



Mt Shamrock Environmental Management Plan 3 Monthly Progress Update

From August 2009 – October 2009

Prepared by D.Vardy 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

- Sales tonnes remain high during the months of August – October. Main projects driving the tonnes are Subdivisional works in the areas of Cranbourne and Lyndhurst.
- Net Gain offset management Audit completed with some improvement required in document control and weed management.
- Plans in place for late year to redesign and modify existing haul road to allow for better efficiency of our load and haul fleet.
- Local community group Outlook sent a day on site removing bags and stakes from trees in Phase A planting area.
- Outstanding actions from DPI Security and Environmental Audit have been completed. Still cleaning the graveyard closing date July 2010.

2.0 Non-Compliance and Complaints

Two complaints and one non-compliance for the reporting period.

- One complaint received for blasting on the 3/08/09, results reviewed – well within limits and no action taken.
- One non-compliance related to dust location A5, which exceeded the limit of 4 g/m²/month for month of September. Amdel are currently investigating.
- One complaint was received on the 2nd October 2009 regarding blasting. Results were reviewed and no further action required.

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 monitoring 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
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Figure 1.1 Selected Management Actions s2.1.3

All units operational awaiting report for high volume sampler from Lear Siegler; still some issues with reactive monitors (Lear Siegler currently working through issues). 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.

		A1	A2	A3	A4	A5	A6	A7
Insoluble	g/m2/month	2.4	0.5	*	1.3	1.6	1.1	2.1

Figure 1.2 – Depositional Results for month of August

		A1	A2	A3	A4	A5	A6	A7
Insoluble	g/m2/month	2.7	0.7	0.4	1.7	24	1.9	0.5

Figure 1.3 – Depositional Results for month of September

		A1	A2	A3	A4	A5	A6	A7
Insoluble	g/m2/month	1.4	0.9	1.0	1.5	0.1	4	2.7

Figure 1.4 – Depositional Results for month of October

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.

	N1	N2	N3	N4	N5	N6	N7	N8
Aug-09	37.2	35.2	34.2	35.5	34.9	42.7	41.1	40.3
Sep-09	35.4	33.6	33.1	33.9	35.3	42.2	40.5	39.8
Oct-09	35.5	34.3	33.4	34.8	34.5	41.7	40.5	40.5

Figure 1.4 Average noise values by Sensitive Location and Month

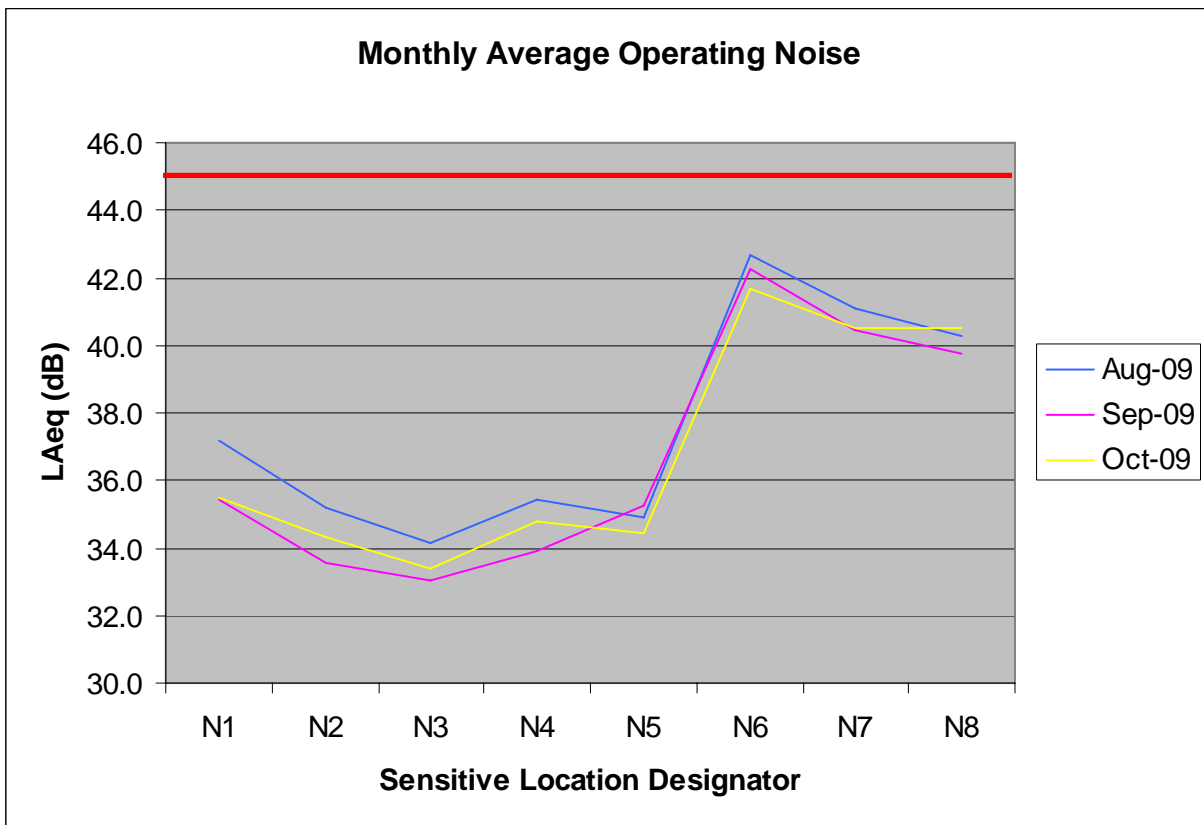


Figure 1.5 Average Monthly Noise Value by Sensitive Location
Limit is 45dB under normal operating conditions

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. .

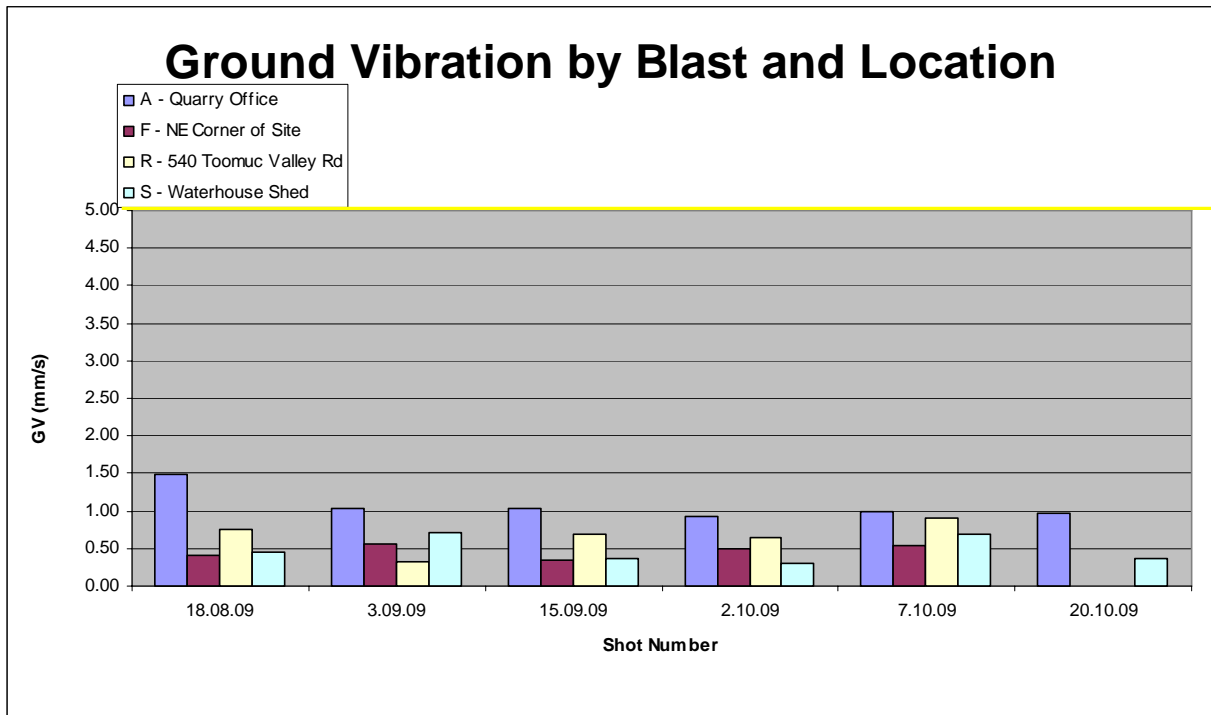


Figure 1.6 Ground Vibration by monitoring point and blast for Aug-Oct 09

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

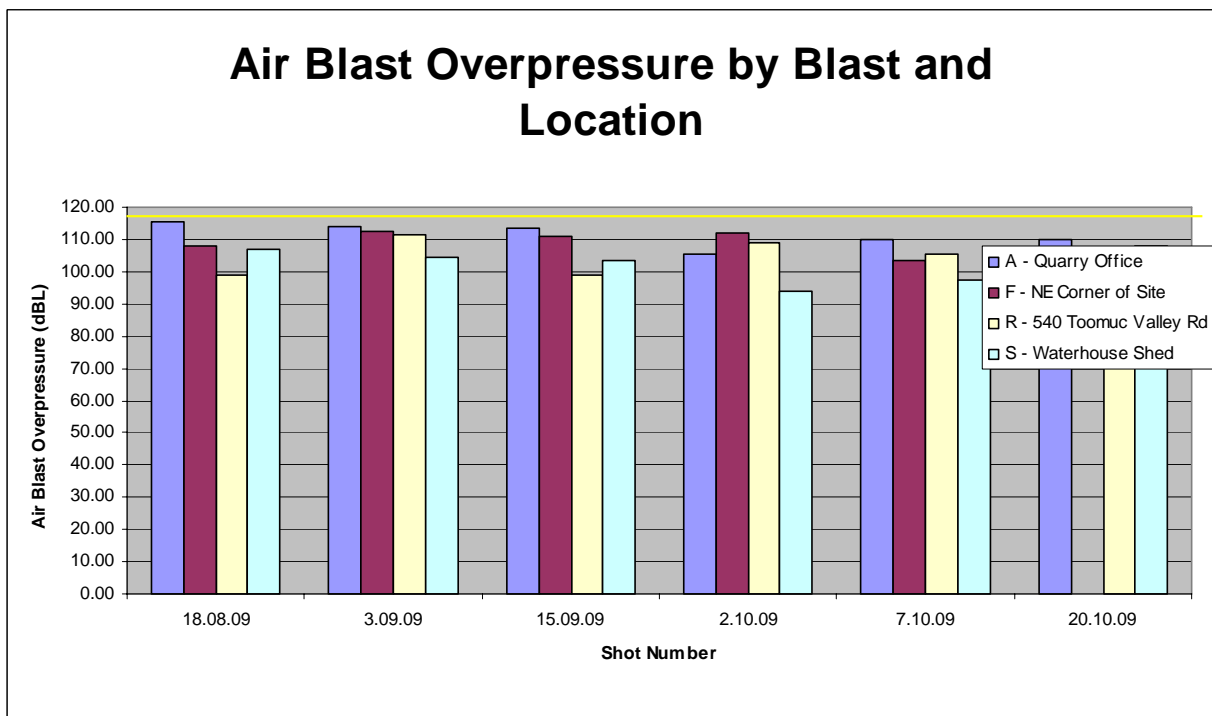


Figure 1.7 Air Blast Overpressure by monitoring location and blast for Aug-Oct 09

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

2.4 Surface Water, Drainage and Ground Water

A surface water testing regime has been implemented with the frequency of monitoring weekly. No water discharges occurred during this period. All steps are taken to avoid water discharge. Monthly testing completed by Amdel is listed below/

	pH	TDS (mg/L)	TSS (mg/L)	TOC (mg/L)
August	8.7	570	<20	4
September	8.4	400	<20	5.4
October	8.8	650	<20	5.2

The following limits apply to water discharged from site.

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

Figure 1.8 – Discharge Limits