



Ref: L11219/BH/15-041

29 April 2019

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

Attention: Mr Jim Lawler

Dear Jim

Re: March 2019 Noise Compliance Monitoring – Coraki Quarry, Coraki

MWA Environmental conducted noise compliance monitoring for the Coraki Quarry in March 2019 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 since the previous December 2018 noise monitoring event.

Noise monitoring was undertaken between 7:00am and 12:00pm on 22 March 2019.

Weather conditions during the early monitoring period were calm and stable with no wind measured above the on-site weather station anemometer start-up speed until after 11am. Temperatures gradually increased from 21°C at 7am and relative humidity was high until the wind arrived.

Wind conditions during the monitoring were below the 3 metres per second threshold for valid compliance monitoring in accordance with the Development Consent. Calm conditions were present through to approximately 11am. Light 1 to 2 metre per second winds after 11am were from northeasterly directions.

Monitoring was ceased at approximately 11:50am prior to the collection of second samples at all locations due to a crushing plant breakdown. Parts were required to repair the crushing and screening plant had to be transported from Brisbane which dictated that the normal operation of the quarry would not recommence on 22 March 2019.

For certain locations/measurements, extraneous noise influences included:

- Bird calls – significant influence for many of the measurements but able to be substantially but not completely filtered out through post-processing using audio recordings
- Insect (cicada) noise – minor influence overall
- Public road traffic noise - filtered out through on-site data exclusion where practical however background noise from Casino-Coraki Road and Lagoon was relatively consistent during a limited number of measurements

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

- Main crushing and screening plant
- Excavator sorting and loading material at an elevated bench
- Loading dump trucks by excavator and haulage from pit to plant
- Stockpile management
- Loading and dispatch of product (road) trucks – consistent trucks throughout the monitoring period

No rock drill was operating on 22 March 2019.

Noise monitoring was undertaken over generally 10 to 15 minute periods at free-field locations within 30 metres of the following six (6) residential dwellings nearest to the Coraki Quarry (refer **Figure 1**):

- R1
- R2
- R3
- R4
- R6
- R7

Noise monitoring was undertaken using a Bruel & Kjaer Type 2250 frequency analysing sound level meter. 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 22 March 2019 compliance noise monitoring is provided in **Attachment 1**.

During the 22 March 2019 noise monitoring period the Coraki Quarry was assessed to be:

- **Compliant with the Development Consent and Environment Protection Licence No. 3397 noise limits for each of two (2) measurements at locations R1, R4, R6 and R7; and**
- **Non-compliant with the Development Consent and Environment Protection Licence No. 3397 noise limits for the single measurements at R2 and R3 obtained prior to the crushing plant breakdown i.e. no second measurements were obtained to confirm outcomes due to plant breakdown.** Noise from the crushing and screening plant was the dominant quarry noise influence during the measurements at R2 and R3.

Further noise compliance monitoring is required by 30 June 2019 in accordance with Condition 5(c) of the Development Consent Schedule 3.

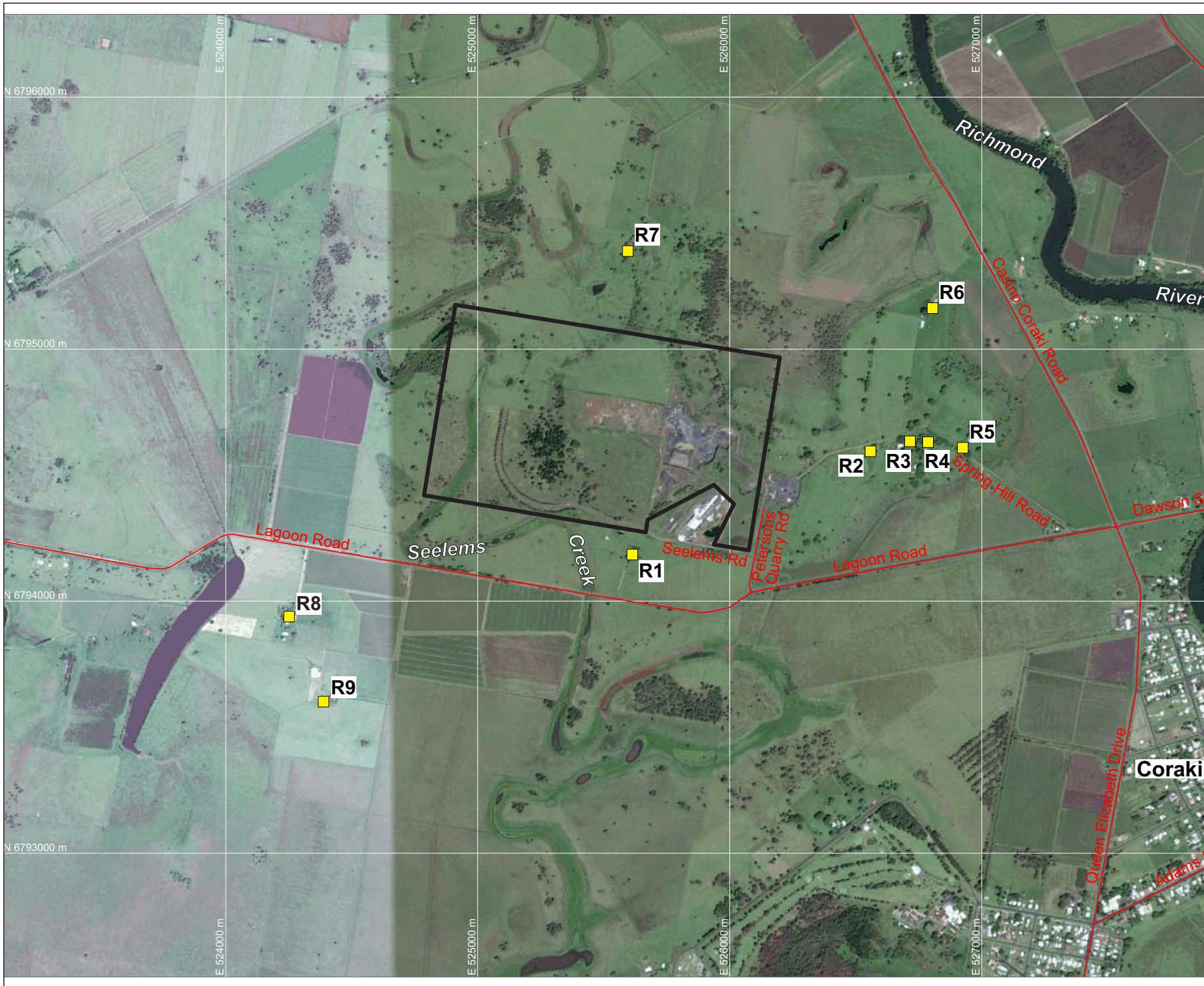
If you require any clarification or additional information please contact the undersigned.

Yours sincerely



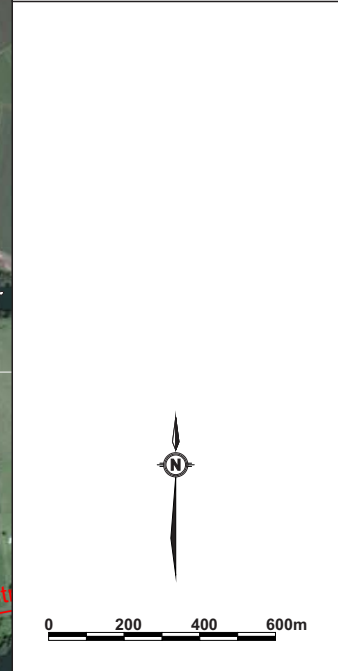
Ben Hyde
Environmental Engineer

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.		

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ATTACHMENT 1

Summary of Compliance Noise Monitoring

MONITORING LOCATION	TIME	WIND	ASSESSED QUARRY NOISE Leq - dB(A)	OPERATIONS	NOISE LIMIT LAeq dB(A)	STATUS	NOTES
R1	730	Calm	<37	Normal Operations, no rock drill	40	Compliant	Insect and bird noise, occasional trucks audible around office area and at top stockpile area, processing plant inaudible, quarry <40dBA
R1	1020	Calm to very light WSW	<35	Normal Operations, no rock drill	40	Compliant	Some birds, planes paused out, processing plant not to barely audible, occasional trucks at top stockpile pad audible, quarry <35dBA
R2	750	Calm	47.5	Normal Operations, no rock drill	40	Non-compliant	Processing plant mid 40s, some birds, excavator sorting and loading at elevated bench
R3	805	Calm	<45	Normal Operations, no rock drill	40	Compliant	Processing plant mid 40s, some birds, excavator sorting and loading at elevated bench
R4	820	Calm	<33	Normal Operations, no rock drill	35	Compliant	Insects and birds at times, Lagoon Rd traffic paused generally, processing plant barely audible when background <33dBA, occasional excavator loading clunks mid 30s
R4	1135	1.3m/s ENE => 2.2m/s NE	<31	Normal Operations, no rock drill	35	Compliant	Casino-Coraki Road traffic noise, Lagoon Rd generally paused out, quarry not audible, birds, quarry well below 35dBA, advised of plant breakdown after 9mins so measurement stopped
R6	850	Calm to very light WSW	<36	Normal Operations, no rock drill	40	Compliant	Constant insects + some birds, excavator sorting and handling rock audible intermittently at high 30s to low 40s, processing plant possibly just audible at times
R6	1115	Calm => 1.3m/s NE	<32	Normal Operations, no rock drill	40	Compliant	Casino-Coraki Road traffic noise, birds+insects, processing plant just audible but <30dBA background noise, trucks audible and visible at times, occasional tips audible
R7	710	Calm	<36	Normal Operations, no rock drill	40	Compliant	Significant bird noise, Casino-Coraki Rd traffic noise, dump truck engines audible because of different tone but below background noise therefore not measureable, tractor started to west so had to cease measurements, processing plant inaudible
R7	950	Calm to very light WSW	<30	Normal Operations, no rock drill	40	Compliant	Birds, excavator scraping and rock handling audible at times, processing plant not to barely audible when ambient <30dBA