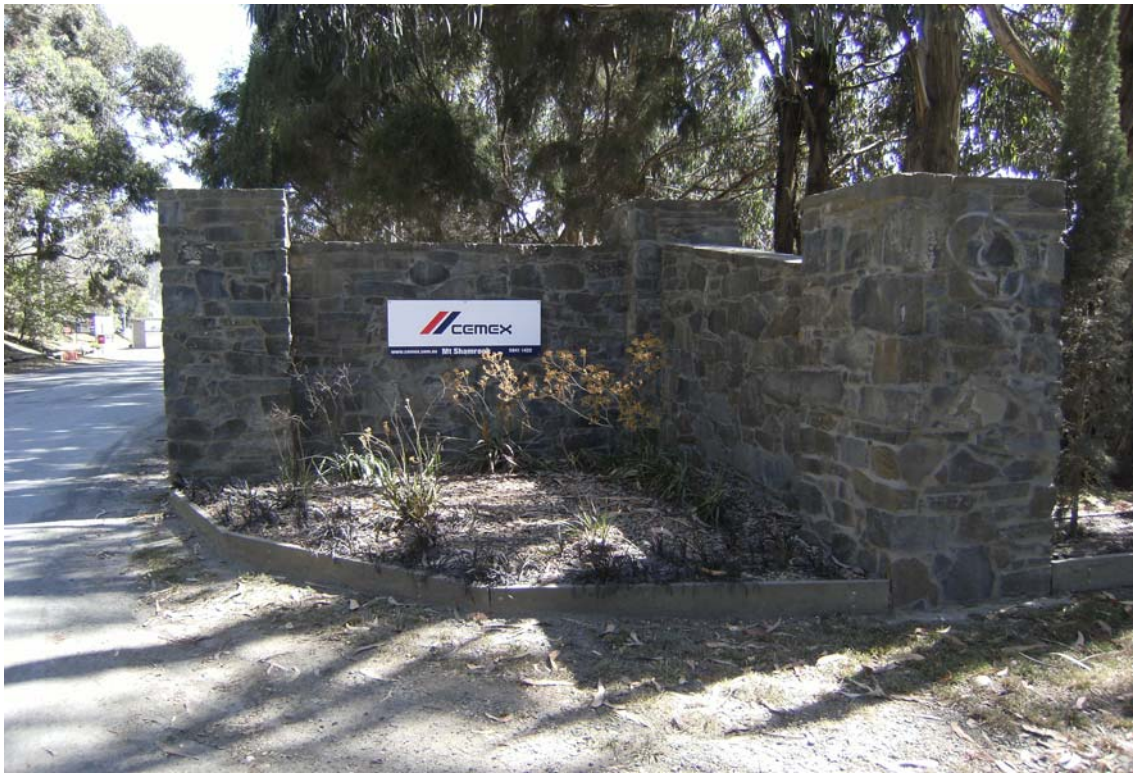

Mt Shamrock Environmental Management Plan 3 Monthly Progress Update

From 14 October 2008 – 14 January 2009

Prepared by for Mt Shamrock Quarry Environment Review Committee

On 11 March 2008, the *Mt Shamrock Quarry Environmental Management Plan Version 1:18 January 2008* (EMP) was formally enacted. This document established a framework to ensure compliance with local council, AAV, DPI, EPA and DSE requirements relating to the extension of extractive limits under Work Authority 174 (WS174). An Environment Review Committee (ERC) was formed to monitor the performance of the quarry against the EMP, the permit and WA174. The ERC consists of delegates from the relevant authorities, members of the Wurundjeri Tribe, and local residents. The ERC is chaired by an independent representative from All Possibilities Pty Ltd to ensure non-partisan administration.

This report details information on both monitoring results and management actions by the quarry in the preceding three months. This report will take the form of an exception report- that is where there is a deviance from the EMP. This will be highlighted and reasons for the deviance explained. A summary of quantifiable monitoring outcomes is also included. Figure 1.12 details all monitoring locations.

Operational Update

- Established a haul road to join east and west pits resulting in significant fuel use and carbon emission reduction
- Discussion and site visit from EPA (Lyn Denison) regarding relocation of A5 dust monitoring location and N6 noise monitoring location
- Continuance of weed control activities specifically Phase B Planting and the Donazzon property including Driveway Pitostrums and Hawthorn
- Blast monitoring point N3 has been relocated as requested at the last ERC meeting. The new location is shown on the attached map. Position was decided through consultation with D.Petty, N.Thomas & D.Vardy
- Bulk oil distribution system has been installed, this will result in significant reductions in waste related to oil drums and safety risk reduction.
- Re-design and rebuild of Conveyor 12 chute work resulting in significant reduction of dust emissions from screen house building.
- Sales remain slow at the start of the year mainly due to inclement weather.

2.1 Air Quality – Dust

Management Measure	Action	Procedure/ Reference	Responsibility	Timing
Monitoring	Continuous monitoring of PM10 after commencement of extension works, with results reviewed after 12 months.	(see s2.1.4 of EMP)	QM	All times
Monitoring	A weather monitoring station with display to be installed in the Pit Manager's office	-	PM	Within 1 month of EMP approval
Monitoring	Records of wind speed and direction will be stored for a period of 12 months for subsequent reference in case of complaints and to assist in interpreting dust montoring data.	-	PM	All times
Reporting	One (1) hourly average PM_{10} data will be provided to the Pit Manager's office from the "reactive monitoring stations"	-	PM	All times

Figure 1.1 Selected Management Actions s2.1.3

Cemex has taken delivery of dust monitoring equipment. There are now significant delays in the installation of the hardware and support systems. This is due to CEMEX not receiving technical specifications relating to the required electrical infrastructure and IT support requirements from the supplier after repeated requests. Depositional results have indicated the dust emissions tabulated below. Where asterisks exist in the table, this indicates the unit was damaged. This damage occurs primarily due to livestock and weather conditions. Fencing around the monitoring units is planned. Measures to increase the robustness of the monitoring devices to withstand extreme weather conditions are being investigated.

		A1	A2	A3	A4	A5	A6	A7
Insoluble	g/m2/month	1.2	1.4	**	**	4.2	4.3	3.9

Figure 1.2 – Depositional Results for month of November

		A1	A2	A3	A4	A5	A6	A7
Insoluble	g/m2/month	**	0.9	0.4	<0.1	2.1	2.1	0.8

Figure 1.3 – Depositional Results for month of December

2.2 Noise

Frequency of noise monitoring at all locations is now fortnightly. Average noise levels for the preceding period are shown in Table 1.2. Significant decreases in the average values at N7 have been observed at the end of the near surface extraction phase of the extension activities. Moderate decreases have been observed in all other sensitive locations due to the cessation of near surface extraction.

	N1	N2	N3	N4	N5	N6	N7	N8
November	42	41	35.5	43	39	40.5	41	42
December	36	33	34.5	41	34.5	35.5	35	39
January	37.1	32.5	35.6	40	35	36.5	34.2	38.6

Figure 1.4 - Average noise values by Sensitive Location and Month

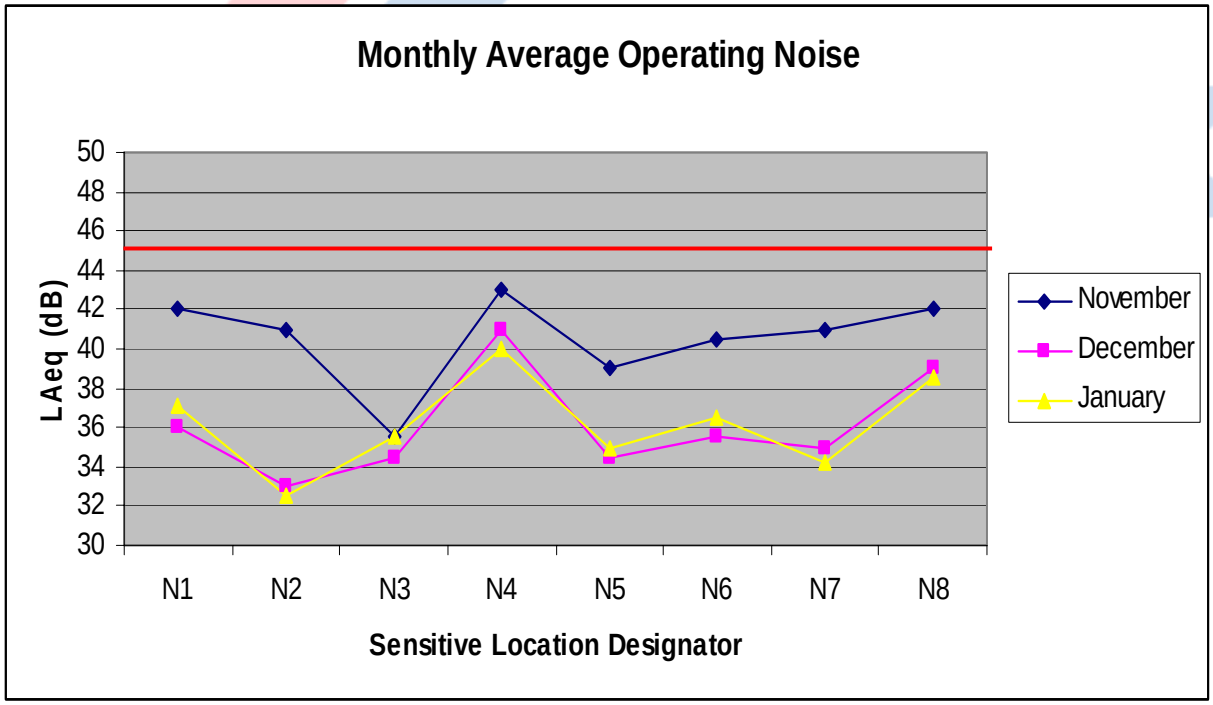

Figure 1.5 – Average Monthly Noise Value by Sensitive Location

(Limit is 45 dB under normal operating conditions)

2.3 Blasting

All blasting operations have been carried out in accordance with the standards required. Whilst some air blast measurements obtained at AB 1 may appear to fall outside the required standards, these measurements are taken from an internal monitoring point, that at times, falls within the minimum safe distance for personnel from the area being blasted. The air blast measurements that are obtained from this monitoring point during those blasts are not indicative of the actual noise translated outside of the quarry property. Measurement instruments failed to trigger at AB1, AB2 and AB4 on the 29.09.08. This is because the activation threshold in relation to ground vibration was not met by the blast and therefore there were no results for air blast overpressure recorded. The results for ground vibration were determined as 0.01 mm/s under the activation threshold.

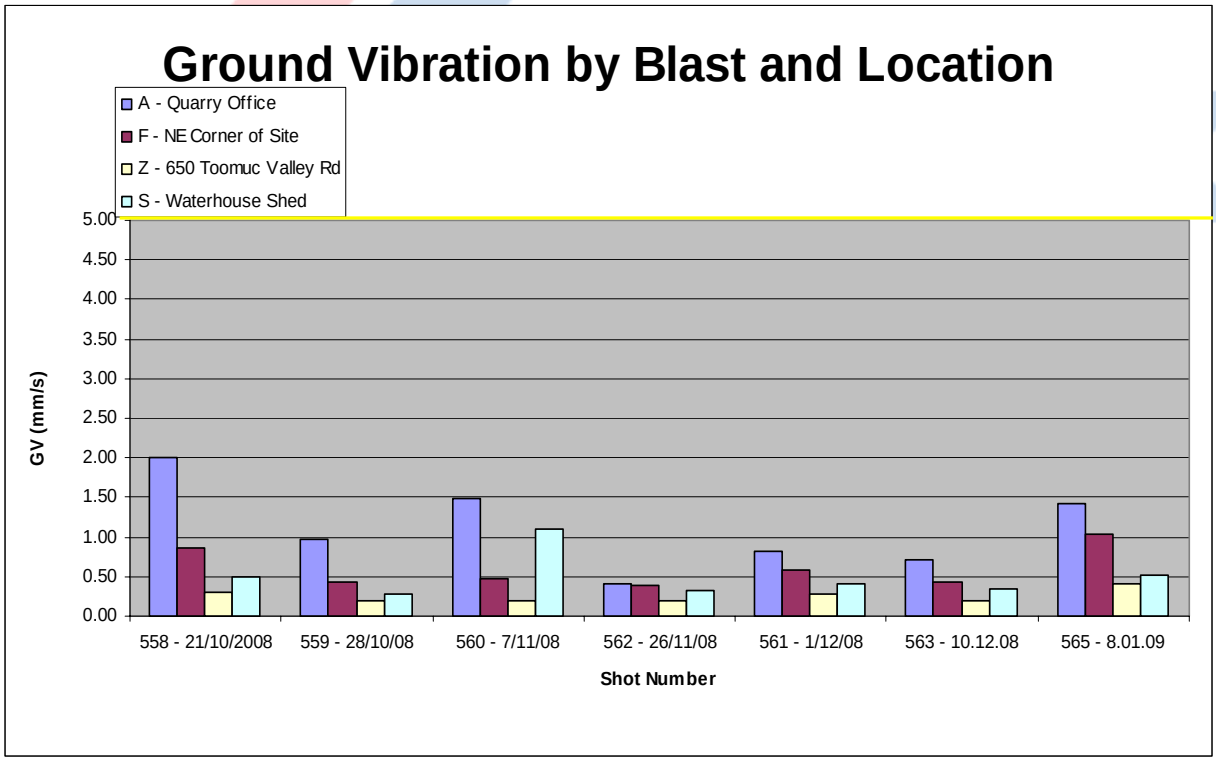

Figure 1.6- Ground Vibration by monitoring point and blast for reporting period 14 Oct – 14Jan.

(Limit is 5 mm/s for 95% of blasts in a 12 month period)

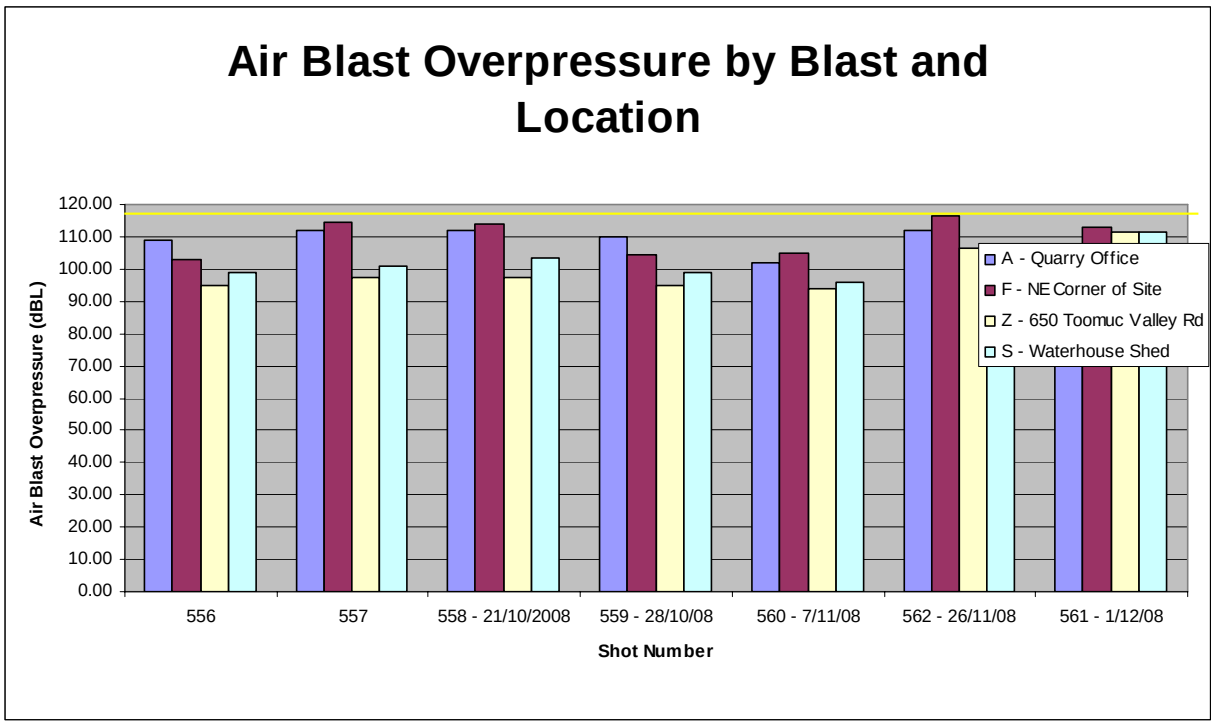

Figure 1.7- Air Blast Overpressure by monitoring point and blast for reporting period 14 Oct – 14Jan.

(Limit is 115 dBL for 95% of blasts in a 12 month period)

2.4 Surface Water, Drainage and Ground Water

Ground water measurements are due later this month and will therefore be included in the next monthly reporting period.

A surface water testing regime has been implemented with the frequency of monitoring weekly whilst discharging. Results of monitoring are tabulated below.

Date	TDS (mg/L)	pH	Turbidity (NTU)
5.11.2008	619	8.9	2.6
12.11.2008	534	8.5	2.8
27.11.2008	573	8.7	3.2
2.12.2008	537	8.8	2
11.12.2008	544	8.9	1.7

Figure 1.12 – Water sampling results

The following limits apply to water discharged from site.

TDS (mg/L)	pH	Turbidity (NTU)
650	6.5 – 9.0	30

Figure 1.13 – Discharge Limits

Limited discharge events have occurred during this period, primarily due to heavy rainfall and pump failure. All steps are taken to avoid discharge events.