
0	Sulfate	Yearly	-	-	mg/L	0/1/00	Y		0/1/00	0/1/00	NRR	0

**Site: Humes - Blacktown**

Environment Protection Licence No.	1310
Site Name (As it appears on the licence)	Humes Blacktown
Site Address (As it appears on the licence)	Humes Blacktown Lot 1 Woodstock Ave ROOTY HILL NSW 2766
Link to Licence on EPA Website	<a href="http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=35038&amp;SYSUID=1&amp;LICID=1310">http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=35038&amp;SYSUID=1&amp;LICID=1310</a>

Water												
Sediment Basin	TSS	Daily During Discharge		50	mg/L	5/3/18	Y					8.3
	pH	Daily During Discharge	6.5	8.5	pH	5/3/18	Y					8.2
Sediment Basin	TSS	Daily During Discharge		50	mg/L		Y					NRR
	pH	Daily During Discharge	6.5	8.5	pH		Y					NRR
Sediment Basin	TSS	Daily During Discharge		50	mg/L		Y					NRR
	pH	Daily During Discharge	6.5	8.5	pH		Y					NRR
Sediment Basin	TSS	Daily During Discharge		50	mg/L		Y					NRR
	pH	Daily During Discharge	6.5	8.5	pH		Y					NRR
Sediment Basin	TSS	Daily During Discharge		50	mg/L		Y					NRR
	pH	Daily During Discharge	6.5	8.5	pH		Y					NRR
Sediment Basin	TSS	Daily During Discharge		50	mg/L		Y					NRR
	pH	Daily During Discharge	6.5	8.5	pH		Y					NRR
Sediment Basin	TSS	Daily During Discharge		50	mg/L		Y					NRR
	pH	Daily During Discharge	6.5	8.5	pH		Y					NRR
Sediment Basin	TSS	Daily During Discharge		50	mg/L		Y					NRR
	pH	Daily During Discharge	6.5	8.5	pH		Y					NRR
Sediment Basin	TSS	Daily During Discharge		50	mg/L		Y					NRR
	pH	Daily During Discharge	6.5	8.5	pH		Y					NRR
Sediment Basin	TSS	Daily During Discharge		50	mg/L		Y					NRR
	pH	Daily During Discharge	6.5	8.5	pH		Y					NRR

**Site: Teven Quarry**

Environment Protection Licence No.	<b>3293</b>
Site Name (As it appears on the licence)	Readymix Teven Quarry
Site Address (As it appears on the licence)	Stokers Lane Teven NSW 2478
Link to Licence on EPA Website	<a href="http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=85921&amp;SYSUID=1&amp;LICID=3293">http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=85921&amp;SYSUID=1&amp;LICID=3293</a>

Blasting											Time of Blast	
ID #1	pH	Weekly	6.5	8.5	pH	5/7/18	Y					8.3
ID #1	pH	Weekly	6.5	8.5	pH	14/5/18	Y					8.2
ID #1	Oil&Grease	Yearly during discharge (August)	0	10	mg/L		Y					NRR
ID #1	TSS	Yearly during discharge (August)	0	50	mg/L		Y					NRR
Noise												
144 Stokers Lane - Murphy's Residence	dB(A) L Aeq 15 min	Not specified	0	46	dB		Y					NRR

**Site: Boambee Quarry**

Environment Protection Licence No.	<b>7094</b>
Site Name (As it appears on the licence)	Boambee Quarry
Site Address (As it appears on the licence)	Boambee Quarry North Boambee Road BOAMBE NSW 2450
Link to Licence on EPA Website	<a href="http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=106484&amp;SYSUID=1&amp;LICID=7094">http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=106484&amp;SYSUID=1&amp;LICID=7094</a>

Blasting (M4 & L2.1 - To determine compliance with L3, measurements to be taken at any point within 1 metre of residential boundary)											Time of Blast		
	Overpressure	Per blast	0	120	dB	15/05/18	Y	0/1/00	15/05/18			NRR	Shot 194
	Vibration	Per blast	0	10	mm/s	15/05/18	Y	0/1/00	15/05/18			NRR	Shot 194
	Overpressure	Per blast	0	120	dB		Y					NRR	
	Vibration	Per blast	0	10	mm/s		Y					NRR	
	Overpressure	Per blast	0	120	dB		Y					NRR	
	Vibration	Per blast	0	10	mm/s		Y					NRR	
	Overpressure	Per blast	0	120	dB		Y					NRR	
	Vibration	Per blast	0	10	mm/s		Y					NRR	

**Site: Tuncurry Sand**

Environment Protection Licence No.	<b>13359</b>
Site Name (As it appears on the licence)	Tuncurry Sand Quarry
Site Address (As it appears on the licence)	Tip Road Tuncurry NSW 2428
Link to Licence on EPA Website	<a href="http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=47350&amp;SYSUID=1&amp;LICID=13359">http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=47350&amp;SYSUID=1&amp;LICID=13359</a>

Water												
ID#2 Surface H20 "Lake 1"	Aresnic	Quarterly	0		mg/L		Y					NRR
	Conductivity	Quarterly	0		µS/cm	5/8/18	Y	5/8/18	5/10/18			169
	Copper	Quarterly	0		mg/L		Y					NRR
	Iron	Quarterly	0		mg/L		Y					NRR
	pH	Quarterly	0		pH	5/8/18	Y	5/8/18	5/10/18			7
	Zinc	Quarterly	0		mg/L		Y					NRR
ID#3 Surface H20 "Lake 2"	Aresnic	Quarterly	0		mg/L		Y					NRR
	Conductivity	Quarterly	0		µS/cm	5/8/18	Y	5/8/18	5/10/18			250
	Copper	Quarterly	0		mg/L		Y					NRR
	Iron	Quarterly	0		mg/L		Y					NRR

	pH	Quarterly	0		pH	5/8/18	Y	5/8/18	5/10/18		7
	Zinc	Quarterly	0		mg/L		Y				NRR
ID#4 Surface H20 "Lake 3"	Aresnic	Quarterly	0		mg/L		Y				NRR
	Conductivity	Quarterly	0		µS/cm	5/8/18	Y	5/8/18	5/10/18		295
	Copper	Quarterly	0		mg/L		Y				NRR
	Iron	Quarterly	0		mg/L		Y				NRR
	pH	Quarterly	0		pH	5/8/18	Y	5/8/18	5/10/18		7.4
	Zinc	Quarterly	0		mg/L		Y				NRR
ID#5 Surface H20 "Lake 4"	Aresnic	Quarterly	0		mg/L		Y				NRR
	Conductivity	Quarterly	0		µS/cm	5/8/18	Y	5/8/18	5/10/18		359
	Copper	Quarterly	0		mg/L		Y				NRR
	Iron	Quarterly	0		mg/L		Y				NRR
	pH	Quarterly	0		pH	5/8/18	Y	5/8/18	5/10/18		7.3
	Zinc	Quarterly	0		mg/L		Y				NRR
<b>Air</b>											
ID #1	Deposited Matter	Monthly	0	4	g/m2/month	5/8/18	Y	5/8/18	18/5/2018		3.6

**Site: Jandra Quarry**

Environment Protection Licence No.	2796
Site Name (As it appears on the licence)	Jandra Quarry
Site Address (As it appears on the licence)	Pacific Highway Possum Brush NSW 2430
Link to Licence on EPA Website	<a href="http://app.epa.nsw.gov.au/prpocapp/ViewPOELicence.aspx?DOCID=87197&amp;SYSUID=1&amp;LICID=2796">http://app.epa.nsw.gov.au/prpocapp/ViewPOELicence.aspx?DOCID=87197&amp;SYSUID=1&amp;LICID=2796</a>

<b>Water</b>											
ID #1	Discharge pH	Each overflow event	6.5	8.5	pH		Y				NRR
ID #1	Discharge TSS	2 X Daily during discharge	0	50	mg/L		Y				NRR
ID #1	Discharge TSS	2 X Daily during discharge	0	50	mg/L		Y				NRR
ID #1	Discharge Turbidity	2 X Daily during discharge	0		ntu		Y				NRR
ID #1	Discharge Turbidity	2 X Daily during discharge	0		ntu		Y				NRR
ID #1	Discharge pH	Each overflow event	6.5	8.5	pH		Y				NRR
ID #1	Discharge TSS	2 X Daily during discharge	0	50	mg/L		Y				NRR
ID #1	Discharge TSS	2 X Daily during discharge	0	50	mg/L		Y				NRR
ID #1	Discharge Turbidity	2 X Daily during discharge	0		ntu		Y				NRR
ID #1	Discharge Turbidity	2 X Daily during discharge	0		ntu		Y				NRR
ID #1	Discharge pH	Each overflow event	6.5	8.5	pH		Y				NRR
DD 1	Insoluble Solids	Monthly	0	4							
DD 2	Insoluble Solids	Monthly	0	4	mg/m2/month	5/8/18	Y	5/8/18	17/5/2018		0.4
DD 3	Insoluble Solids	Monthly	0	4	mg/m2/month	5/8/18	Y	5/8/18	17/5/2018		0.7
DD 4	Insoluble Solids	Monthly	0	4	mg/m2/month	5/8/18	Y	5/8/18	17/5/2018		0.5
HVAS 1	Insoluble Solids	Monthly	0	4	mg/m2/month	5/8/18	Y	5/8/18	17/5/2018		0.4
HVAS 1	PM10	24hr (every 6 days)	0	50	µg/m3		Y				NRR
HVAS 1	PM10	24hr (every 6 days)	0	50	µg/m3		Y				NRR
HVAS 2	PM10	24hr (every 6 days)	0	50	µg/m3		Y				NRR
HVAS 2	PM10	24hr (every 6 days)	0	50	µg/m3		Y				NRR
HVAS 2	PM10	24hr (every 6 days)	0	50	µg/m3		Y				NRR
<b>Blasting (To determine compliance with L3, measurements to be taken at any point within 1 metre of residential boundary)</b>											
<b>Time of Blast</b>											
	Overpressure	Per blast	0	120	dB		Y				NRR
	Vibration	Per blast	0	10	mm/s		Y				NRR
	Overpressure	Per blast	0	120	dB		Y				NRR
	Vibration	Per blast	0	10	mm/s		Y				NRR
	Overpressure	Per blast	0	120	dB		Y				NRR
	Vibration	Per blast	0	10	mm/s		Y				NRR
	Overpressure	Per blast	0	120	dB		Y				NRR
	Vibration	Per blast	0	10	mm/s		Y				NRR
<b>Annual Blasting Requirements ( Calculated each month on a cummulative basis)</b>											
	Overpressure	Monthly (Cummulative)	115	120	dB		Y				NRR
	Vibration	Monthly (Cummulative)	5	10	mm/s		Y				NRR