Pollution Monitoring Data - Holcim Jandra Quarry (EPL Number 2796)

Facility Address	Pacific Highway, Possum Brush, NSW 2430
Link to EPL on Public Register	https://apps.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=2796&id=2796&option=licence&searchrange=licence&range=POEO%20licence&prp=no&status=Issued
Date Dataset Updated	Thursday, February 20, 2020

Air Quality Monitoring - Hi Volume Sampler Results

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description
EPA Point 11 (Receiver Location R1)	24 Hours (Every 6 days)	EPL 2796 - Clause M2.2 & Jandra Quarry Air Quality Management Plan	-	50	µg/m3	Particulate Matter < 10 µm (PM10)

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Result (Mean)	23.7	19.0	21.2	17.1	18.7	9.0	10.7	18.7	15.1	9.2	58.9	27.0
Pass / Fail	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Fail	Pass

Comments regarding Hi Volume Sample Monitoring Outcomes	
Comment 1:	September 2019: Result obtained for 17/9/19 was recorded over a 17.8hr duration.
Comment 2:	November 2019 - Heavy smoke haze in the area contributing to a high result
Comment 3:	

Air Quality Monitoring - Deposition Results

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description		January 15/01/2019	February 12/02/2019	March 13/03/2019	April 10/04/2019	May 09/05/2019	June 06/06/2019
EPA 18 Jandra D1 Northern Boundary	Monthly	EPL Section P1	-	4	mg/m2/month	Insoluble Solids	Result	1.3	1.2	4.4	0.7	0.2	0.6
							Pass / Fail	**Pass**	**Pass**	**Fail**	**Pass**	**Pass**	**Pass**
EPA 19 Jandra D2 Southern Boundary	Monthly	EPL Section P1	-	4	mg/m2/month	Insoluble Solids	Result	2	1.8	4	1.9	0.9	0.4
							Pass / Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
EPA 20 Jandra D3 Eastern Boundary	Monthly	EPL Section P1	-	4	mg/m2/month	Insoluble Solids	Result	1.8	1.2	4.6	1	0.7	0.4
							Pass / Fail	**Pass**	**Pass**	**Fail**	**Pass**	**Pass**	**Pass**
EPA 21 Jandra D4 Western Boundary	Monthly	EPL Section P1	-	4	mg/m2/month	Insoluble Solids	Result	0.6	0.7	3.3	1.1	0.9	0.4
							Pass / Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description		July 08/07/2019	August 05/08/2019	September 05/09/2019	October 03/10/2019	November 04/11/2019	December 08/01/2020
EPA 18 Jandra D1 Northern Boundary	Monthly	EPL Section P1	-	4	mg/m2/month	Insoluble Solids	Result	0.2	0.2	0.2	1	1.6	0.7
							Pass / Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
EPA 19 Jandra D2 Southern Boundary	Monthly	EPL Section P1	-	4	mg/m2/month	Insoluble Solids	Result	0.2	0.8	1	1	1.3	1.1
							Pass / Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
EPA 20 Jandra D3 Eastern Boundary	Monthly	EPL Section P1	-	4	mg/m2/month	Insoluble Solids	Result	0.2	0.7	1	1.3	1.8	1
							Pass / Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
EPA 21 Jandra D4 Western Boundary	Monthly	EPL Section P1	-	4	mg/m2/month	Insoluble Solids	Result	0.3	0.6	0.9	0.8	1.4	0.7
							Pass / Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

Comments regarding deposition monitoring outcomes	
Comment 1:	
Comment 2:	
Comment 3:	

Noise Monitoring Results

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description		Q1 12/3/2019	Q2 29/5/2019	Q3 19/9/2019	Q4 27/11/2019
EPA Point 13 Monitoring Location R2	Quarterly	EPL Section L4 .2	-	36	dB	LAeq (15 min) Shoulder / Day	Result	<35	<35	<35	<35
							Pass / Fail	Pass	Pass	Pass	Pass
			-	36	dB	LAeq (15 min) Day	Result	<35	<35	<35	<35
							Pass / Fail	Pass	Pass	Pass	Pass

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description		Q1 12/3/2019	Q2 29/5/2019	Q3 19/9/2019	Q4 27/11/2019
EPA Point 14 Monitoring Location R4	Quarterly	EPL Section L4 .2	-	36	dB	LAeq (15 min) Shoulder / Day	Result	<30	<35	<35	<35
							Pass / Fail	Pass	Pass	Pass	Pass
			-	36	dB	LAeq (15 min) Day	Result	<30	<35	<35	<35
							Pass / Fail	Pass	Pass	Pass	Pass

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description		Q1 12/3/2019	Q2 29/5/2019	Q3 19/9/2019	Q4 27/11/2019
EPA Point 15 Monitoring Location R5	Quarterly	EPL Section L4 .2	-	40	dB	LAeq (15 min) Shoulder / Day	Result	<30	<35	<35	<35
							Pass / Fail	Pass	Pass	Pass	Pass
			-	40	dB	LAeq (15 min) Day	Result	<30	<35	<35	<35
							Pass / Fail	Pass	Pass	Pass	Pass

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description		Q1 12/3/2019	Q2 29/5/2019	Q3 19/9/2019	Q4 27/11/2019
EPA Point 16 Monitoring Location R6	Quarterly	EPL Section L4 .2	-	36	dB	LAeq (15 min) Shoulder / Day	Result	<35	<35	<35	<35
							Pass / Fail	Pass	Pass	Pass	Pass
			-	36	dB	LAeq (15 min) Day	Result	<35	<35	<35	<35
							Pass / Fail	Pass	Pass	Pass	Pass

Noise Monitoring Results (Cont ...)

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description		Q1 12/3/2019	Q2 29/5/2019	Q3 19/9/2019	Q4 27/11/2019
EPA Point 17 Monitoring Location R7	**Quarterly**	**EPL Section L4 .2**	-	35	dB	LAeq (15 min) Shoulder / Day	Result	<35	<35	<35	<35
							Pass / Fail	Pass	Pass	Pass	Pass
			-	35	dB	LAeq (15 min) Day	Result	<35	<35	<35	<35
							Pass / Fail	Pass	Pass	Pass	Pass

Comments regarding noise monitoring outcomes	
Comment 1:	EPL Section L4 sets out noise limits but no testing frequency.
Comment 2:	The EPL (section L4.2) states that we must ensure limits are met so a quarterly testing frequency has been applied in line with other management plans.
Comment 3:	

Surface Water Monitoring Results

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description	Sample Date	31/1/2019	28/2/2019	31/3/2019	30/4/2019	31/5/2019	30/6/2019
EPA Point 1 **Discharge Point from Final Sediment Dam**	Each Event	EPL Section L2.4 Section M2.3	6.5	8.5	pH	pH	Result	Dry	Dry	Dry	Dry	Dry	Dry
							Pass / Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 Times Daily During Discharge	EPL Section L2.4 Section M2.3	-	50	mg/L	Total Suspended Solids (TSS) Daily Test #1	Result	Dry	Dry	Dry	Dry	Dry	Dry
							Pass / Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
			-	50	mg/L	Total Suspended Solids (TSS) Daily Test #2	Result	Dry	Dry	Dry	Dry	Dry	Dry
							Pass / Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 Times Daily During Discharge	EPL Section L2.4 Section M2.3	-	50	NTU	Turbidity Daily Test #1	Result	Dry	Dry	Dry	Dry	Dry	Dry
							Pass / Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
			-	50	NTU	Turbidity Daily Test #2	Result	Dry	Dry	Dry	Dry	Dry	Dry
							Pass / Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description	Sample Date	31/7/2019	31/8/2019	30/9/2019	31/10/2019	30/11/2019	31/12/2019
EPA Point 1 **Discharge Point from Final Sediment Dam**	Each Event	EPL Section L2.4 Section M2.3	6.5	8.5	pH	pH	Result	Dry	Dry	Dry	Dry	Dry	Dry
							Pass / Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 Times Daily During Discharge	EPL Section L2.4 Section M2.3	-	50	mg/L	Total Suspended Solids (TSS) Daily Test #1	Result	Dry	Dry	Dry	Dry	Dry	Dry
							Pass / Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
			-	50	mg/L	Total Suspended Solids (TSS) Daily Test #2	Result	Dry	Dry	Dry	Dry	Dry	Dry
							Pass / Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
	2 Times Daily During Discharge	EPL Section L2.4 Section M2.3	-	50	NTU	Turbidity Daily Test #1	Result	Dry	Dry	Dry	Dry	Dry	Dry
							Pass / Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**
			-	50	NTU	Turbidity Daily Test #2	Result	Dry	Dry	Dry	Dry	Dry	Dry
							Pass / Fail	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**	**Pass**

Comments: Add any comments regarding the surface water monitoring outcomes in the fields below	
Comment 1:	Where the quarry did not dicharge any water for the calendar month a result of "Dry" has been recorded.
Comment 2:	
Comment 3:	

Weather Monitoring Results

Reference	Frequency	Source	Unit	Total Annual Rainfall (mm)
EPL Clause M4	Daily	Site Guage	mm	

Comments regarding weather monitoring	
Comment 1:	Clause M4 of the EPL sets out the weather monitoring parameters for the site. This data was collected throughout 2019 but requires specilist contractors to download the data in a manner that can be reported here. At the time of posting this monitoring summary this data was not able to be downloaded due to availability of the specilist contractor. Once the data has been downloaded and is available for analysis the weather monitoring outcomes will be posted in a revision of this summary.

Blast Monitoring Results

Blast Monitoring - WOY 2019

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description		11/01/2019	21/01/2019	06/03/2019	06/03/2019	10/04/2019	06/05/2019
EPA Point 2 Receiver Location R4	Per Blast	EPL Clause P1.4 Section L5 Section M7	-	115	dB (Lin Peak)	Over Pressure	Result	DNT	109.9	80.8	80.8	DNT	108.3
							Pass / Fail	Pass	Pass	Pass	Pass	Pass	Pass
			-	5	mm/s	Ground Vibration	Result	DNT	0.8	0.7	0.7	DNT	2.0
							Pass / Fail	Pass	Pass	Pass	Pass	Pass	Pass

Location	Frequency	Source	Lower Limit	Upper Limit	Unit	Description		25/07/2019	08/08/2019	11/09/2019	01/11/2019
EPA Point 2 Receiver Location R4	Per Blast	EPL Clause P1.4 Section L5 Section M7	-	115	dB (Lin Peak)	Over Pressure	Result	99.9	103.5	106	DNT
							Pass / Fail	Pass	Pass	Pass	Pass
			-	5	mm/s	Ground Vibration	Result	4.3	1.0	1.1	DNT
							Pass / Fail	Pass	Pass	Pass	Pass

Comments regarding blast monitoring outcomes	
Comment 1:	DNT = "Did Not Trigger" with overpressure monitoring equipment set at a trigger point of 90 dBa or ground vibration monitoring equipment set at a trigger point of 0.1 mm/s
Comment 2:	
Comment 3:	

Annual Blast Monitoring Results

Annual Overpressure Monitoring Requirements - Maximum Overpressure

Overpressure High Range Requirement:	Source	Criteria	Outcome
The airblast overpressure level from blasting operations in or on the premises must not exceed120 dB (Lin Peak) at any time.	EPL Clause L3.1	Blast Count (YTD)	10
		Blasts with overpressure >120dB during the reporting period	0
		Annual Overpressure (Pass / Fail)	Pass

Annual Overpressure Monitoring Requirements - Overpressure High Range

Overpressure High Range Requirement:	Source	Criteria	Outcome
The airblast overpressure level from blasting operations in or on the premises must not exceed 115 dB (Lin Peak) for more than 5% of the total number of blasts during each reporting period.	EPL Clause L3.1	Blast Count (YTD)	10
		Blasts with overpressure >115dB during the reporting period	0
		% of blasts with overpressure >115dB during the reporting period	0%
		Annual Overpressure (Pass / Fail)	Pass

Annual Ground Vibration Monitoring Requirements - Maximum Ground Vibration

Overpressure High Range Requirement:	Source	Criteria	Outcome
The ground vibration peak particle velocity from blasting operations carried out in or on the premises must not exceed 10 mm/s at any time.	EPL Clause L3.2	Blast Count (YTD)	10
		Blasts with ground vibration >10 mm/s during the reporting period	0
		Annual Ground Vibration (Pass / Fail)	Pass

Annual Ground Vibration Monitoring Requirements - Ground Vibration High Range

Overpressure High Range Requirement:	Source	Criteria	Outcome
The ground vibration peak particle velocity from blasting operations carried out in or on the premises must not exceed 5mm/s for more than 5% of the total number of blasts carried out on the premises during each reporting period.	EPL Clause L3.2	Blast Count (YTD)	10
		Blasts with ground vibration >5mm/s during the reporting period	0
		% of blasts with ground vibration >5mm/s during the reporting period	0%
		Annual Ground Vibration (Pass / Fail)	Pass

Comments regarding annual blast monitoring outcomes	
Comment 1:	Quarry has been inactive throughout 2020 (YTD) and as such no monitoring has been undertaken against EPL 1371
Comment 2:	
Comment 3:	