

# Environmental Management Report – Pakenham Quarry

For Period 14<sup>th</sup> October 2008 – 14<sup>th</sup> November 2008



Compiled by A.Price

## Abstract

As the content of this report demonstrates, Cemex Pakenham has implemented a systematic, whole of site approach to environmental management and compliance with conditions of the *Mt Shamrock Quarry Environmental Management Plan Version 1: 18 January 2008*. All employees and contractors on site are aware of the necessity to conduct operations with minimal disruption to the environment and the local community. Monitoring results reflect this commitment by complying with and surpassing the standards required. The site is on track in relation to scheduled works as per the Environmental Management Plan. All non-compliances and complaints have been documented and any appropriate remedies actioned.

This report provides graphical summaries of all results obtained during the relevant monitoring period. These graphical summaries indicate averages and data trends. Any results obtained that fall outside the required standards are reported in the *Non- Compliances* section.

## Activity Synopsis

- Strong sales performance this month with sales figures reaching approximately 90,000 tonnes.
- Approximately 100,000 tonnes of rock extracted from extension area.
- Continuance of weed control activities.
- Established a haul road to join east and west pits resulting in significant fuel use and carbon emission reductions.
- Discussions and site visit from EPA (Lyn Denison) regarding relocation of A5 dust monitoring location and N6 noise monitoring location.

## EMP Variances

| Variance  | Reason  |
|---|---|
| Weather Monitoring Station not installed in pit manager's office. (2.1.3) | Installation of infrastructure underway. Awaiting IT support and hardware to finalise installation. |
| No dust monitoring (other than depositional monthly) in place. (2.1.4)    | Installation of infrastructure underway. Awaiting IT support and hardware to finalise installation. |

## Non-Compliances and Complaints

There were no results obtained during this reporting period that did not fall within the standards set out in *Mt Shamrock Quarry Environmental Management Plan Version 1: 18 January 2008*. There were no complaints received in this reporting period.

## Environmental Monitoring Results

### Results Synopsis

Results obtained during this period complied with the standards set out in *Mt Shamrock Quarry Environmental Management Plan Version 1: 18 January 2008*. Airborne dust monitoring was limited due to delays in delivery of equipment (refer EMP Variances).

## **1.1 Rehabilitation and Vegetation**

All required actions have been completed in this reporting period.

### **2.1.4 Air Quality – Dust**

Due to increased rainfall captured in the depositional monitoring units, the associated processing and measurement time of the samples has increased. These results are due on 29 of September and will be included in the subsequent EMR.

### **2.2.4 Operating Noise**

All locations returned  $L_{Aeq}$  levels lower than the standards set out in *Mt Shamrock Quarry Environmental Management Plan Version 1: 18 January 2008*. At the date of this report there had been no complaints in relation to operating noise and therefore no noise level monitoring at a complainant's residence. Refer to Figure 1.1

### **2.3.4 Blasting**

Ground Vibration and Air Blast measurements conducted by specialist consultants were all within required standards as per *Mt Shamrock Quarry Environmental Management Plan Version 1: 18 January 2008*. Refer to Figures 1.2, 1.3. During this period some measurements at the Quarry Office monitoring points (AV1 & AB1) may appear to fall outside the allowable limits, these measurements do not breach legislative requirements as it is an internal monitoring point and was inside the minimum safe distance of the blast. All external measurements on these blasts were below the required standards.

### **2.4.4 Surface and Ground Water**

Appropriate visual observations were carried out during this period. All observations were in accordance with the standards set out in *Mt Shamrock Quarry Environmental Management Plan Version 1: 18 January 2008*

| Date       | Observer        | TDS | pH  | Turbidity |
|------------|-----------------|-----|-----|-----------|
| 27/11/2008 | D.Vardy/J.Aparo | 573 | 8.7 | 3.2       |
| 5/11/2008  | D.Vardy/J.Aparo | 619 | 8.9 | 2.6       |
| 12/11/2008 | D.Vardy/J.Aparo | 534 | 8.5 | 2.8       |

**Figure 1.0 – Water Testing Results**

#### **2.5.4 Slope Stability**

Visual inspections of all the landslips in Toomuc Valley have been carried out after each blast. Visual inspections of the Toomuc Valley landslips were also carried out after each instance of heavy rainfall during this period. There were no morphological variances detected in the landslips as a result of these inspections. Visual inspections have been carried out of vegetation in these areas. All vegetation is healthy and growing well.

#### **2.7.4 Traffic Management**

Evaluation of trucks leaving the site concluded that there is minimal material being tracked onto public roadways, that the vast majority of loads are covered and correctly loaded.

Trucks that were non-compliant were informed and advised that continued non-compliance may result in disciplinary action. Refer Figure 1.4

## **References**

Rinker Australia, 2008, *Mt Shamrock Quarry Environmental Management Plan*, Version 1: 18 January 2008, Pakenham

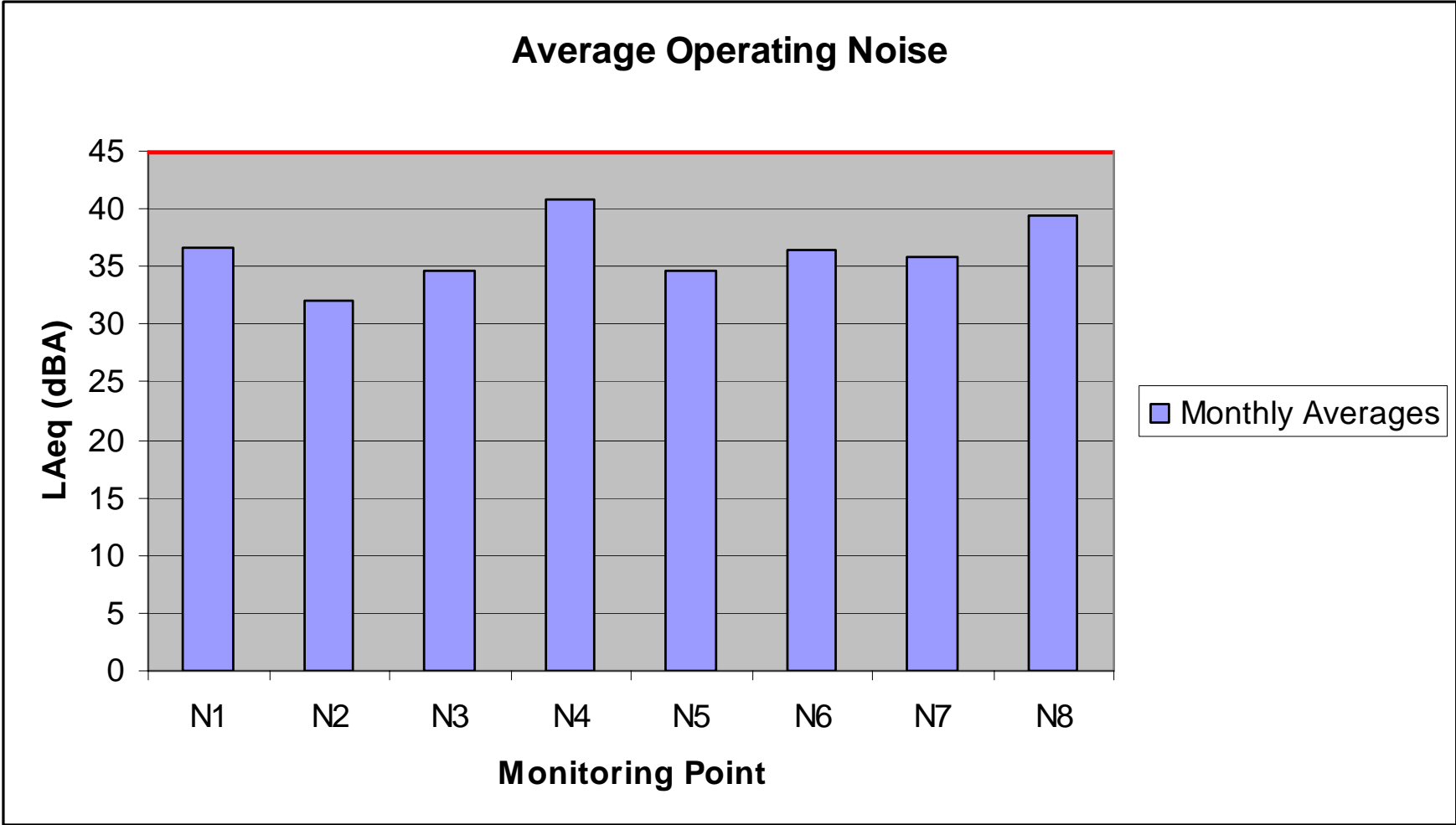


Figure 1.1: Average Daily Values for Noise Monitoring of Sensitive Locations

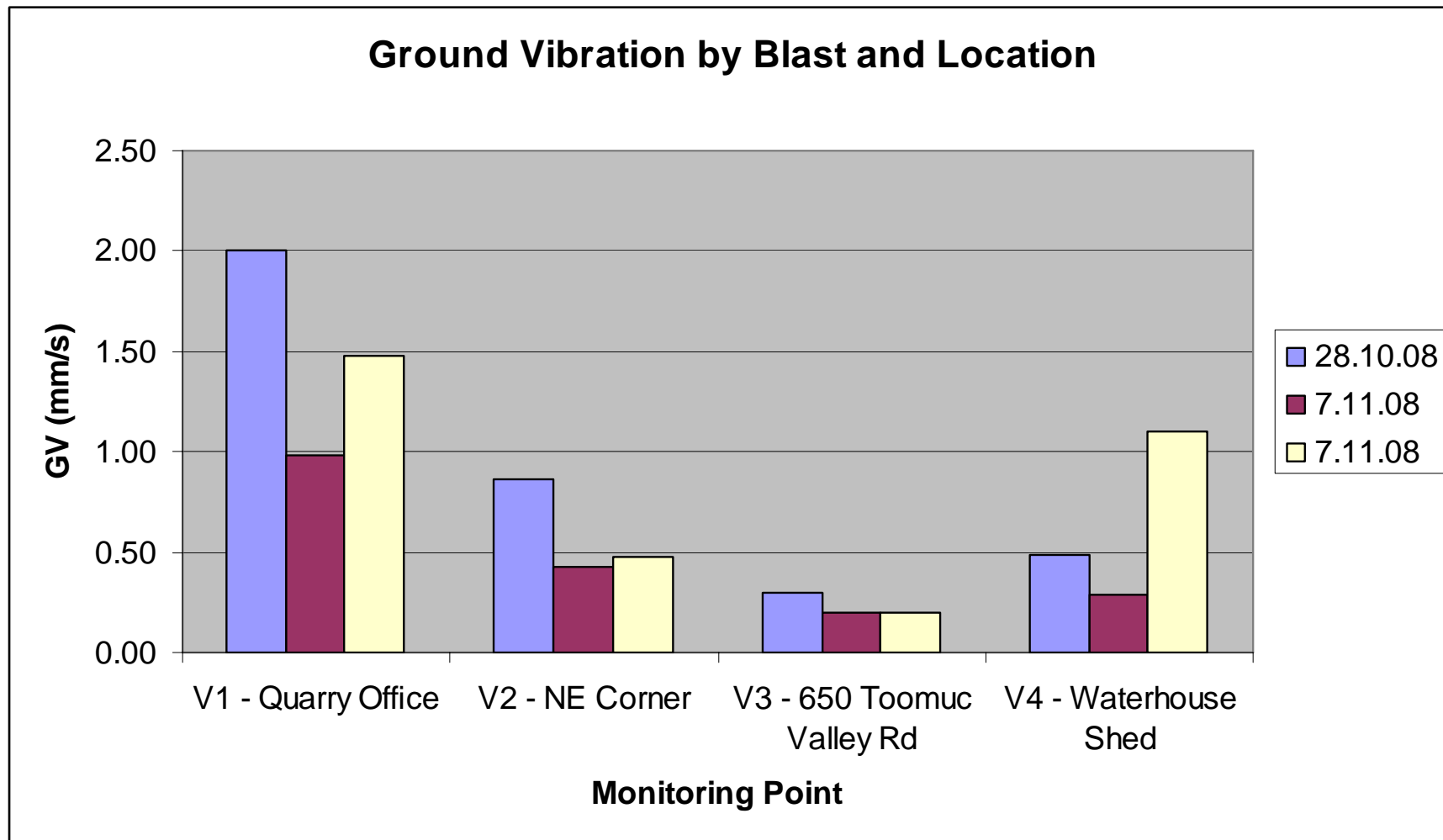


Figure 1.2: Ground Vibration by monitoring location and blast date. (Allowable Limit 5 mm/s)

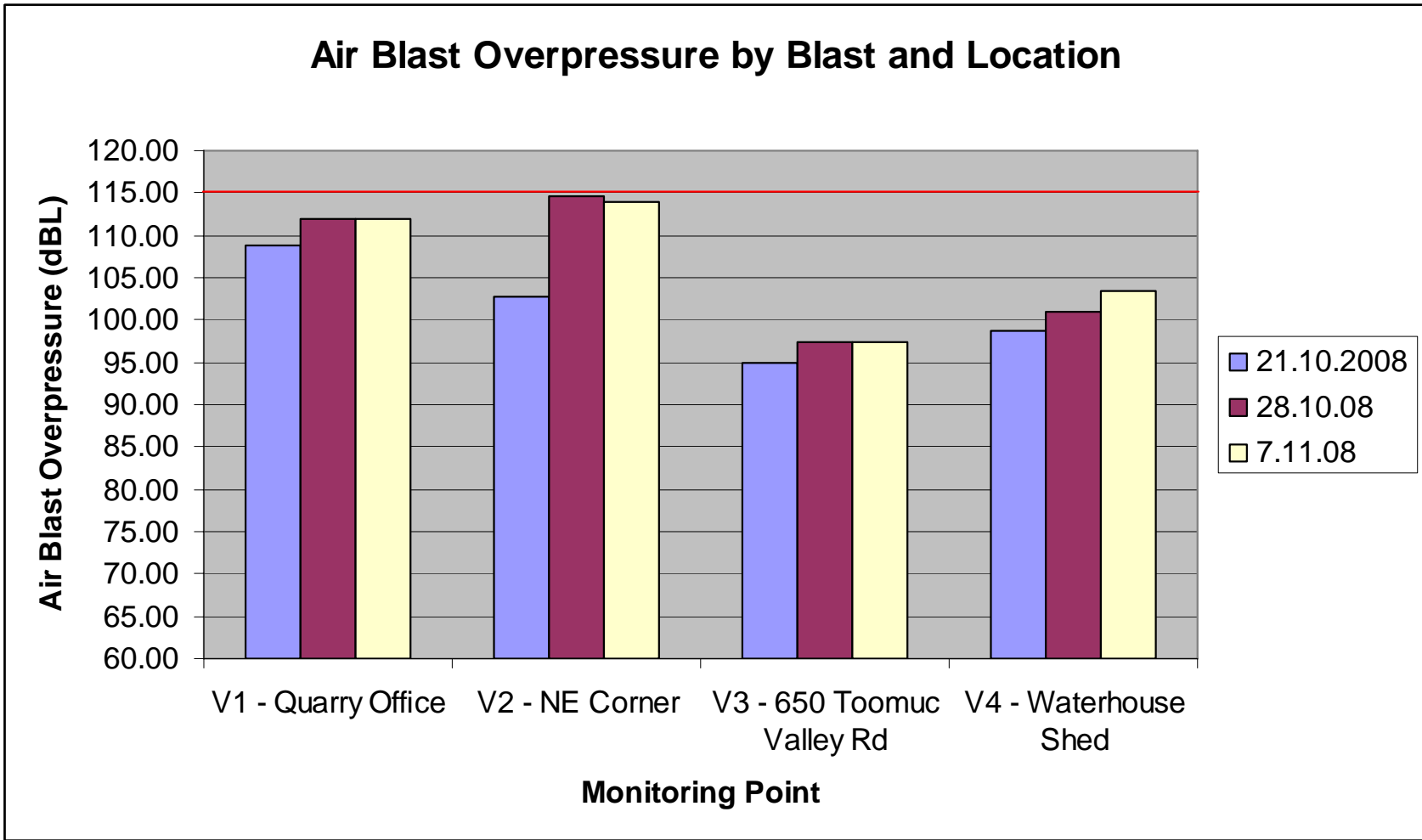


Figure 1.3: Air Blast by monitoring location and blast date. (Allowable Limit 115 dBL in 95% of Blasts, 120 dBL in 5% of Blasts in 12 month period)

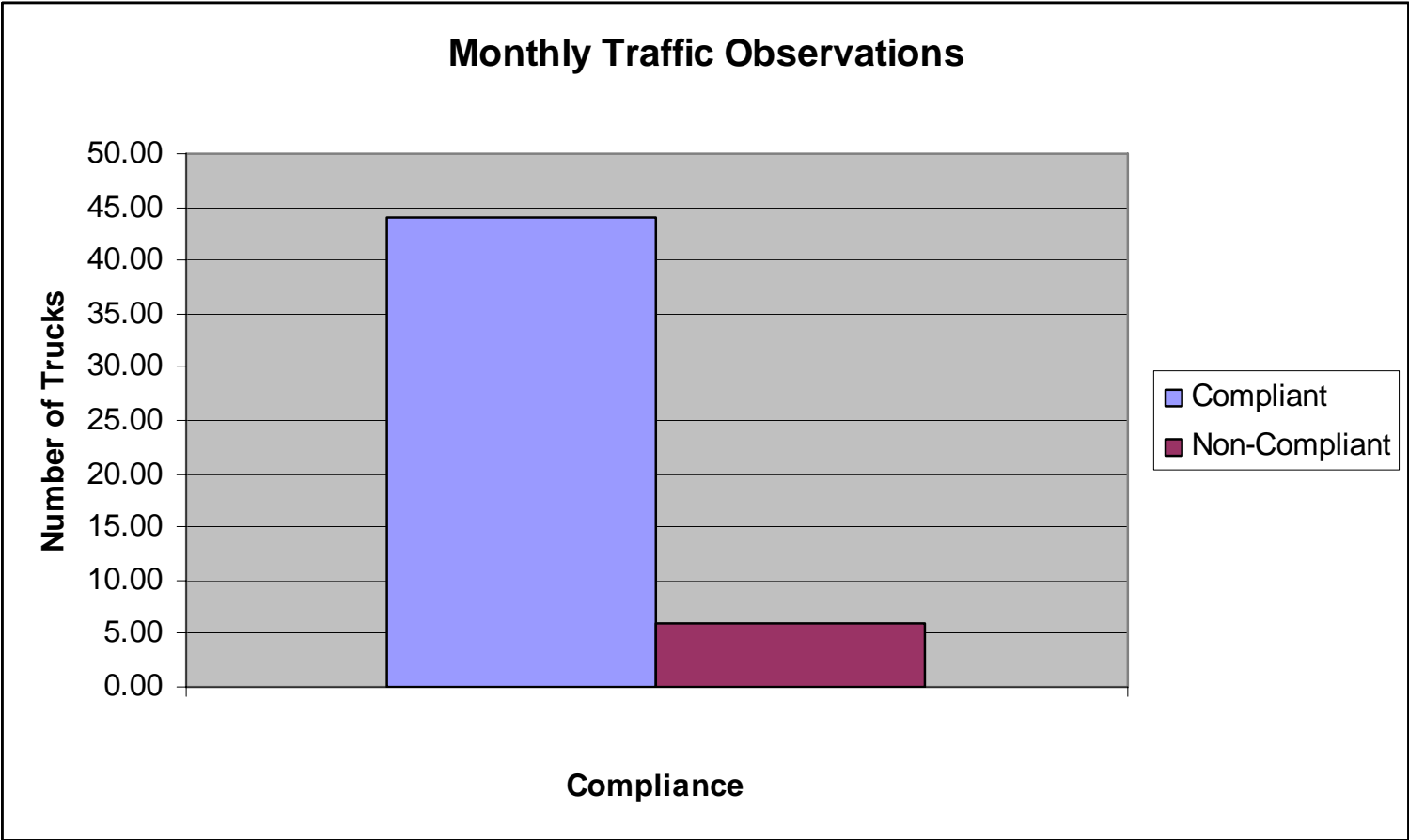
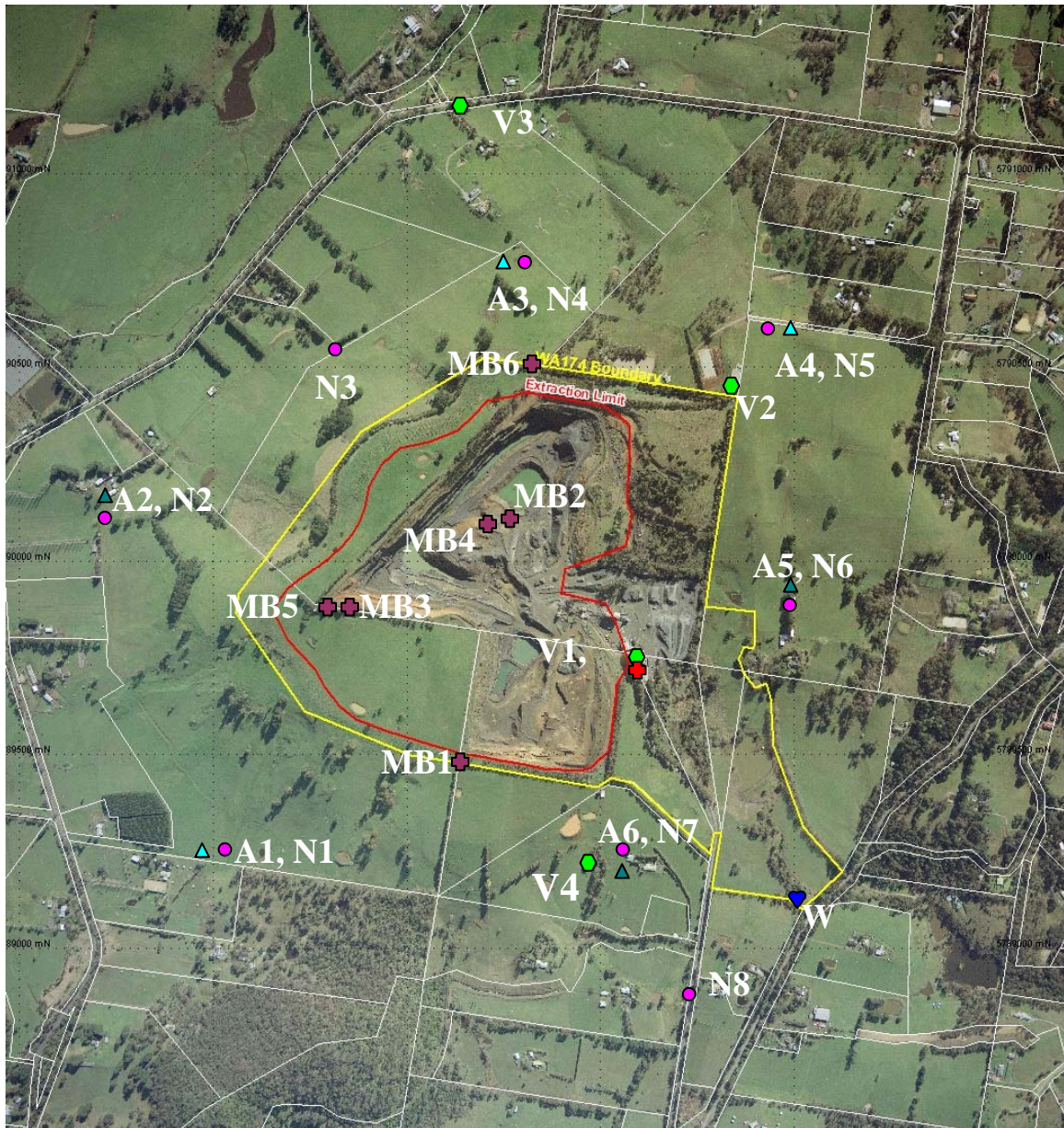


Figure 1.4: Traffic Observations for reporting period

Figure 1.5 – Monitoring Locations



**LEGEND:**

- ▲ A = Air monitoring location ( ▲ signifies high volume compliance monitoring station at A2, A5, A6)  
(Note: Background PM<sub>10</sub> monitoring also at address to be determined)
- N = Noise Monitoring location
- V = Blast Vibration and Noise Overpressure location
- ◆ W = Surface Water Sampling Point
- MB = Groundwater monitoring bores
- S = Weather Station