



STONECO PTY LTD ANNUAL ENVIRONMENTAL MANAGEMENT REPORT

1 January to 31 December 2015



TIMOR LIMESTONE QUARRY

2015 ANNUAL ENVIRONMENTAL MANAGEMENT REPORT

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For:

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TITLE DETAILS

Title Details	
Name of Mine	Timor Limestone Quarry
Mining Title / Leases	ML 1660
Expiry Date	23 November 2032
Name of Leaseholder	Stoneco Pty Ltd
Name of Mine Operator (if different)	N/A
Postal Address	PO Box 708 SCONE NSW 2337
Telephone/fax/email	Phone: 02 6545 2222 / Fax: 02 6545 2444
Land Ownership and Land Use Boundaries	
Land Owner/Occupier	Stoneco Pty Ltd
Tenure	Freehold
Pre-mining landuse	Agricultural Grazing
Consent and Licences	
Local Council Area	Upper Hunter Shire (UHS) Council
Development Consent	Development Consent (DA) 308/08
Do licences granted by other agencies apply to the mine activities?	EPA (EPL 13397) UHSC (DA308/08)
MOP and AEMR Period	
MOP Commencement Date	31 May 2014
Completion date (nominal)	31 May 2021
AEMR Start Date	1 January 2015
End date	31 December 2015
Signatures	
Leaseholder	Signature:
	Name: Scott Murdoch
	Date:
Environmental Officer	Signature:
	Name: Heath Fletcher
	Date:

1 BACKGROUND

This section provides a description of the Timor Quarry site and outlines the regulatory requirements for the AEMR.

1.1 SITE DESCRIPTION

Timor Limestone Quarry (Timor Quarry) is located 29 km east of Blandford in the Upper Hunter Shire Council area (UHSC) of NSW.

Operations are generally undertaken in accordance with Development Consent DA308/08, its supporting Environmental Impact Statement (EIS) (R.W. Corkery & Co Pty Limited, 2008), Mining Lease (ML) 1660 (granted in November 2011) and EPL13397.

ML 1660 is located wholly within freehold land, principally owned by Stoneco Pty Ltd (Stoneco) (Lot 11 DP 1161503) and a smaller area owned by another private landholder (Lot 10 DP 1161503).

DA308/08 generally approves the following activities:

- Construction of a site access road and intersection with Timor-Crawney Road;
- Extraction of limestone from an identified 24 Million tonne (Mt) resource for up to 30 years;
- Extraction is to occur within a nominated 4 ha extraction area via drill and blast methods at rates up to 100,000 tonnes per annum (tpa);
- Crushing and screening of limestone within the extraction area and/or stockpiling and handling area;
- Transportation of crushed product directly to customers or to a processing plant located in the Scone Business Park; and
- Rehabilitation.

Figure 1 illustrates the general layout of the site.

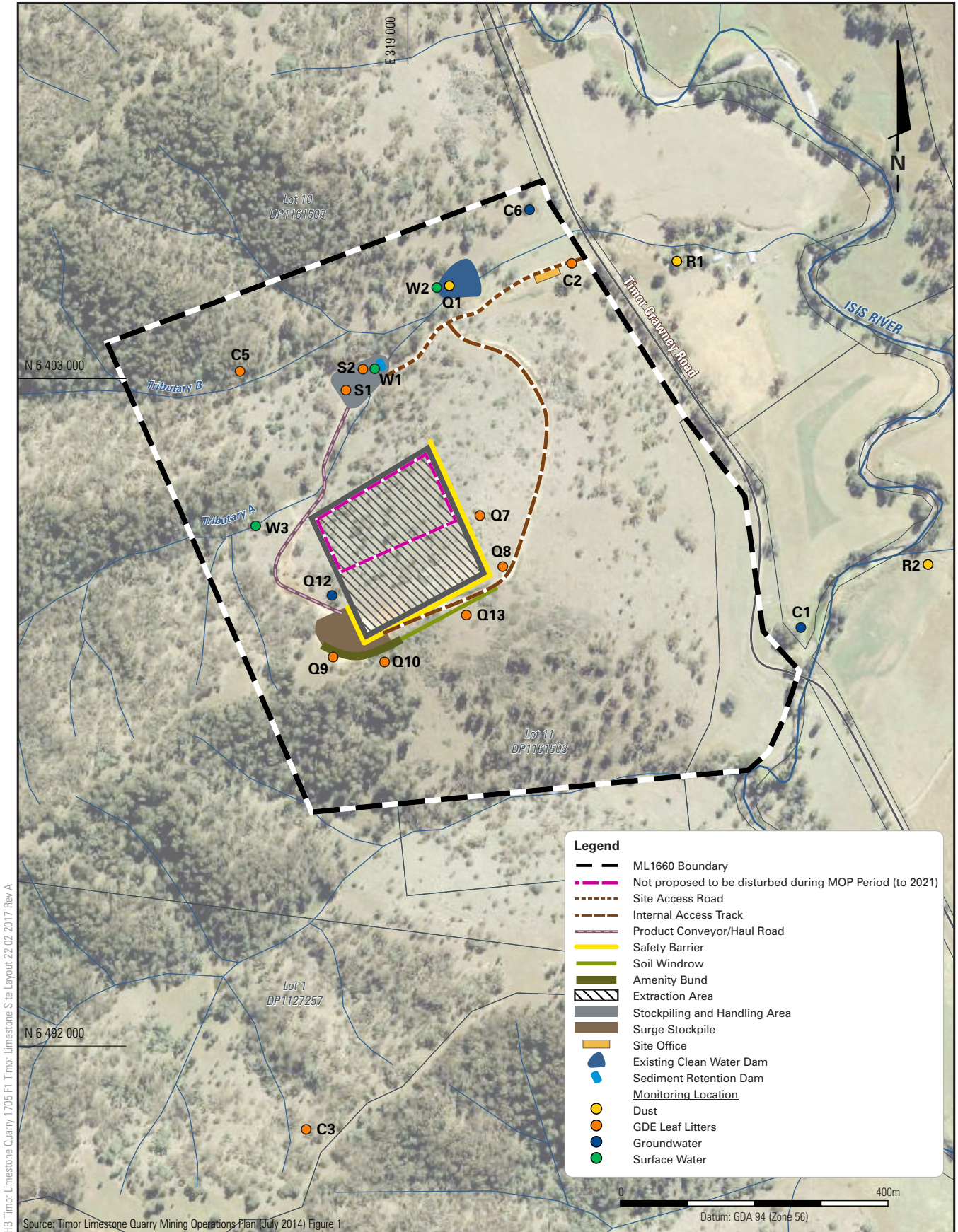
1.2 AEMR REQUIREMENTS

This Annual Environmental Management Report (AEMR) has been prepared to meet the 'Investment - *Preparation of an Annual Environmental Management Report: Small Mine Version Guidelines*' (DRE, 2012). In addition, Timor Quarry's DA308/08 outlines a number of specific requirements to be included in the AEMR. These requirements, as well as where each is addressed in the AEMR are outlined in **Table 1**.

This AEMR has been prepared for the "Reporting Period" of 1 January 2015 to 31 December 2015. Where available, information from the commencement of extraction on in September 2014 to 31 December 2014 has also been included (termed "Extraction to end 2014").

Table 1
DA 308/08 AEMR Requirements

Description	Where Addressed
<p>S6.2 Annual Environmental Management Report</p> <p>At the end of each 12 month period calculated from the commencement of quarrying on the Project Site, the Applicant shall submit an AEMR to the relevant government agencies and to the satisfaction of the Council. This report must:</p>	<p>This Report</p>
(a) identify the standards and performance measures that apply to the development;	<p>Section 1.1 & Section 4</p>
(b) include a summary of the complaints received during the past year, and compare this to the complaints received in the previous 5 years;	<p>Section 5</p>
(c) include a summary of the monitoring results on the development during the past year;	<p>Section 4</p>
d) include a comprehensive review of these monitoring results against the relevant:	<p>-</p>
(i) limits/criteria in this consent;	<p>Section 4</p>
(ii) monitoring results from previous years; and	<p>In part, Section 4</p>
(iii) relevant predictions in the EIS and Specialist Consultant Studies Compendium;	<p>Section 4</p>
(e) identify any trends in the monitoring results over the life of the development;	<p>In part, Section 4</p>
(f) identify and discuss any non-compliance during the previous year; and describe what actions were, or are being, taken to ensure compliance. These actions may include proposed amendments of management plans, to be proposed, approved and implemented as specified in conditions S1.2.4, S1.2.5 and S1.2.6.	<p>Section 4</p>
(g) describe the works that were carried out in the past year, and the works that are proposed to be carried out over the next year; and	<p>Section 2</p>
(h) describe what measure will be implemented over the next year to improve the environmental performance of the approved operations; and	<p>Section 4</p>
(i) include the data, findings and recommendations referred to in conditions S1.12.11 and S1.12.12, and confirm the action taken by the quarry owner to implement those recommendations, as required by condition S1.12.15.	<p>N/A</p>



HB Timor Limestone Quarry 1705 F1 Timor Limestone Site Layout 22.02.2017 Rev A

TIMOR LIMESTONE QUARRY

Timor Limestone Quarry Site Layout

FIGURE 1

1.3 REGULATORY CONSULTATION

Timor Quarry operates in accordance with the following approved management plans:

- Groundwater Dependant Ecosystem Sampling Protocol;
- Air Quality Management Plan;
- Biodiversity Management Plan;
- Mine Rehabilitation Closure Plan; and
- Mine Closure Plan.

This AEMR has been prepared in accordance with the requirements outlined in **Section 1.2**.

2 MINING OPERATIONS DURING THE REPORTING PERIOD

This section details the production, waste and rehabilitation activities at the Timor Quarry during the Reporting Period.

2.1 SUMMARY

Stoneco indicates work on site commenced on 1 July 2011, with the first extraction undertaken 5 September 2014.

A brief description of operations during the Reporting Period is as follows:

- No land clearing occurred during this period;
- Construction of screening plant and stockpile bays was undertaken within the approved stockpile and handling area (SHA);
- Ore extraction during this period is within the extraction area stockpiled as part of the construction / establishment phase of Timor Quarry; and
- Limited processing during the 2015 Reporting Period (due to the construction / establishment phase).

Table 2 outlines the production and waste summary to date.

Table 2
Production & Waste Summary

Material	Cumulative Production (cubic metres)				
	1 July 2011 to 4 Sept 2014	5 Sept 2014 to Dec 31 2014	Start of Reporting Period (Jan 2015)	End of Reporting Period (Dec 2015)	Next Reporting Period (Forecast)
Topsoil stripped	0	250	400	0	0
Topsoil Used/spread	0	0	0	0	0
Waste Rock	0	0	0	0	0
Ore	0	0	0	200	3000
Processing Waste	0	0	0	0	0
Product (units)	0	0	0	200	3000

2.2 REHABILITATION

There was no rehabilitation during the Reporting Period.

2.3 FURTHER DEVELOPMENT OF THE REHABILITATION PLAN

There was no rehabilitation conducted during the Reporting Period due to active operational area. **Table 3** provides the rehabilitation summary and **Table 4** outlines maintenance activities on rehabilitated land.

Table 3
Rehabilitation Summary

	Cumulative Area Affected (hectares)		
	To date	Last Report	Next Report (Estimated)
A: MINE LEASE AREA	58.64		
B: DISTURBED AREAS			
B1 Infrastructure area other disturbed areas to be rehabilitated at closure including facilities, roads	0.55	N/A	0.55
B2: Active Mining Area excluding items B3 - B5 below	1.31	N/A	1.55
B3 Waste emplacements, active/unshaped/in or out-of-pit	0	N/A	0
B4 Tailings emplacements, active/unshaped/uncapped	0	N/A	0
B5 Shaped waste emplacement (awaits final vegetation)	0	N/A	0
ALL DISTURBED AREAS	1.86	N/A	2.1
C: REHABILITATION PROGRESS			
C1 Total Rehabilitated area (except for maintenance)	Nil Rehab – Operational Area	N/A	0
DC: REHABILITATION ON SLOPES			
D1 10 to 18 degrees	Nil	N/A	0
D2 Greater than 18 degrees	Nil	N/A	0
E: SURFACE OF REHABILITATED LAND			
E1 Pasture and grasses	Nil	N/A	0
E2 Native forest/ecosystems	Nil	N/A	0
E3 Plantations and crops	Nil	N/A	0
E4 Other (include nonvegetative outcomes)	Collection of Native Seedlings for re-planting. Hunter Land Management		To be grown at Nursery

N/A - Not applicable, site in construction phase.

Table 4
Maintenance Activities on Rehabilitated Land

Nature of Treatment	Area Treated (hectares)		Comment/control strategies/ treatment detail
	Report period	Next period	
Additional erosion control works (drains re-contouring, rock protection)	Rock Armour	Ongoing	Placing rip rap in drains to reduce turbidity
Re-covering (detail - further topsoil, subsoil sealing, etc.)	Nil	Nil	Active Operation Area
Soil treatment (detail - fertiliser, lime, gypsum etc.)	Nil	Nil	-
Treatment/Management (detail - grazing, cropping, slashing etc.)	Nil	Operations	Under review depending on seasonal conditions and bushfire risk
Re-seeding/Replanting (detail - species density, season etc.)	Yes	Yes	Collection of Native Seeds for growing in nursery for planned planting mid-2016
Adversely Affected by Weeds (detail - type and treatment)	Yes	Planned	Blackberry – conducted spraying through period
Feral animal control (detail - additional fencing, trapping, baiting etc.)	Nil	Nil	Ste Management Adaptive

3 METEOROLOGICAL DATA

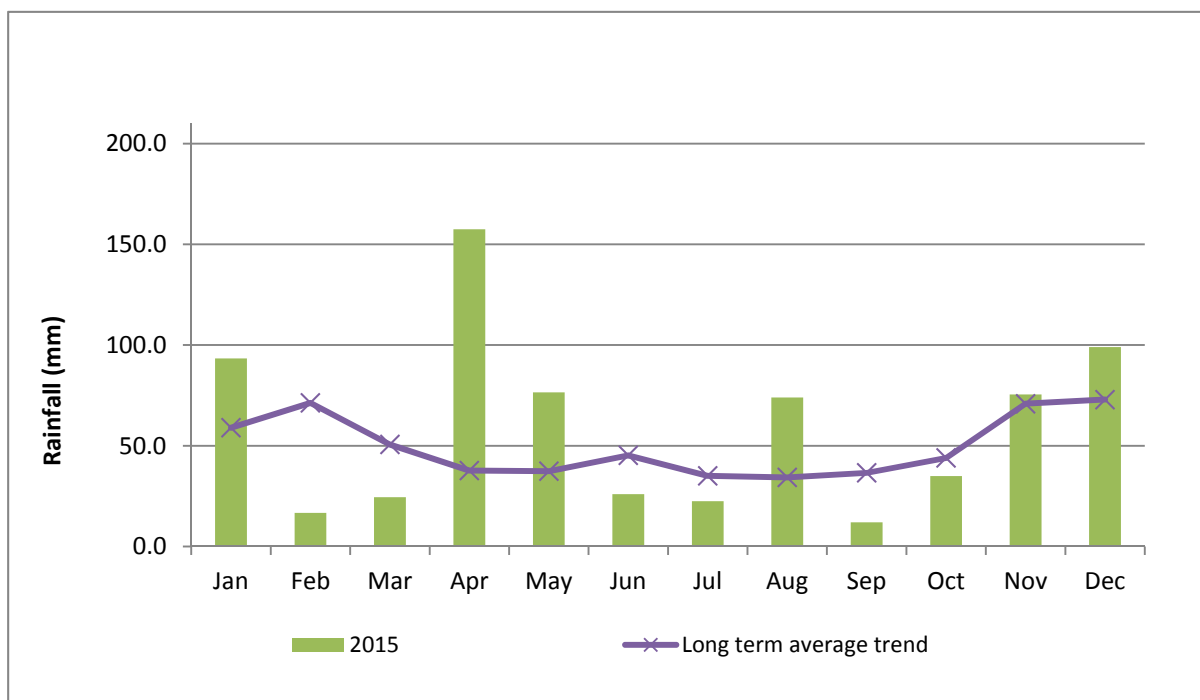
3.1 RAINFALL

Rainfall is recorded at the rain gauge located in SHA area, and incorporated in the monthly reports.

During the Reporting Period, a higher total of 745.4 millimetres (mm) of rainfall was recorded when compared to the 716.6 mm long term annual average. The highest monthly rainfall (113.8 mm) was recorded in November 2015.

A comparison of 2015 monthly rainfall is displayed against the long term average in **Figure 2**.

Figure 2
Timor Limestone Quarry 2015 Monthly Rainfall



**Long term average supplied by Stoneco Pty Ltd*

3.2 TEMPERATURE

Monthly minimum and maximum temperatures recorded in 2015 at the Scone Airport Automatic Weather Station (AWS) are shown in **Table 5**, together with historic averages. The temperatures are typical of a temperate climate, with warmer summer months December to March and cooler winter months from June to August.

The monthly average minimum and maximum daily temperatures are 10.5°C and 24.5°C, respectively. Temperatures recorded in 2015 are similar those which have been experienced historically.

Table 5
Monthly Temperatures 2015

Month	Monthly Minimum Temperature (°C)	Historic Average* Minimum (°C)	Monthly Maximum Temperature (°C)	Historic Average* Maximum (°C)
January	17.6	16.9	30.9	31.5
February	15.8	16.5	30.8	30.3
March	14.3	14.1	30.5	27.9
April	11.4	10	23.2	24.5
May	8.9	6.6	19.3	20.4
June	3.8	4.8	16.7	17
July	3	3.5	15.4	16.5
August	3.7	3.6	18.1	18.6
September	5.8	6.7	20.7	22
October	11	9.4	28.2	25.1
November	14.6	13.1	29	28
December	15.1	15.3	31	30
Average	10.5	10.0	24.5	24.3

*Scone Airport AWS from 1991.

4 ENVIRONMENTAL PERFORMANCE

This section outlines the key environmental control and monitoring strategies in place at Timor Quarry. The locations of monitoring points referred to in this section are shown on Figure 1.

4.1 SURFACE WATER MONITORING

4.1.1 Background

Stoneco has developed a Soil and Water Management Plan (SWMP) in accordance with DA 308/08. The SWMP describes the surface water management infrastructure and environmental procedures in place at Timor Quarry including the:

- Surface water monitoring program; and
- Erosion and sediment control.

Timor Quarry's surface water monitoring locations are shown on and include:

- One monitoring location on Tributary A, 100 m west of the dam (W1);
- One monitoring location at the Dam (W2); and
- One monitoring location on Tributary A (W3), 200 m west of the dam.

4.1.2 Monitoring Results

Table 6 outlines the surface water monitoring results for the Reporting Period and during Extraction to end 2014. Stoneco has advised there were no breaches of internal sediment controls during the Reporting Period.

One non-compliance with discharge criteria was recorded from W2 for Total Suspended Solids (TSS) during the Reporting Period. It was noted that the water level was low and algae was present during sampling (see **Appendix A**).

Any exceedances of the relevant criteria are **bolded** in **Table 6**. There were no other exceedances during the Reporting Period.

Table 6
Surface Water Monitoring Results

Date sampled	Pollutant	Discharge Criteria*	Monitoring Location			Compliant
			W1	W2	W3	
21 July 2014	EC (μ S / cm)	1,500	NS	NS	285	Yes
	Total suspended solids (mg / L)	50	NS	NS	29	Yes
	pH	6.5 – 8.5	NS	NS	7.5	Yes
	BOD (mg / L)	20	NS	NS	8	Yes
24 November 2014	EC (μ S / cm)	1,500	NS	176*	NS	Yes
	Total suspended solids (mg / L)	50	NS	358*	NS	No
	pH	6.5 – 8.5	NS	9*	NS	Yes
	BOD (mg / L)	20	NS	5*	NS	Yes
20 April 2015	EC (μ S / cm)	1,500	NS	274*	324	Yes
	Total suspended solids (mg / L)	50	NS	101*	10	No
	pH	6.5 – 8.5	NS	7.1*	7.4	Yes
	BOD (mg / L)	20	NS	13*	7	Yes
19 October 2015	EC (μ S / cm)	1,500	NS	252	NS	Yes
	Total suspended solids (mg / L)	50	NS	44	NS	Yes
	pH	6.5 – 8.5	NS	7.0	NS	Yes
	BOD (mg / L)	20	NS	<2	NS	Yes

NS – Not sampled due to area being dry. *Water level noted as low with algae present.

** Development Consent DA308/08 Condition S1.11.

4.1.3 Further Actions

Improvements to the sediment management strategy will be implemented during the next Reporting Period. This will include the construction of additional rock lined drains, grading and construction of further sediment fences. The strategy may also include the use of rip-rap on slopes where it is deemed appropriate.

Additional data will be presented in the 2016 AEMR, including a cumulative summary of surface water monitoring data to date.

4.2 GROUNDWATER MONITORING

4.2.1 Background

The management of groundwater forms part of the Soil and Water Management Plan, in accordance with DA 308/08. This Plan describes the groundwater monitoring procedures in place at Timor Quarry. In addition, a Groundwater Dependant Ecosystem (GDE) Sampling Protocol has been developed and implemented.

Timor Quarry's groundwater monitoring locations are shown on **Figure 1** and include:

- One monitoring location located offsite near Isis River (C1);
- One monitoring located at the north-east end of the site (C6); and
- One monitoring location adjacent to the extraction area (Q10).

4.2.2 Monitoring Results

Table 7 outlines the groundwater monitoring results for the Reporting Period and includes results of monitoring from Extraction to end 2014. The table compares these results to the baseline.

Table 7
Groundwater Monitoring Results

Date sampled	Pollutant	Criteria*	Baseline**	Monitoring Location		
				C1	C6	Q12
24 November 2014	EC ($\mu\text{S} / \text{cm}$)	1500	561 - 613	583	NS	NS
	pH	6.5 8.5	7.2 -7.4	7.4	NS	NS
	DO (mg / L)	11.3	8.6 – 8.7	7.6	NS	NS
	GDE (150 μm)	N/A	N/A	ST	NS	NS
	GDE (50 μm)	N/A	N/A	ST	NS	NS
20 April 2015	EC ($\mu\text{S} / \text{cm}$)	1500	561 - 613	573	NS	NS
	pH	6.5 8.5	7.2 -7.4	7.4	NS	NS
	DO (mg / L)	11.3	8.6 – 8.7	8.1	NS	NS
	GDE (150 μm)	N/A	N/A	ST	NS	NS
	GDE (50 μm)	N/A	N/A	ST	NS	NS
15 June 2015	EC ($\mu\text{S} / \text{cm}$)	1500	561 - 613	-	521	NS
	pH	6.5 8.5	7.2 -7.4	-	7.2	NS
	DO (mg / L)	11.3	8.6 – 8.7	-	8.3	NS
	GDE (150 μm)	N/A	N/A	-	ST	NS
	GDE (50 μm)	N/A	N/A	-	ST	NS
19 October 2015	EC ($\mu\text{S} / \text{cm}$)	1500	561 - 613	586	618	NS
	pH	6.5 8.5	7.2 -7.4	7.2	7.4	NS
	DO (mg / L)	+	8.6 – 8.7	6.1	6.8	NS
	GDE (150 μm)	N/A	N/A	ST	ST	ST

Date sampled	Pollutant	Criteria*	Baseline**	Monitoring Location		
				C1	C6	Q12
	GDE (50 µm)	N/A	N/A	ST	ST	ST

NS – Not sampled due to bore being dry

ST – Sample taken

N/A - Not Applicable

*Stoneco Soil and Water Management Plan- Dissolved Oxygen limit characterised by baseline data as provided by Stoneco

**As provided by Stoneco.

The baseline criteria for dissolved oxygen (DO), as shown in **Table 7**, is characterised using baseline data, collected 12 months prior to operations (as required by DA308/08). It is noted the results of the 2015 sampling for this parameter are lower than the baseline (see **Appendix A**). Results outside of the baseline range are **bolded** in **Table 7**. This anomaly will be further investigated in future AEMRs. There were no exceedances of the relevant criteria during the 2015 Reporting Period.

During the 2015 Reporting Period, two statements were received from Umwelt Pty Ltd, who was engaged as the subterranean (underground fauna) expert. The findings of the subterranean sampling are outlined in **Table 8**.

DA 308/08, Condition S1.12.14 states “*The AEMR must include statements from an appropriately qualified GDE expert and from a qualified hydrologist.*” Stoneco advised that the 2015 groundwater and subterranean monitoring data was supplied to all members of the Nominated Expert Panel and no concerns were raised with regards to hydrology or Groundwater Dependent Ecosystems (GDEs).

Table 8
Findings of Subterranean Sampling

Statement Title and Date	Sample period	Qualified Expert	Findings
Finding of Subterranean Sampling from Quarry at Timor (30 July 2015)	May / June 2015	Liza Hill Principal Ecologist Umwelt Pty Ltd	No stygofauna and troglofauna samples were found in the leaf litter samples
Finding of Subterranean Sampling from Quarry at Timor (29 January 2016)	October 2015	Rebecca Vere Principal Ecologist Umwelt Pty Ltd	A single stygofauna specimen was found in groundwater at site C6. No stygofauna and troglofauna samples were found in the leaf litter samples

4.2.3 Further Actions

Additional data will be presented in the 2016 AEMR, including a cumulative summary of groundwater monitoring undertaken to date. Baseline data will also be reviewed for the next reporting period.

4.3 OPERATIONAL NOISE

Noise monitoring was not conducted during the Reporting Period. DA 308/08, Condition U1.1, states “A *noise compliance assessment shall be undertaken within three months of commencement of operational activities* “

Stoneco is aware of the requirement to undertake noise monitoring and has scheduled noise monitoring to fulfil this condition when production increases, as agreed with UHSC. The results will be reported in the 2017 AEMR.

4.4 DUST

4.4.1 Background

Air quality management at Timor Quarry is undertaken in accordance with the requirements of the Air Quality Management Plan. This document provides impact criteria and monitoring methods required to determine deposited dust at two privately owned residences shown on **Figure 1**, referred to as:

- Residence One (R1) (McIntyre); and
- Residence Two (R2) (Vaughan).

The requirement to measure air quality concentrations of particulate matter less than 10 microns (PM₁₀) (DA 308/08 Condition S1.18.2) is required “*..when the activity reaches the lesser of an annual throughput of 30,000 tonnes of product per annum or 1,100 truckloads of product per annum*”. This requirement has not been triggered in the Reporting Period.

4.4.2 Monitoring Results

Table 9 presents the results of the 2015 depositional dust monitoring. **Table 10** compares the operating averages against the baseline, relevant criteria and predicted EIS outcomes for depositional dust.

Table 9
2015 Depositional Dust Monitoring

Date Sampled	R1 (g / m ² / month)	R2 (g / m ² / month)
19 January 2015	0.4	0.5
26 January 2015	0.4	0.8
23 March 2015	0.4	0.5
20 April 2015	0.2	0.2
18 May 2015	0.3	0.2
15 June 2015	0.3	0.3
20 July 2015	0.6	0.4
17 August 2015	1.8	0.2
14 September 2015	1.8	1.2
19 October 2015	0.9	1.2
16 November 2015	1.1	1.1
14 December 2015	0.6	0.8
2015 Annual Average	0.7	0.6

Table 10
Comparison of Dust Monitoring Results to Relevant Criteria

Receptor Location	Increase above Baseline Criteria (g / m ² / month)	Maximum Criteria* (g / m ² / month*)	Baseline Average (g / m ² / month) (Nov 11 – May 14)**	2015 Annual Average (g / m ² / month)
R1	2.0	4.0	1.1	0.7
R2	2.0	4.0	0.4	0.6

* Development Consent DA308/08 Condition S1.19

**Provided by Stoneco Pty Ltd

Twelve depositional dust samples were collected as required by DA308/08 however it is noted that two samples were collected in January and a sample was not collected in February 2015 (see **Appendix A**).

Depositional dust averages for 2015 are lower than the baseline levels which is expected due to low production levels. Depositional dust averages for 2015 are also less than values predicted in the EIS and the maximum criteria outlined in DA 308/08, Condition S1.19.

4.4.3 Further Actions

Stoneco will continue to implement dust management measures to minimise the emission of dust from the Project Site which may include:

- Covering trucks transporting material as soon as practicable after loading and prior to leaving the Project Site;
- Restricting vehicle speeds on internal access roads;
- Watering of the access road and active areas within the stockpiling and handling area;
- Use of misting water sprays or similar during crushing operations;
- Wherever possible, stripping soil material with sufficient moisture content to minimise dust generation and during appropriate wind conditions; and
- Utilising a drill rig with a water injection or a dust collection system, when undertaking any drilling on the Project Site.

4.5 BLAST

4.5.1 Background

Stoneco has developed and implemented a Blast Management Protocol which describes statutory requirements related to blast vibration and overpressure and measures to ensure that blast events are effectively monitored and managed.

Monitoring of blast characteristics is undertaken at two blast sites (see **Figure 1**), referred to as follows:

- R1 (McIntyre); and
- R2 (Vaughan).

The following data is recorded at each blast event:

- Blast location and name;
- Time and date;
- Weather conditions;
- Peak vector sum (mm/s); and
- Air overpressure peak (dB Linear Peak).

4.5.2 Monitoring Results

There were two blast events during the Reporting Period which were compliant with the relevant criteria. **Table 11** outlines the results of monitoring against the relevant criteria.

There were no exceedances of the relevant blast criteria during the Reporting Period.

Table 11
Blast Monitoring

Blast Reference ID	Blasting Results at Residential Receptors	Maximum Criteria*	Time / Date 2015	R1 Result	R1 Predicted	R2 Result	R2 Predicted
N101215	Blast Overpressure dBA	115 dBA	10 February 3.00 pm	103.7 dBA	114 dBA	97.3 dBA	110 dBA (lin peak)
			10 February 3.56 pm	104.4 dBA		105.5 dBA	
N101215	Ground Vibration (mm/sec)	5 mm / sec	10 February 3.00 pm	0.40 mm/sec	1.0 mm/sec	0.35 mm /sec	5 mm / sec
			10 February 3.56 pm	0.23 mm/sec		0.26 mm/sec	

*Schedule 2 S1.4 Development Consent DA308/08

4.5.3 Further Actions

Stoneco has advised current strategies will be maintained for the next reporting period and will continue to be reviewed following blast events and monitoring.

4.6 ECOLOGY

DA 308/08, Condition S1.21.9 states *“An annual inspection is to be made by persons whose qualifications and/or experience to undertake such inspections, have been approved by Council, during each of the first five (5) years of operation of the quarry of the nesting boxes placed on the Project Site, and also of the health of the planted White Box, Yellow Box and Bundy seedlings. The inspection report must include a review of the condition and use of the nesting boxes.*

Any planted White Box, Yellow Box and Bundy trees that are found to have died are to be replaced, with any actions taken to help ensure that the new plantings have a better chance of becoming established.”

Ecological monitoring of nesting boxes will be conducted and described in the 2017 AEMR. Details will also be included on the implementation of the Biodiversity Management Plan (BMP). As there have been no seedlings planted to date, the requirement for an annual inspection of seedlings has not yet been triggered.

5 COMPLAINTS AND COMMUNITY LIAISON

There were no complaints received from the community during the Reporting Period.

To date, one complaint has been received via UHSC relating to a contractor truck driver travelling across load limited Star's Crossing Bridge towing a 4 axle trailer, which is not permitted. The Driver was disciplined and a copy of the Truck Driver's Code of Conduct, containing a pictorial description of axles permitted on the transport route was provided to the driver.

There were no other complaints received during the Reporting Period.

Liaison with the community continued throughout 2015 via regular meetings with the Community Consultative Committee (CCC). Meetings were held 27 February, 2 June and 1 September 2015.

The meetings are made up of two members of the community, two representatives from Stoneco Pty Ltd and another from UHS Council. Minutes are taken by UHSC as records of the meetings.

6 ACTIONS SUMMARY

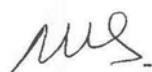
Table 12 outlines actions required by Stoneco, prior to the completion of the AEMR for the 2017 reporting period.

Table 12
Action Required

DA 308/08 Condition	Action Required
U1.1	Conduct a noise compliance assessment
S6.2 (ii) and S3.28	Provide all monitoring results from previous years (Monitoring and sampling data from all previous years must be set out in a cumulative monitoring and sampling table for each subsequent AEMR for the life of the development)
1.12.14	Provide a statement from an appropriately qualified hydrologist for inclusion in the AEMR as evidence that ground waters are not being adversely impacted by quarry construction or operation
1.21.9	Annual inspection of nesting boxes
S5.5 (vii)	Details on the implementation of the BMP, including photographs from fixed and permanent reference points
-	Send email to UHS Council to request the reporting period for future AEMR's be changed to calendar year.

* * *

For
HANSEN BAILEY



Nicole Dobbins
Environmental Scientist



Dianne Munro
Principal

APPENDIX A
Monitoring Data

Site: Timor Limestone Quarry
 Environment Protection Licence number: 13397
 Licensee's name: Stoneco Pty Limited
 Licensee's address: Shop 3/ 166 Kelly St, Scone NSW 2337
 Sampler: Heath Fletcher

Guidelines (LEC, 2010)
 Max 4.0

Monitoring point details

EPA ID number	Location	Pollutant	Units^	Monitoring frequency	Pollutant limits
Q1	Timor Quarry	Particulates - deposited matter	g/m ² /month	Monthly	4.0
R1	McIntyre's Property	Particulates - deposited matter	g/m ² /month	Monthly	4.0
R2	Vaughan's Property	Particulates - deposited matter	g/m ² /month	Monthly	4.0

^g/m²/month = grams per square metre per month

Baseline Results			
Sampling Point	Mean	Min	Max
Q1	1.2	0.1	3.9
R1	1.2	0.1	0.6
R2	0.3	0.1	0.4

Monitoring data

Month	Q1	R1	R2	Date Sampled	Date Obtained	Date published	Compliance	Explanatory notes
Jan-15	2.0	0.4	0.5	19-01-15	26-02-15	02-03-15	Yes	
Feb-15	2.5	0.4	0.8	26-01-00	23-01-00	09-04-15	Yes	
Mar-15	0.6	0.4	0.5	23-03-15	20-04-15	05-05-15	Yes	
Apr-15	0.2	0.2	0.2	20-04-15	18-05-15	26-05-15	Yes	
May-15	0.3	0.3	0.2	18-05-15	15-06-15	24-06-15	Yes	
Jun-15	0.4	0.3	0.3	15-06-15	20-07-15	29-07-15	Yes	
Jul-15	0.4	0.6	0.4	20-07-15	17-08-15	01-09-15	Yes	
Aug-15	0.7	1.8	0.2	17-08-15	14-09-15	10-11-15	Yes	
Sep-15	0.5	1.8	1.2	14-09-15	19-10-15	10-11-15	Yes	
Oct-15	0.7	0.9	1.2	19-10-15	16-11-16	20-11-15	Yes	
Nov-15	2.1	1.1	1.1	16-11-16	14-12-15	15-02-16	Yes	
Dec-15	0.6	0.6	0.8	14-12-15	20-01-16	15-02-16	Yes	
AVE	0.9	0.7	0.6					

Bi-Annual Results			
Sampling Point	Mean	Min	Max
Q1	0.8	0.4	2.1
R1	0.3	0.2	0.4
R2	0.4	0.2	0.8

Site: Timor Limetstone Quarry
 Environment Protection Licence number: 13397
 Licensee's name: Stoneco Pty Limited
 Licensee's address: Shop 3/ 166 Kelly St, Scone NSW 2337
 Sampler: Heath Fletcher

Monitoring point details

EPA ID number	Location	Pollutant	Units^	Monitoring frequency*	Pollutant limits
C1	Off-site near Isis River	EC	µS/cm	15 minutes	1500
		pH		Bi-annually	6.5-8.5
		DO	mg/L	Bi-annually	9.3-11.3
		GDE (150µm)		Bi-annually	n/a
		GDE (50µm)		Bi-annually	n/a
C6	North-east end of site	EC	µS/cm	15 minutes	1500
		pH		Bi-annually	6.5-8.5
		DO	mg/L	Bi-annually	9.3-11.3
		GDE (150µm)		Bi-annually	n/a
		GDE (50µm)		Bi-annually	n/a
Q10	Adjacent extraction area	EC	µS/cm	15 minutes	1500
		pH		Bi-annually	6.5-8.5
		DO	mg/L	Bi-annually	9.3-11.3
		GDE (150µm)		Bi-annually	n/a
		GDE (50µm)		Bi-annually	n/a

^µS/cm = microsiemens per centimetre; mg/L = milligrams per litre

ST - Sample Taken

* Previously (2011) monitoring frequency was quarterly but has been modified to bi-annually

Monitoring data

Month	Pollutant	C1	C6	Q12	Date sampled	Date obtained	Date published	Compliance	Explanatory notes
Nov-14	Conductivity	583			Continuous	Continuous	n/a		Sample not taken as bore was dry or had insufficient groundwater for sample.
	pH	7.4			24-11-14	24-11-14	02-12-14		
	DO	7.6							
	GDE (150µm)	ST							
	GDE (50µm)	ST							
Apr-15	Conductivity	573			Continuous	Continuous	n/a		Sample not taken as bore was dry or had insufficient groundwater for sample.
	pH	7.4			20-04-15	20-04-15	28-04-15		
	DO	8.1							
	GDE (150µm)	ST							
	GDE (50µm)	ST							
Jun-15	Conductivity		521		Continuous	Continuous	n/a		Sample not taken as bore was dry or had insufficient groundwater for sample.
	pH		7.2		15-06-15	15-06-15	22-06-15		
	DO		8.3						
	GDE (150µm)		ST						
	GDE (50µm)		ST						
Oct-15	Conductivity	586	618		Continuous	Continuous	n/a		Sample not taken as bore had little groundwater. Groundwater depth was 17.75m.
	pH	7.2	7.4		19-10-15	19-10-15	10-11-15	Yes	
	DO	6.1	6.8					Yes	
	GDE (150µm)	ST	ST	ST					
	GDE (50µm)	ST	ST	ST					

Baseline				
EC	Mean	Min	Max	
C1	561	537	603	
C6	613	508	1065	
Q12	-	-	-	
pH	Mean	Min	Max	
C1	7.2	7.1	7.4	
C6	7.4	7.3	7.4	
Q12	-	-	-	
DO	Mean	Min	Max	
C1	8.6	5.8	13.5	
C6	8.7	8.0	9.4	
Q12	-	-	-	

Bi-Annual				
EC	Mean	Min	Max	
C1	576	556	610	
C6	-	-	-	
Q12	-	-	-	
pH	Mean	Min	Max	
C1	7.4	7.4	7.4	
C6	-	-	-	
Q12	-	-	-	
DO	Mean	Min	Max	
C1	7.6	7.6	7.6	
C6	-	-	-	
Q12	-	-	-	

Site: Timor Limestone Quarry

Environment Protection Licence number: 13397

Licensee's name: Stoneco Pty Limited

Licensee's address: Shop 3/ 166 Kelly St, Scone NSW 2337

Sampler: Heath Fletcher

Monitoring point details

EPA ID number	Location	Pollutant	Units^	Monitoring frequency*	Pollutant limits
W1	Tributary A ~100m west of Dam	EC	µS/cm	Bi-annually	1500
		Total suspended solids	mg/L	Bi-annually	50
		pH	pH	Bi-annually	6.5 - 8.5
		BOD	mg/L	Bi-annually	20
W2	Dam	EC	µS/cm	Bi-annually	1500
		Total suspended solids	mg/L	Bi-annually	50
		pH	pH	Bi-annually	6.5 - 8.5
		BOD	mg/L	Bi-annually	20
W3	Tributary A ~200m west of Dam	EC	µS/cm	Bi-annually	1500
		Total suspended solids	mg/L	Bi-annually	50
		pH	pH	Bi-annually	6.5 - 8.5
		BOD	mg/L	Bi-annually	20

^µS/cm = microsiemens per centimetre; mg/L = milligrams per litre

* Previously (2011) monitoring frequency was quarterly but has been modified to bi-annually

Monitoring data

Month	Pollutant	W1	W2	W3	Date sampled	Date obtained	Date published	Explanatory notes
Jul-14	EC			285	21-07-14	21-07-14	30-07-14	Sample was not taken due to area being dry
	Total suspended solids			29				
	pH			7.5				
	BOD			8				
Nov-14	EC		176		24-11-14	24-11-14	02-12-14	Sample was not taken due to area arbitrary being dry
	Total suspended solids		358					
	pH		9.0					
	BOD		5					
Apr-15	EC		274	324	20-04-15	20-04-15	28-04-15	Sample was not taken due to area arbitrary being dry
	Total suspended solids		101	10				
	pH		7.1	7.4				
	BOD		13	7				
Oct-15	EC		252		19-10-15	19-10-15	10-11-15	Sample was not taken due to area arbitrary being dry
	Total suspended solids		44					
	pH		7.0					
	BOD		<2					

* water level low algae present