



Ref: L14717/BH/15-041

13 April 2017

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

**Attention: Mr Jim Lawler**

Dear Jim

**Re: March 2017 Noise Compliance Monitoring – Coraki Quarry, Coraki**

MWA Environmental conducted noise compliance monitoring for the Coraki Quarry in March 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 December 2016 noise monitoring and the March 2017 noise monitoring events.

Noise monitoring was undertaken between 7:30am and 1:30pm on 29 March 2017.

Weather conditions during the monitoring were fine with early fog but no rainfall and wind speeds of less than 3 metres per second, predominantly from westerly directions.

There was no notable insect noise influence during the noise monitoring period however, for certain locations/measurements, extraneous noise influences included:

- Bird calls – able to be relatively well filtered out through post-processing using audio recordings for most measurements
- Distant frog noise from water covered floodplain – evident as background noise during several measurements – unable to be filtered out
- Distant but clearly audible cow calls at R6 from cattle gathered to pens at front gate for transport – unable to be filtered out
- Public road traffic noise - well filtered out through on-site data exclusion

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

- Crushing and screening
- 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
- No rock drill or rock pick operating

Noise monitoring was undertaken over minimum 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

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 29 March 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 29 March 2017 noise monitoring period.**

Further noise compliance monitoring is required by 30 June 2017 in accordance with Condition 5(c) of the Development Consent Schedule 3.

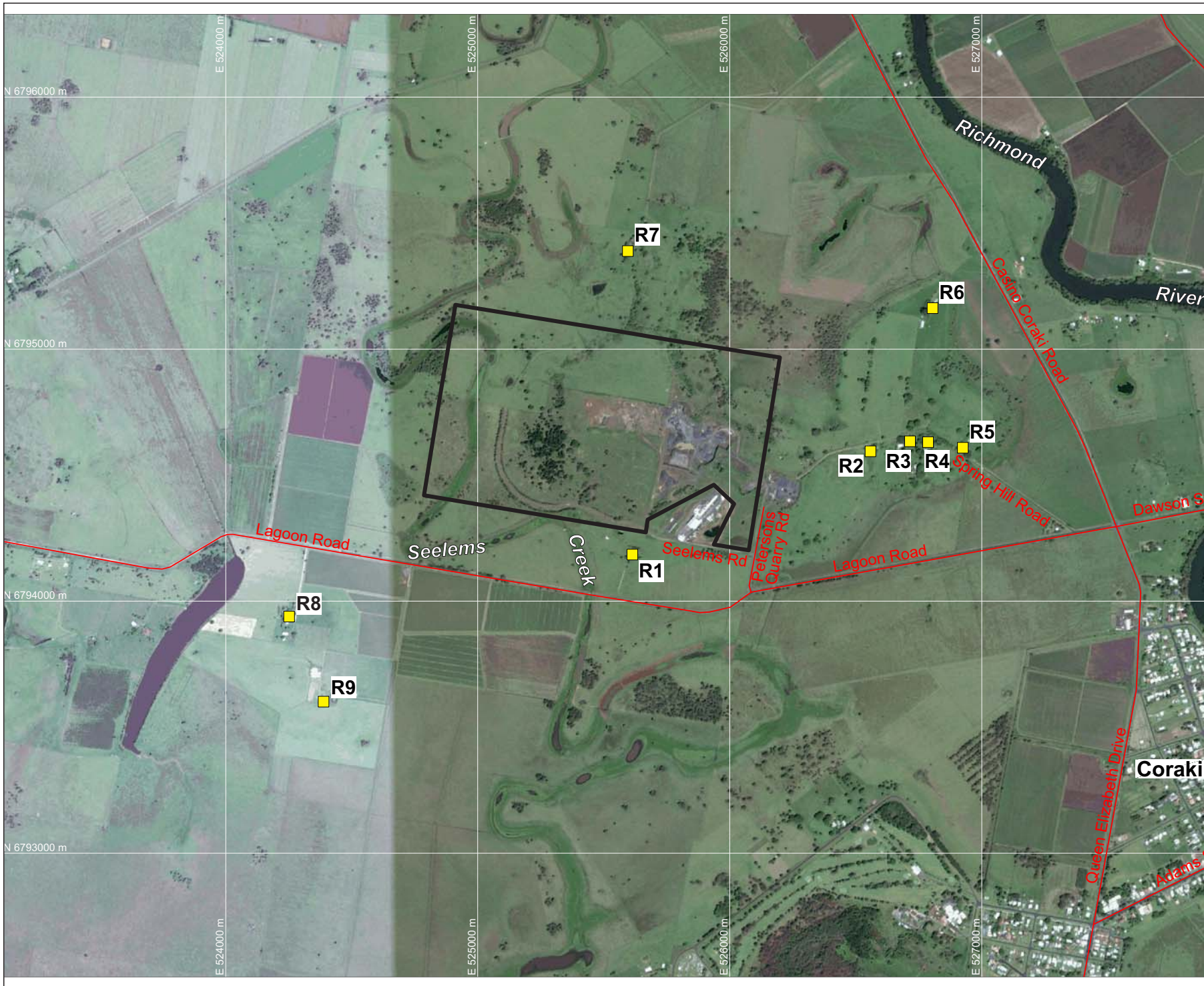
If you require any clarification or additional information please contact the undersigned.

Yours sincerely



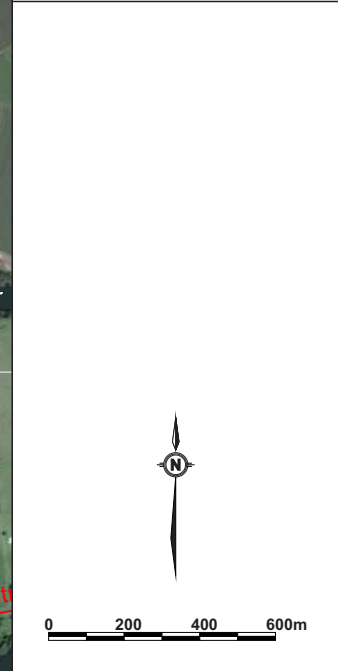
Ben Hyde  
Environmental Engineer

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

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# **ATTACHMENT 1**

*Summary of Compliance Noise Monitoring*

MONITORING LOCATION	TIME	WIND	OVERALL MEASURED Leq INCLUDING EXTRANEIOUS UNABLE TO BE FILTERED- dB(A)	ASSESSED QUARRY COMPONENT NOISE Leq - dB(A)	ASSESSMENT BASIS	NOISE LIMIT LAeq dB(A)	COMPLIANCE STATUS	MONITORING NOTES
R1	850	0.9m/s WSW	35.1	<35	Quarry generally inaudible, <1min of observed audible tip and truck noise, still significant bird noise influence despite filtering	40	Compliant	Quarry generally inaudible, around 31-32dBA when fewer birds, processing plant possible just audible and occasional tip at tiphead. Some birds (filtered to extent feasible).
	1130	0.9m/s NNW => 1.8m/s NW => 1.3m/s WSW	35.5	<35.5	Measured with some extraneous	40	Compliant	Processing plant audible and occasional truck and tiphead audible. Processing plant <35dBA. Minimal bird noise (filtered to extent possible).
R2	925	Calm	40.9	38.0	Calculation based upon observed audible times and levels for trucks, excavator and tip head. Reasonable based upon overall measurement and bird noise influence.	40	Compliant	Quarry audible - processing plant, tiphead and trucks. Bird noise (filtered to extent feasible but still significant influence).
	1205	1.3m/s NW => 2.2m/s NE => 0.9m/s ENE	38.4	<38.4	Measured with some extraneous	40	Compliant	Processing plant audible at 35-36dBA and occasional truck, excavator sorting and tiphead noise. Distant birds only.
R3	945	0.9m/s WNW	40.5	38.5	Calculation based upon observed audible times and levels for trucks, processing plant and tip head. Reasonable based upon overall measurement and bird noise influence.	40	Compliant	Quarry audible - processing plant, tiphead and occasional trucks. Processing plant <37dBA when less extraneous noise. Bird noise (filtered to extent feasible but still significant influence), frog noise and Lagoon Rd traffic noise.
	1225	2.2m/s WSW	37.7	<37.7	Measured with some extraneous	40	Compliant	Processing plant audible at <35dBA without birds etc., occasional excavator sorting and tiphead noise. Lagoon Rd truck noise. Some bird noise (filtered to extent possible)
R4	730	0.9m/s WNW	37.2	Inaudible	Inaudible	35	Compliant	Quarry inaudible. Some bird noise (filtered to extent possible), frog noise from floodplain to SW, trucks and traffic on Lagoon Rd and Casino-Coraki Rd.
	1010	0.9m/s W	37.5	Generally Inaudible, <35	Quarry generally inaudible, <10sec of observed audible tip noise, still significant bird and road traffic noise	35	Compliant	Quarry inaudible aside from occasional tiphead noise. Bird noise (filtered to extent possible), plane noise excluded. Measurement ceased when power tools commenced at R3.
	1245	2.7m/s NW => 2.2m/s NNW	33.9	<33.9	Measured with some extraneous	35	Compliant	Quarry generally inaudible aside from occasional truck engine just audible (low 30s dBA). Lagoon Rd and Casino-Coraki Rd traffic, some birds.
R6	750	0.4m/s WNW	Bird noise too significant to filter out given quarry generally inaudible	Generally Inaudible, <40	Quarry generally inaudible and significantly below 40dBA	40	Compliant	Tip head and occasional dump truck engine only audible quarry noise (less than 30 seconds over 15 minute measurement period). Bird noise significant, frog noise from floodplain to N as constant background
	1035	0.9m/s W	40.2	Generally Inaudible, <35	Quarry generally inaudible, <5sec of observed audible tip noise, still significant bird, frog and cow noise	40	Compliant	Quarry inaudible aside from occasional tiphead noise. Cattle herded to pens calling loudly in distance, frogs at floodplain to N.
	1310	0.9m/s SSE => 2.2m/s NNW	Traffic, cow and bird noise too significant to filter out given quarry inaudible	Inaudible	Inaudible	40	Compliant	Quarry inaudible. Casino-Coraki Rd traffic, cows at pens calling in distance.
R7	820	0.4m/s W	37.7	<35	Quarry generally inaudible and significantly below 37.7dBA which includes bird noise unable to be filtered out	40	Compliant	Quarry generally inaudible aside from occasional truck engine just audible due to tone. Bird noise significant, Casino-Coraki Rd traffic.
	1055	1.3m/s NW => 0.9m/s NNE	34.5	<33	Quarry generally inaudible, <30sec of observed audible tip and excavator noise, still significant bird, cow and traffic noise	40	Compliant	Quarry inaudible aside from occasional tiphead noise and excavator bucket scrape. Leq <33dBA when less bird and traffic noise. Cows and birds, Casino-Coraki Rd traffic