



Attachment 4.1H - Environmental Monitoring Worksheet

Period: **16/09/2018** - **30/09/2018**

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								

NRR = No Result Recorded

Site: Albion Park Quarry

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	http://app.epa.nsw.gov.au/prpoeoapp/ViewPOELicence.aspx?DOCID=54925&SYSUID=1&LICID=122

Water

Point	Test	Frequency	Min Limit	Max Limit	Units	Sample Date	NSW EPA Licence Requirement	Date Sample Transferred to Laboratory	Date Sample Results Received by Holcim	Date of Remote Data Download	Result	Comments
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

Point	Test	Frequency	Min Limit	Max Limit	Units	Sample Date	NSW EPA Licence Requirement	Date Sample Transferred to Laboratory	Date Sample Results Received by Holcim	Date of Remote Data Download	Result	Comments
Point 3	Ash	Monthly		90			Y				NRR	
Point 4	Ash	Monthly		90			Y				NRR	
Point 5	Ash	Monthly		90			Y				NRR	
Point 6	Ash	Monthly		90			Y				NRR	

Blasting

Point	Test	Frequency	Min Limit	Max Limit	Units	Sample Date	NSW EPA Licence Requirement	Date Sample Transferred to Laboratory	Date Sample Results Received by Holcim	Date of Remote Data Download	Result	Comments
93RL	Per Blast			5	mm/s		Y				0.57	
				115	dB		Y				105	
	Per Blast			5	mm/s		Y				NRR	
				115	dB		Y				NRR	
	Per Blast			5	mm/s		Y				NRR	
				115	dB		Y				NRR	
	Per Blast			5	mm/s		Y				NRR	
				115	dB		Y				NRR	
	Per Blast			5	mm/s		Y				NRR	
				115	dB		Y				NRR	
	Per Blast			5	mm/s		Y				NRR	
				115	dB		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/prpocapp/ViewPOEOLicence.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/prpocapp/ViewPOEOLicence.aspx?DOCID=105521&SYSUID=1&LICID=12939>

Air										
DD 5	Insoluble Solids	Monthly	0	4	mg/m2/month	17/9/18	Y	17/9/18	24/9/18	3/1/00
DD 8	Insoluble Solids	Monthly	0	4	mg/m2/month	17/9/18	Y	17/9/18	24/9/18	0/1/00
DD 11	Insoluble Solids	Monthly	0	4	mg/m2/month	17/9/18	Y	17/9/18	24/9/18	1/1/00
DD 12	Insoluble Solids	Monthly	0	4	mg/m2/month	17/9/18	Y	17/9/18	24/9/18	0/1/00
DD 13	Insoluble Solids	Monthly	0	4	mg/m2/month	17/9/18	Y	17/9/18	24/9/18	1.70
HVAS 1	PM10	24hr (every 6 days)	0	50	µg/m3	22/9/18	Y	24/9/18	27/9/18	14.40
HVAS 1	PM10	24hr (every 6 days)	0	50	µg/m3	0/1/00	Y	12:00:00 AM	12:00:00 AM	NRR
HVAS 1	PM10	24hr (every 6 days)	0	50	µg/m3	0/1/00	Y	12:00:00 AM	12:00:00 AM	NRR
HVAS 2	PM10	24hr (every 6 days)	0	50	µg/m3	22/9/18	Y	24/9/18	27/9/18	15.10
HVAS 2	PM10	24hr (every 6 days)	0	50	µg/m3	0/1/00	Y	12:00:00 AM	12:00:00 AM	NRR
HVAS 2	PM10	24hr (every 6 days)	0	50	µg/m3	0/1/00	Y	12:00:00 AM	12:00:00 AM	NRR

Blasting										
Time of Blast										
B4 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	18/09/2018	Y	10:59:00 AM		0.00
B4 - Resident	Overpressure	Per Blast	0	115	dB	18/09/2018	Y	10:59:00 AM		0.00
B5 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	18/09/2018	Y	10:59:00 AM		0.00
B5 - Resident	Overpressure	Per Blast	0	115	dB	18/09/2018	Y	10:59:00 AM		0.00
B6 - Rail	Peak Particle Velocity	Per Blast	0	25	mm/sec	18/09/2018	Y	10:59:00 AM		0.81
B6 - Pipeline	Peak Particle Velocity	Per Blast	0	100	mm/sec	18/09/2018	Y	10:59:00 AM		0.81
B4 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	20/09/2018	Y	12:38:00 PM		0.00
B4 - Resident	Overpressure	Per Blast	0	115	dB	20/09/2018	Y	12:38:00 PM		0.00
B5 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	20/09/2018	Y	12:38:00 PM		0.00
B5 - Resident	Overpressure	Per Blast	0	115	dB	20/09/2018	Y	12:38:00 PM		0.00
B6 - Rail	Peak Particle Velocity	Per Blast	0	25	mm/sec	20/09/2018	Y	12:38:00 PM		0.00
B6 - Pipeline	Peak Particle Velocity	Per Blast	0	100	mm/sec	20/09/2018	Y	12:38:00 PM		0.00
B4 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B4 - Resident	Overpressure	Per Blast	0	115	dB	0/1/00	Y	12:00:00 AM		NRR
B5 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B5 - Resident	Overpressure	Per Blast	0	115	dB	0/1/00	Y	12:00:00 AM		NRR
B6 - Rail	Peak Particle Velocity	Per Blast	0	25	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B6 - Pipeline	Peak Particle Velocity	Per Blast	0	100	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B4 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B4 - Resident	Overpressure	Per Blast	0	115	dB	0/1/00	Y	12:00:00 AM		NRR
B5 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B5 - Resident	Overpressure	Per Blast	0	115	dB	0/1/00	Y	12:00:00 AM		NRR
B6 - Rail	Peak Particle Velocity	Per Blast	0	25	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B6 - Pipeline	Peak Particle Velocity	Per Blast	0	100	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B4 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B4 - Resident	Overpressure	Per Blast	0	115	dB	0/1/00	Y	12:00:00 AM		NRR
B5 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	0/1/00	Y	12:00:00 AM		NRR
B5 - Resident	Overpressure	Per Blast	0	115	dB	0/1/00	Y	12:00:00 AM		NRR

B5 - Resident	Peak Particle Velocity	Per Blast	0	5	mm/sec	0/1/00	Y	12:00:00 AM			NRR
B5 - Resident	Overpressure	Per Blast	0	115	dB	0/1/00	Y	12:00:00 AM			NRR
B6 - Rail	Peak Particle Velocity	Per Blast	0	25	mm/sec	0/1/00	Y	12:00:00 AM			NRR
B6 - Pipeline	Peak Particle Velocity	Per Blast	0	100	mm/sec	0/1/00	Y	12:00:00 AM			NRR

Site: Cooma Road Quarry

Environment Protection Licence No.	1453
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	http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=32932&SYSUID=1&LICID=1453

Water											
Barracks Creek	pH	Monthly	6.5	8.5	pH		Y				NRR
	Total O&G	Monthly	0	10	mg/L		Y				NRR
	Susp. Solids	Monthly	0	50	mg/L		Y				NRR

Blasting											
Time of Blast											
Heffernans House	Overpressure	Per blast	0	115	dB	21/9/2018	Y				107.7
	Vibration	Per blast	0	5	mm/s	21/9/2018	Y				0.43
Heffernans House	Overpressure	Per blast	0	115	dB		Y				NRR
	Vibration	Per blast	0	5	mm/s		Y				NRR
Heffernans House	Overpressure	Per blast	0	115	dB		Y				NRR
	Vibration	Per blast	0	5	mm/s		Y				NRR
Heffernans House	Overpressure	Per blast	0	115	dB		Y				NRR
	Vibration	Per blast	0	5	mm/s		Y				NRR

Site: Dubbo Quarry

Environment Protection Licence No.	2212
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	http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=42179&SYSUID=1&LICID=2212

Blasting											
Time of Blast											
WARRENS HOUSE	Overpressure	Per blast		120	dB		Y				NRR
	Vibration	Per blast		10	mm/s		Y				NRR
WARRENS HOUSE	Overpressure	Per blast		120	dB		Y				NRR
	Vibration	Per blast		10	mm/s		Y				NRR
WARRENS HOUSE	Overpressure	Per blast		120	dB		Y				NRR
	Vibration	Per blast		10	mm/s		Y				NRR
WARRENS HOUSE	Overpressure	Per blast		120	dB		Y				NRR
	Vibration	Per blast		10	mm/s		Y				NRR

Site: Dunloe Sands Quarry

Environment Protection Licence No.	13077
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	http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=134905&SYSUID=1&LICID=13077

Water - *Frequency is as per 'Special Frequency 1' referred to in Condition M2.3 of EPL												
Silt Pond discharge monitoring point 0	Discharge pH	<24 hours prior to overflow event*	6.5	8.5	pH	0/1/00	Y				NRR	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	
0	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	
Groundwater													
DLP1	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
DLP2	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
DLP3	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	http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLlicence.aspx?DOCID=35038&SYSUID=1&LICID=1310

Water												
Sediment Basin	TSS	Daily During Discharge		50	mg/L	18/9	Y					27
	pH	Daily During Discharge	6.5	8.5	pH	18/9	Y					7.4
Sediment Basin	TSS	Daily During Discharge		50	mg/L	19/9	Y					16
	pH	Daily During Discharge	6.5	8.5	pH	19/9	Y					7.36
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.	3293
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166 Weller's Road, Teven (or Receiver No. 2 in Cousworth)	Daytime - LAeq (15 min)	Yearly	0	37	dB (A)		Y				NRR
166 Weller's Road, Teven (or Receiver No. 2 in Sun) - LAeq (15 min)	Evening (8am-10pm Mon - Sun) - LAeq (15 min)	Yearly	0	35	dB (A)		Y				NRR
Blasting											
Time of Blast											
affected residential	Overpressure	Per Blast	0	115	dB	0/1/00	Y	0/1/00	0/1/00	0/1/00	NRR
affected residential	Peak Particle Velocity	Per Blast	0	5	mm/sec	0/1/00	Y	0/1/00	0/1/00	0/1/00	NRR
affected residential	Overpressure	Per Blast	0	115	dB	0/1/00	Y	0/1/00	0/1/00	0/1/00	NRR
affected residential	Peak Particle Velocity	Per Blast	0	5	mm/sec	0/1/00	Y	0/1/00	0/1/00	0/1/00	NRR

Site: Boambee Quarry

Environment Protection Licence No.	7094
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	http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=108484&SYSUID=1&LICID=7094

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		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

Site: Tuncurry Sand

Environment Protection Licence No.	13359
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	http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=47350&SYSUID=1&LICID=13359

Water											
ID#2 Surface H20 "Lake 1"	Arsenic	Quarterly	0		mg/L		Y				NRR
	Conductivity	Quarterly	0		µS/cm		Y				NRR
	Copper	Quarterly	0		mg/L		Y				NRR
	Iron	Quarterly	0		mg/L		Y				NRR
	pH	Quarterly	0		pH		Y				NRR
	Zinc	Quarterly	0		mg/L		Y				NRR
ID#3 Surface H20 "Lake 2"	Arsenic	Quarterly	0		mg/L		Y				NRR
	Conductivity	Quarterly	0		µS/cm		Y				NRR
	Copper	Quarterly	0		mg/L		Y				NRR
	Iron	Quarterly	0		mg/L		Y				NRR
	pH	Quarterly	0		pH		Y				NRR
	Zinc	Quarterly	0		mg/L		Y				NRR
ID#4 Surface H20 "Lake 3"	Arsenic	Quarterly	0		mg/L		Y				NRR
	Conductivity	Quarterly	0		µS/cm		Y				NRR
	Copper	Quarterly	0		mg/L		Y				NRR
	Iron	Quarterly	0		mg/L		Y				NRR
	pH	Quarterly	0		pH		Y				NRR
	Zinc	Quarterly	0		mg/L		Y				NRR
ID#5 Surface H20 "Lake 4"	Arsenic	Quarterly	0		mg/L		Y				NRR

	Conductivity	Quarterly	0		µS/cm		Y				NRR
	Copper	Quarterly	0		mg/L		Y				NRR
	Iron	Quarterly	0		mg/L		Y				NRR
	pH	Quarterly	0		pH		Y				NRR
	Zinc	Quarterly	0		mg/L		Y				NRR
Air											
ID #1	Deposited Matter	Monthly	0	4	g/m2/month		Y				NRR

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	http://app.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=87197&SYSUID=1&LICID=2796

Water											
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		Y				NRR
DD 3	Insoluble Solids	Monthly	0	4	mg/m2/month		Y				NRR
DD 4	Insoluble Solids	Monthly	0	4	mg/m2/month		Y				NRR
HVAS 1	Insoluble Solids	Monthly	0	4	mg/m2/month		Y				NRR
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
Blasting (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		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
Annual Blasting Requirements (Calculated each month on a cumulative basis)											
	Overpressure	Monthly (Cumulative)	115	120	dB		Y				NRR
	Vibration	Monthly (Cumulative)	5	10	mm/s		Y				NRR