



Ref: L00618/BH/15-041

12 January 2018

Quarry Solutions Pty Ltd
c/- Groundwork Plus
6 Mayneview Street
MILTON QLD 4064

Attention: Mr Jim Lawler

Dear Jim

Re: December 2017 Noise Compliance Monitoring – Coraki Quarry, Coraki

MWA Environmental conducted noise compliance monitoring for the Coraki Quarry in December 2017 in accordance with Condition 5(c) of the Development Consent Schedule 3.

Quarry Solutions Pty Ltd has advised that no noise complaints have been received in relation to the Coraki Quarry between the previous September 2017 noise monitoring and the December 2017 noise monitoring events.

Noise monitoring was undertaken between 7:00am and 12:00pm on 19 December 2017. Wind speeds increased to above the 3 metres per second threshold for valid compliance monitoring after 12:00pm and no further measurements were obtained.

Weather conditions during the monitoring were fine with observed wind speeds generally calm to 3 metres per second during the monitoring period. Wind speeds were determined by field observation as it was identified in the morning that the on-site weather station anemometer was not operating correctly i.e. cup anemometer not rotating with breeze. Wind directions were generally from the north and southeast.

For certain locations/measurements, extraneous noise influences included:

- Insect noise (predominantly cicadas) consistent with seasonal expectations – filtered out through post-processing of frequency analysis monitoring data
- Bird calls – able to be reasonably well filtered out through post-processing using audio recordings and did not affect compliance assessment outcomes for any measurements
- Public road traffic noise - filtered out through on-site data exclusion where practical however background noise from Casino-Coraki Road north of Lagoon Road was relatively consistent during some measurements at locations R6 and R7 (refer **Figure 1**) but did not affect compliance assessment outcomes for any measurements

Coraki Quarry operations during the noise monitoring period were as follows:

- Main crushing and screening plant
- Mobile crushing and screening plant
- Loading dump trucks by excavator and haulage from pit to plant
- Stockpile management
- Loading and dispatch of product (road) trucks – consistent and frequent trucks throughout the monitoring period

Noise monitoring was undertaken over minimum 10 minute periods at free-field locations within 30 metres of the following five (5) residential dwellings nearest to the Coraki Quarry (refer **Figure 1**):

- R1
- R2
- R3
- R6
- R7

Observations were also made throughout the day within 30 metres of residence R4 but the quarry noise was inaudible on each occasion so no measurements were taken.

Attended noise monitoring was undertaken using a Bruel & Kjaer Type 2250 frequency analysing sound level meter with current NATA calibration. The sound level meter was calibrated to a reference signal of 94 dB at 1kHz prior to the monitoring and displayed no variance post-monitoring.

Condition 4 of the Development Consent Schedule 3 prescribes a 35 dB(A) $L_{Aeq,15min}$ noise limit for privately owned residences unless formal written agreements are in place with landowners.

As allowed for by Development Consent Schedule 3 Condition 4 and EPL Condition L4.2, formal written agreements are in place with the following landowners to the effect that the land owners do not hold objections to the operation of the Coraki Quarry exceeding the noise emission criterion by up to 5 dB(A):

- R1: 200 Lagoon Road, Coraki
- R2: 95 Spring Hill Road, Coraki
- R3: 75 Spring Hill Road, Coraki
- R6: 1905 Casino-Coraki Road, Coraki
- R7: 140 Newmans Road, Coraki

A summary of the 19 December 2017 compliance noise monitoring is provided in **Attachment 1**.

The Coraki Quarry was assessed to be compliant with the Development Consent and Environment Protection Licence No. 3397 noise limits during the 19 December 2017 noise monitoring period.

Further noise compliance monitoring is required by 31 March 2018 in accordance with Condition 5(c) of the Development Consent Schedule 3.

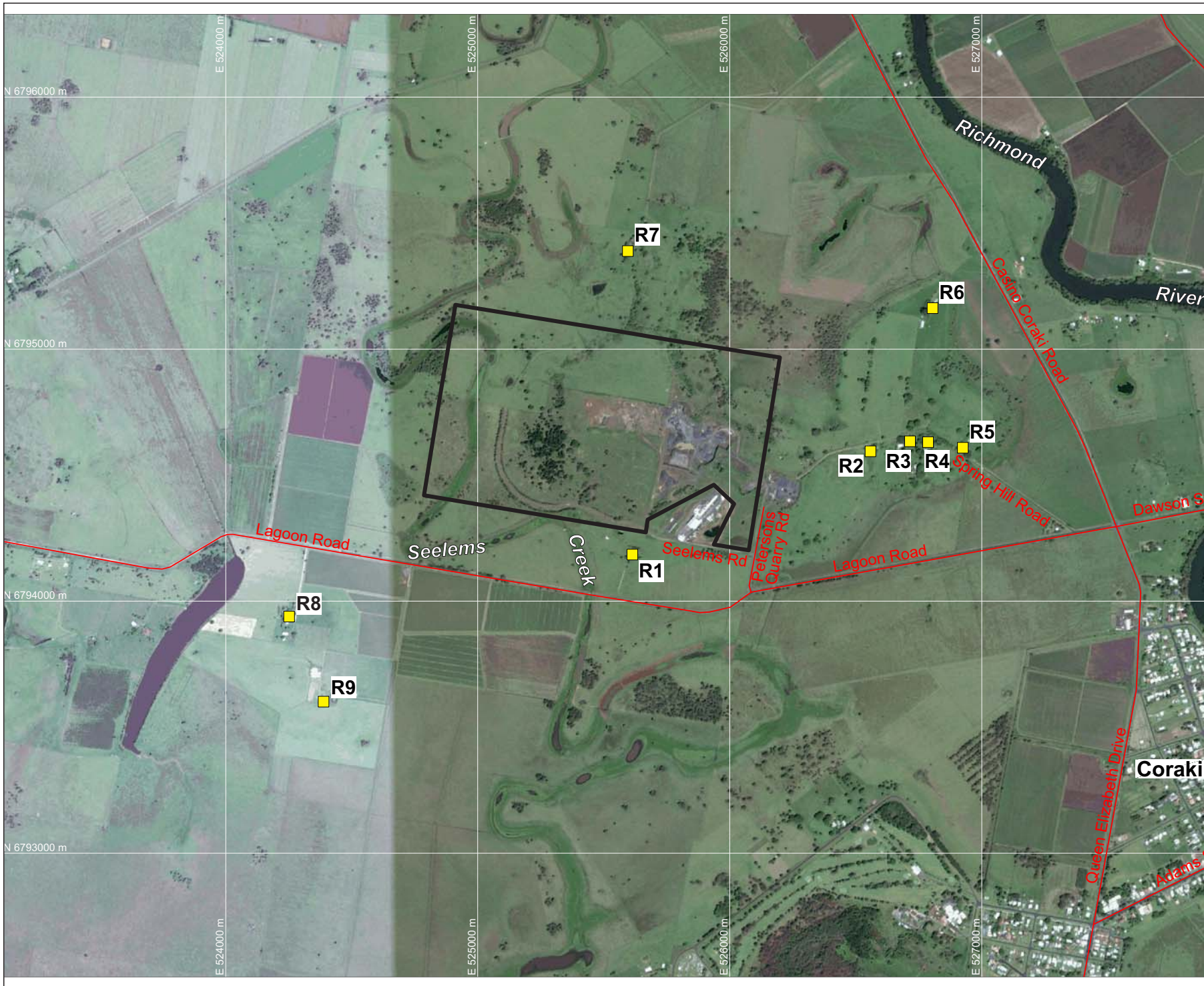
If you require any clarification or additional information please contact the undersigned.

Yours sincerely



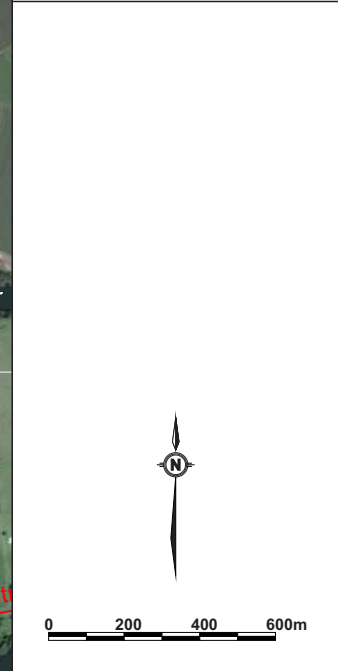
Ben Hyde
Environmental Engineer

FIGURES



LEGEND
 — SITE BOUNDARY
 ■ R9 SURROUNDING RESIDENCES (R1-R9)

DRAWING REFERENCE
 GROUNDWATER PLUS SITE LOCATION PLAN
 1837.DRG.002, 13/04/15.



CLIENT
QUARRY SOLUTIONS PTY LTD

PROJECT
**CORAKI
 NOISE COMPLIANCE
 ASSESSMENT
 CORAKI QUARRY**
 Petersons Quarry Rd Coraki NSW

TITLE
**AERIAL PHOTOGRAPH
 SHOWING SURROUNDING
 RESIDENCES**

JOB	CORAKI	FIGURE 1
JOB NO.	15-041	
DATE	16/12/16	DRAWING NUMBER
SCALE	1:20,000 (A4)	15-041-1
REV.		

Max Winders & Associates Pty Ltd tas MWA Environmental
 Level 15, 241 Adelaide St, Brisbane, GPO BOX 3137, Brisbane Qld 4001
 P 07 3002 5500 F 07 3002 5588 E mail@mwaenviro.com.au
 W www.mwaenviro.com.au
 ABN 94 010 833 084

ATTACHMENT 1

Summary of Compliance Noise Monitoring

MONITORING LOCATION	NSW TIME	WIND	ASSESSED QUARRY NOISE Leq - dB(A)	OPERATIONS	NOISE LIMIT LAeq dB(A)	STATUS	NOTES
R7	720	Calm	<36.2	Full Operation, no Drilling	40	Compliant	Insects significant, birds, distant Casino-Coraki Rd traffic, quarry just audible at times but <35dBA
R6	740	Calm	<36	Full Operation, no Drilling	40	Compliant	Casino Coraki Rd traffic, birds, some insects, occasional tips just audible but quarry otherwise inaudible with road noise, when no road traffic quarry truck <32 dBA and plant <34 dBA at peak
R2	805	Calm	<39.9	Full Operation, no Drilling	40	Compliant	Plant (screening) and occasional tip & dumpy exhaust audible, some insects and birds, quarry, occasional tips approx. 40 dBA and plant <40dBA
R3	820	Calm	<37.7	Full Operation, no Drilling	40	Compliant	Insects continuous, processing plant at quarry, combined processing plant and insect noise approx. 39-41dBA
R4	845	Calm	QUARRY INAUDIBLE			Compliant	
R1	855	Calm	<36.7	Full Operation, no Drilling	40	Compliant	Processing plant and trucks audible at quarry, occasional louder tips or large rock loading, hammering at workshop, insects and a few birds, quarry <38dBA with less insect noise
R7	935	Very Light N (1m/s est.)	<32.8	Full Operation, no Drilling	40	Compliant	Some insects and birds, distant farm machinery continuous, occasional reversing beeper but quarry generally inaudible aside from occasional truck exhaust, Casino Coraki Rs noise in northerly wind
R6	1000	Light N (2m/s est.)	<37.5	Full Operation, no Drilling	40	Compliant	Casino-Coraki Road noise (significant in light northerly), birds and cows, quarry generally inaudible and occasional tips <40dBA, insects
R2	1020	Light NE (1-3m/s est.)	<39.1	Full Operation, no Drilling	40	Compliant	Processing plant and occasional tips audible, insects and some birds, occasional reversing beeper, Casino-Coraki Rd traffic, quarry <40dBA including insect noise
R3	1040	Light NE (1-3m/s est.)	<36.8	Full Operation, no Drilling	40	Compliant	Insects significant, birds, tractor to south, processing plant just audible, occasional tips audible
R4	1100	Light NE (1-3m/s est.)	INSECTS AND BIRDS, TRACTOR IN FIELD, QUARRY INAUDIBLE			Compliant	
R1	1110	Light WNW (2m/s est.)	<38	Full Operation, no Drilling	40	Compliant	Minor insect noise, tips and trucks and occasional reversing beepers audible, some birds, processing plant <35dBA and occasional tips >40dBA