



ARDGLEN QUARRY


2018 Annual Environmental Management Report (AEMR)



PROJECT APPROVAL MP 06_0264

TITLE BLOCK

Table 1: Ardglen Quarry – Title block

Name of operation	Ardglen Quarry
Name of operator	Buttai Gravel Pty Ltd (Daracon Quarries)
Development consent / project approval #	Project Approval MP 06_0624 MOD 1
Name of holder of development consent / project approval	Buttai Gravel Pty Ltd (Daracon Quarries)
Annual Review start date	1 st January 2018
Annual Review end date	31 st December 2018
<p>I, Luke Robinson, certify that this audit report is a true and accurate record of the compliance status of Ardglen Quarry for the period 1st January 2018 to 31st December 2018 and that I am authorised to make this statement on behalf of Buttai Gravel Pty Ltd.</p> <p><i>Note.</i></p> <p><i>a) The Annual Review is an 'environmental audit' for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.</i></p> <p><i>b) The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents—maximum penalty 2 years imprisonment or \$22,000, or both).</i></p>	
Name of authorised reporting officer	Luke Robinson
Title of authorised reporting officer	Systems Manager – Construction Materials
Signature of authorised reporting officer	
Date	18 th April 2019

STATEMENT OF COMPLIANCE

Table 2: Ardglen Quarry – Statement of compliance

Were all of the conditions of the relevant approval complied with?	No
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SUMMARY OF NON-COMPLIANCES

Table 3: Ardglen Quarry – Summary of non-compliances

Condition #	Condition / description	Compliance status – refer legend below	Comment	Where addressed in AEMR
Sch. 3 Cl. 6	As per the DPE's response (31 May 2018) to the Ardglen Quarry 2017 AEMR review, noise monitoring had not been conducted quarterly. Daracon had failed to undertake quarterly noise monitoring as noted in the Noise Monitoring Program.		2018 IEA NC1 - Daracon has engaged an acoustic consultant to implement a quarterly noise monitoring regime. The August 2018 noise monitoring report was included in the updated Noise Management Plan. Results from the August 2018 monitoring campaign showed that Ardglen Quarry was compliant with the relevant noise criteria at all monitoring locations.	Section 4.2
Sch. 3 Cl. 24	There has been no specific rehabilitation during the audit period apart from targeted weed control and ongoing maintenance of offset areas. There has been no progressive rehabilitation undertaken on the site.		2018 IEA NC2 - Daracon have engaged Umwelt to undertake the revision of the Landscape Management Plan (LMP) to address the requirements of clause. The updated LMP is still in progress in order to address all relevant aspects including the long term security of offset areas.	Section 2.12
Sch. 3 Cl. 26; SoC 8	Daracon has not provided long term security for the off-set areas as per the stipulated timeframe.		2018 IEA NC3 - The application for easements over the off-set areas has recently been clarified and we're currently working through the relevant processes.	Section 2.12
Sch. 3 Cl. 29(d)	Section 4 of the Landscape Management Plan (Appendix I in EMS) details Rehabilitation and Biodiversity Offset Management Plan. The landscape management plan which includes the Rehabilitation and Biodiversity Management Plan, while addressing the relevant requirements for this		2018 IEA NC4 - Daracon have engaged Umwelt to undertake the revision of the Landscape Management Plan (LMP) to address the requirements of clause. The updated LMP is still in progress in order to address all relevant aspects including the long term security of offset areas.	Section 2.12

	clause in various sub-sections, is not clear on the five-year plan.			
Sch. 3 Cl. 29(h)	Section 4.2.2 of the Landscape Management Plan (section 4 Rehabilitation and Biodiversity Offset Management Plan / Strategy) states that Daracon Quarries will be responsible for ensuring implementation, monitoring and review of this plan. Roles and responsibilities are not clear.		2018 IEA NC5 - Daracon have engaged Umwelt to undertake the revision of the Landscape Management Plan (LMP) to address the requirements of clause. The updated LMP is still in progress in order to address all relevant aspects including the long term security of offset areas.	Section 2.12
SoC 6	The three off-set areas have been established and are described in the Off-set strategy. The Auditor viewed the off-set area in Lot 187 and while the presence of nest boxes was observed, no evidence of placement of logs and rocks, or the planting of EEC trees was sighted. It was also noted that while the area was fenced, that small grazing animals, such as goats (that are present on the site) would be able to move under the fence in at least one location.		2018 IEA NC6 - Daracon have engaged Umwelt to undertake the revision of the Landscape Management Plan (LMP) to address the requirements of clause. The updated LMP is still in progress in order to address all relevant aspects including the long term security of offset areas.	Section 2.12
SoC 8	Daracon has not provided long term security for the off-set areas as per the stipulated timeframe.		2018 IEA NC7 - The application for easements over the off-set areas has recently been clarified and we're currently working through the relevant processes.	Section 2.12
SoC 12	Revegetation of exposed surfaces has not been undertaken - progressive rehabilitation of the site has not been undertaken.		2018 IEA NC8 - Daracon have engaged Umwelt to undertake the revision of the Landscape Management Plan (LMP) to address the requirements of clause. The updated LMP is still in progress in order to address all relevant aspects including the long term security of offset areas. Further rehabilitation works proposed to be undertaken will be detailed in the LMP and performance will be reported in the Annual Review.	Section 2.12
SoC 15	Re-vegetation of exposed surfaces has not been undertaken - progressive rehabilitation of the site has not been undertaken.		2018 IEA NC9 - Daracon have engaged Umwelt to undertake the revision of the Landscape Management Plan (LMP) to address the requirements of clause. The updated LMP is still in progress in order to address all	Section 2.12

			<p>relevant aspects including the long term security of offset areas.</p> <p>Further rehabilitation works proposed to be undertaken will be detailed in the LMP and performance will be reported in the Annual Review.</p>	
SoC 20	<p>Progressive rehabilitation and revegetation of the site has not been undertaken.</p> <p>Planting along the ridgeline to the west of the Extension Area has not been undertaken.</p>		<p>2018 IEA NC10 - Daracon have engaged Umwelt to undertake the revision of the Landscape Management Plan (LMP) to address the requirements of clause.</p> <p>The updated LMP is still in progress in order to address all relevant aspects including the long term security of offset areas.</p> <p>Further rehabilitation works proposed to be undertaken will be detailed in the LMP and performance will be reported in the Annual Review.</p>	Section 2.12
EPL M2.1 M2.2	<p>The EPL requires only the monitoring of dust by Sampling Method AM-10 (Dust Deposition Gauges). Monitoring is required at three locations (Points 2, 3 and 4). The sampling method used meets the EPL requirements.</p> <p>The lack of monthly monitoring is a breach of this licence condition.</p>		<p>2018 IEA NC11 - The Ardglen Quarry copy of the Environment Protection Licence (EPL 1115) has been updated and the current version is available on site.</p>	Section 5.1
Sch. 3 Cl. 2 And SoC 10	<p>Following an inspection of the site by DPE in their letter to Daracon dated 11 July 2018, DPE noted that the quarterly noise monitoring required by the Daracon's Noise Monitoring Program had not been undertaken. The Auditor understands that annual noise monitoring was, however undertaken. It is the Auditor's opinion that during the care and maintenance period that an exceedance of the noise criteria would be unlikely as no fixed equipment or heavy plant were being operated. However, the lack of monitoring data prevents verification of that opinion.</p>		<p>2018 IEA O1 - Daracon has engaged an acoustic consultant to implement a quarterly noise monitoring regime. The August 2018 noise monitoring report was included in the updated Noise Management Plan. Results from the August 2018 monitoring campaign showed that Ardglen Quarry was compliant with the relevant noise criteria at all monitoring locations.</p>	Section 4.2
Sch. 3 Cl 15	<p>The 2016 AEMR notes that the dust gauge 3 funnel had been stolen with no data collected during Jan-Apr</p>		<p>2018 IEA O2 - An Air Quality Management Plan has been prepared for the site which includes a monitoring program</p>	Section 4.3

	<p>2016. There has been an exceedance - eg Feb 2016 dust gauge measurements indicating 6.4g/m² where maximum is 4g/m² at the D3 dust gauge. This is an exceedance as per Table 10:</p> <p>Long term impact assessment criteria for deposited dust. The breakup of the result was Ash 2.7g/m² and Combustible Matter 3.7g/m². The matter was investigated and found that a whipper snipper used for vegetation removal during dry weather had caused air borne dust at the same time the HVAS filters were being changed.</p> <p>Preventive action to review use of mechanical aids to control vegetation growth around dust gauges and use of non-mechanical aids were proposed. An observation is raised as this matter was not recorded in the 2016 AEMR.</p>		<p>and compliance protocol.</p> <p>Daracon will continue to undertake dust monitoring on site including remedial measures to manage exceedances as required.</p>	
Sch. 3 Cl. 29 (f)	<p>Performance monitoring measures are noted within Table 4.1 of the Landscape Management Plan (section 4 Rehabilitation and Biodiversity Offset Management Plan / Strategy however this does not give detailed descriptions.</p>		<p>2018 IEA O3 - Daracon have engaged Umwelt to undertake the revision of the Landscape Management Plan (LMP) to address the requirements of clause.</p> <p>The updated LMP is still in progress in order to address all relevant aspects including the long term security of offset areas.</p>	Section 2.12
Sch. 3 Cl. 46	<p>Daracon reports greenhouse gas emissions associated with the project in their NGERS reporting however ways to reduce emissions generated by Ardglen Quarry project and other details are not provided in the AEMRs.</p>		<p>2018 IEA O4 - Daracon will include emissions reduction considerations and other details relevant to Ardglen Quarry in future AEMR's.</p>	Section 2.6
Sch. 4 Cl. 1	<p>In 2016, dust exceedance on 17th and 23rd April 2016 were reported to DPE. It is noted that this letter is dated 15 Mar 2016. A minor exceedance of dust criteria during February 2016 was reported to EPA via letter dated 15 Mar 2016. This has been included in the 2016 AEMR and discussed at the CCC meeting of 23 Aug 2016. The presentation made to CCC includes depositional</p>		<p>2018 IEA O5 - Daracon will include compliance criteria level in the presentations given to CCC so that exceedances are clearly represented in the data.</p>	Section 3.4

	<p>dust gauge readings as a chart, indicating the high reading in February 2016 at monitoring station EP4. The minutes of this CCC meeting does not include a reference to the 'minor exceedance' of February 2016 rather notes that "Air monitoring results have reported levels consistently below criteria". The CCC includes four of the landowners in the immediate surroundings of the site. While the presentation to CCC in August 2016 included a chart indicating all dust measurements from May 2017 to May 2016, the chart does not include the compliance criteria and the minutes of the meeting does not refer to the dust exceedance of February 2016 as reported to EPA and DPE.</p>			
Sch. 4 Cl. 3(a)	<p>The 2016 AEMR noted that the dust gauge 3 funnel had been stolen with no data collected during Jan-Apr 2016. There has been an exceedance - in Feb 2016 dust gauge measurements indicating 6.4g/m² where maximum is 4g/m² at the D3 dust gauge. Preventive action to review use of mechanical aids to control vegetation growth around dust gauges and use of non-mechanical aids were proposed. The time of the incident were not reported. An observation is raised as this matter was not reported in detail in the 2016 AEMR.</p>		<p>2018 IEA O6 - Daracon will ensure that future incident reports will note the date, time and nature of the exceedance/incident. Reportable incidents and exceedances will be included in future AEMR's.</p>	Section 5.4
Sch. 3 Cl. 19	<p>Prior to commencing work in the Extension Area: (1) It is recommended that the retention volume of the final sedimentation basin necessary to capture surface waters (to ensure compliance with the EPL) be calculated. The calculation should take into account the area of dirty water catchment from the existing quarry and the extension area.</p>		<p>2018 IEA NTR1 - A revised Water Management Plan including an assessment of basin volumes is included as part of the proposed consent modification. This will be enacted prior to commencing work in the Extension Area.</p>	Section 2.8

	<p>(2) It is recommended that final sediment basin be surveyed to determine if it has sufficient volume to meet the volume requirements determined in (1) above.</p> <p>(3) It is recommended, that if the volume of the final sediment basin is not sufficient, that the ballast dumped in the basin, be removed to increase the basin volume to the required amount.</p>			
Sch. 3 Cl. 21	The Water Management Plan be updated to include an assessment of the reliability of the water supply to the operation. This should be completed prior to the commencement of works in the Extension Area.		2018 IEA NTR2 - A revised Water Management Plan including an assessment of the reliability of the water supply to the operation is included as part of the proposed consent modification. This will be enacted prior to commencing work in the Extension Area.	Section 2.8
Sch. 3 Cl. 22	Operational and maintenance activities on site that could cause soil erosion and sediment generation should be identified and described for in the plan.		2018 IEA NTR3 - Operational and maintenance activities that could cause soil erosion and sediment generation will be identified and described for in the revised Water Management Plan included as part of the proposed consent modification. This will be enacted prior to commencing work in the Extension Area.	Section 2.8
Sch. 3 Cl. 23	<p>The water monitoring plan should be revised to include detailed protocol for investigation, notification and mitigation of water quality exceedances.</p> <p>Details for procedures to manage unforeseen water quality impacts should be included in the site water management plan.</p>		2018 IEA NTR4 - Procedures to manage unforeseen water quality impacts are included in the updated site water management plan included as part of the proposed consent modification. This will be enacted prior to commencing work in the Extension Area.	Section 2.8
Sch. 3 Cl. 34	Daracon should consult DPE prior to engaging the Road Safety Audit consultant for approval. The audit should be prepared and conducted in consultation with RMS and Council.		2018 IEA NTR5 - The Road Safety Audit (RSA) was completed in 2018 with consultation with RMS and LPSC into early 2019. The RSA report was submitted to DPE on the 18th February 2019.	Section 2.11
Sch. 3 Cl. 44	Daracon should implement all practicable measures to mitigate impacts from off-site lighting upon recommencement of operations. Daracon should ensure that all external		2018 IEA NTR6 - There is currently no external lighting associated with the operation of Ardglan Quarry, however if this was to change in the future, then Daracon would ensure compliance with Australian	Section 2.7

	lighting associated with the project complies with Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting and have the satisfaction of the Director-General on record upon recommencement of operations.		Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting to the satisfaction of the Director-General.	
Sch. 3 Cl. 11	Blast SWMS should be updated to ensure that appropriate communications and fly rock protection are in place for blasting a within 500 m of adjacent land. It would be wise to make this a standard provision for all blasts since much of the quarry is with 500 m of adjacent land.		2013 IEA 1 - No blasting has occurred during the audit period and there are no current plans for the recommencement of blasting. The SWMS will be reviewed and updated prior to blasting and/or entering the extension area.	Section 2.2
Sch. 3 Cl. 20	It is recommended that surface water quality monitoring is implemented regardless of the operational status of the quarry.		2013 IEA 2 - A revised Water Management Plan including an assessment of basin volumes is included as part of the proposed consent modification. This will be enacted prior to commencing work in the Extension Area.	Section 2.8
Sch. 3 Cl. 26	In order to secure the offset areas a VCA or similar mechanism should be implemented as soon as practicable.		2013 IEA 3 - The application for easements over the off-set areas has recently been clarified and we're currently working through the relevant processes.	Section 2.12
Sch. 3 Cl. 44	An assessment of external lighting against AS4282 (INT) 1995 is required to be submitted to the DG.		2013 IEA 4 - There is currently no external lighting associated with the operation of Ardglan Quarry, however if this was to change in the future, then Daracon would ensure compliance with Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting to the satisfaction of the Director-General.	Section 2.7
Sch. 3 Cl. 47(a)	Daracon's accounting system should be used to track the waste contractors on site.		2013 IEA 5 - Waste tracking documentation is completed and available.	Section 2.5
Sch 4 Cl. 1	Monitoring results are to be reported to the relevant authorities/people in the required timeframes.		2013 IEA 6 - The CCC presentation has been updated to show the compliance level criteria. This will be presented to the CCC during late April or early May 2019. Current and future incident investigations will include all relevant details associated with the matter. All incidents and exceedances will be included in future AEMR's.	Section 5.4

SoC 7	Daracon should consider additional measures to control wild goats as the fencing is not considered sufficient control.		2013 IEA 7 - Ongoing maintenance occurs for the various offset areas including fences and gates. Consider appropriate feral animal control as required.	Section 4.4
SoC 8	A VCA, or similar mechanism should be implemented as soon as practicable.		2013 IEA 8 - The application for easements over the off-set areas has recently been clarified and we're currently working through the relevant processes.	Section 2.12
SoC 9	Blast SWMS should be updated to ensure that appropriate communications and fly rock protection are in place for blasting a within 500 m of adjacent land. It would be wise to make this a standard provision for all blasts since much of the quarry is with 500 m of adjacent land.		2013 IEA 9 - No blasting has occurred during the audit period and there are no current plans for the recommencement of blasting. The SWMS will be reviewed and updated prior to blasting and/or entering the extension area.	Section 2.2

COMPLIANCE STATUS LEGEND

Risk level	Colour code	Description
High	Non-compliant	Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence
Medium	Non-compliant	Non-compliance with: <ul style="list-style-type: none">• potential for serious environmental consequences, but is unlikely to occur; or• potential for moderate environmental consequences, but is likely to occur
Low	Non-compliant	Non-compliance with: <ul style="list-style-type: none">• potential for moderate environmental consequences, but is unlikely to occur; or• potential for low environmental consequences, but is likely to occur
Administrative non-compliance	Non-compliant	Only to be applied where the non-compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions)

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1. INTRODUCTION

1.1 Scope

This report has been prepared by Daracon Quarries, in accordance with Schedule 5 Condition 4 of the Project Approval MP 06_0264 to record the activities and environmental monitoring undertaken within and surrounding Ardglen Quarry during the period 1st January 2018 to 31st December 2018.

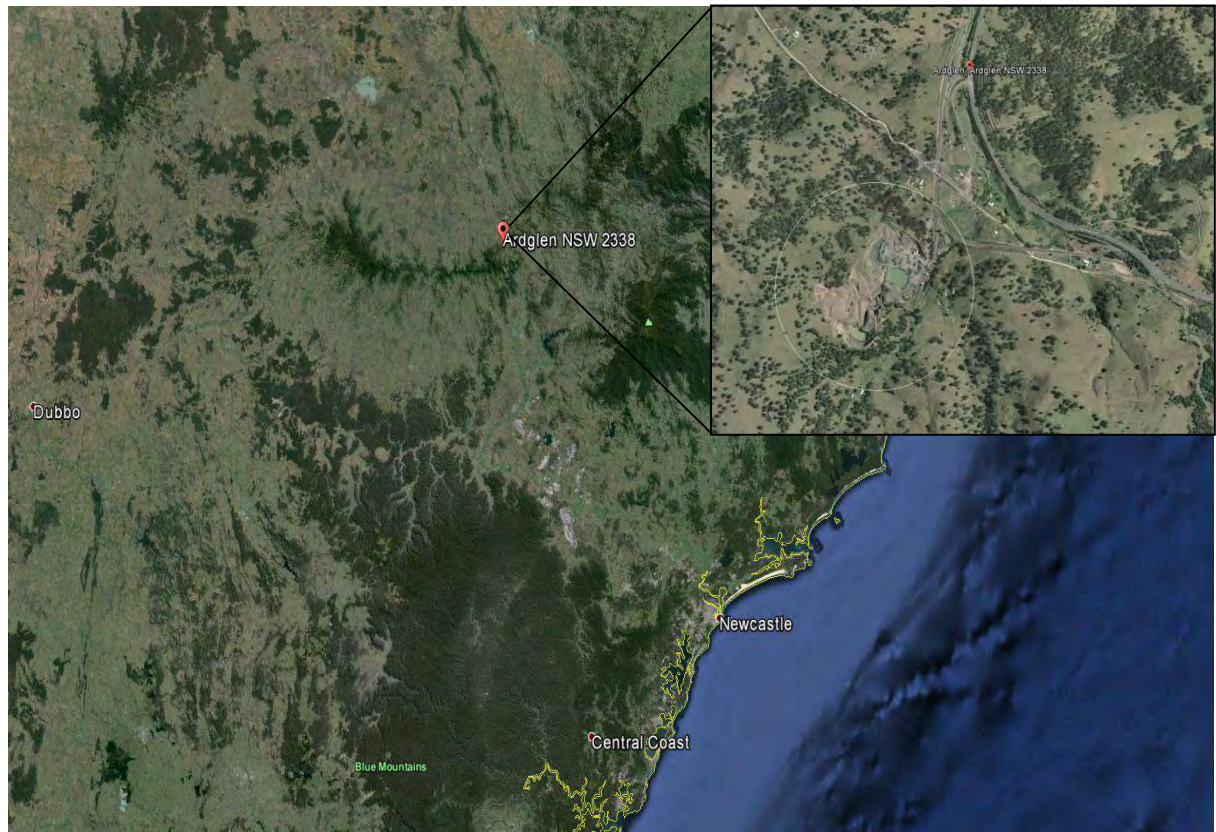


Figure 1: Quarry Location

On 2nd December 2008 Daracon was granted approval (Project Approval MP 06_0264) under part 3A of the Environmental Planning & Assessment Act 1979 to extend the existing quarry operations in a westerly direction into Lot 218 (DP 751028). In December 2010, Modification 1 (MOD 1) for Project Approval MP 06_0264 was implemented and remains valid today.

Daracon ceased operations at Ardglen Quarry in February 2012 and the site was placed into "care and maintenance" at that time.

In August 2018, Ardglen quarry was taken out of "care and maintenance" due to the need for material at the Scone Bypass Project (SBP). This was communicated to the community and relevant regulatory authorities as part of the recommencement process.

This document provides an overview of activities and environmental monitoring that occurred within the reporting period and also activities and environmental monitoring planned for 2018. This Annual Environmental Management Report (AEMR) contains the following:

- A description of activities that were carried out in 2018;
- A review of the environmental monitoring results that were carried out in 2018;
- Results of the Independent Environmental Audit that was carried out in 2018;
- A description of measures that will be implemented throughout 2018 to improve the environmental performance of the Quarry;

1.2 Standards and Performance Measures

The owner and operator of Ardglen Quarry, Daracon Quarries (Trading as Buttai Gravel Pty Ltd) is required to operate the approved activities within the Quarry site in accordance with MP 06_0624 MOD 1 and licences listed in **Table 4**.

Table 4: Ardglen Quarry - Consents and Licences

Approval/Licence	Issue Date	Expiry Date
Project Approval MP 06_0624 MOD 1	December 2010	31 August 2038
Environment Protection Licence No.1115		1 January (anniversary date)

Relevant conditions with Project Approval MP 06_0624 which nominate specific environmental criteria are as follows:

- *Schedule 3 Condition 2: Noise*
- *Schedule 3 Condition 7: Blasting and Vibration*
- *Schedule 3 Condition 15: Air Quality*
- *Schedule 3 Condition 18: Meteorological Monitoring*
- *Schedule 3 Condition 19: Surface and Ground Water*

In addition to the specific environmental criteria, the following conditions within MP 06_0624 specifically request further information be included in each AEMR:

- *Schedule 3 Condition 33: Product Transport*
- *Schedule 3 Condition 46: Greenhouse Gas*
- *Schedule 3 Condition 47: Waste Minimisation*

1.3 Site Management And Responsibilities

The overall management of Ardglen Quarry is the responsibility of Daracon's Manager Quarries, Mr Paul Walker. While the Quarry was in "care and maintenance", environmental monitoring is arranged by Mr Luke Robinson (Systems Manager) and Mr Geoff Reeves (Quarry Supervisor). Site supervision is also ably assisted by Daniel Smith (Supervisor) and Scott Brown (Supervisor). Other companies involved with quarry related documentation and monitoring data include:

- RCA Aust. Pty Ltd Laboratories;
- Rubicon Enviro Pty Ltd;

1.4 Document Preparation

The following information and data for this report has been drawn from documents commissioned or held by Daracon.

- Environmental Management Strategy Ardglen Quarry Extension - Major Project 06/0264, September 2010, Orogen Pty Ltd.
- Ardglen Quarry Environmental Monitoring Folders.

This document has been prepared by Mr Luke Robinson of Daracon Quarries.

In response to correspondence dated 31st May 2018 as well as a number of additional requests received from the NSW Department of Planning and Environment (DPE), **Table 5** below includes the details of specific requests for additional information as well as the relevant action taken.

Table 5: DPE requests for additional information

DPE requests	Action taken
Please consider the Department's Annual Review Guideline (October 2015) in the preparation of the AEMR	Daracon has reviewed the Department's Annual Review Guideline (October 2015) and incorporated the details into the 2018 AEMR
Please note that the approval was modified in 2010 (MOD 1). Please ensure the most recent approval is referred to in the AEMR	Daracon has updated the 2018 AEMR to ensure that reference to the most recent approval is included
Update the Traffic and Transport Management Plan	During the reporting period and associated with the export of material to the SBP, the Transport and Traffic Management Plan (TTMP) and truck driver Code of Conduct (CoC) were updated and approved by the DPE
Update the Noise Management Plan	During the reporting period the Noise Management Plan (NMP) was updated and approved by the DPE
Update the Air Quality Management Plan	During the reporting period the Air Quality Management Plan (AQMP) was updated and approved by the DPE

Undertake a Road safety audit	During the reporting period and associated with the export of material to the SBP, a Road Safety Audit (RSA) was completed. Significant consultation occurred with the Roads and Maritime Service (RMS) and Liverpool Plains Shire Council (LPSC) regarding the actions associated with the RSA
Develop and circulate the Annual Newsletter	Daracon developed an Annual Newsletter in late 2018 for circulation to the local community during early 2019.
Undertake the 5 yearly Independent Environmental Audit	During the reporting period, Daracon engaged Pitt and Sherry (P&S) to undertake the 5 yearly Independent Environmental Audit (IEA). The results of the IEA were communicated to DPE with actions ongoing as summarised in Table 3
Complaints received via the DPE	<p>During the reporting period, we received no pollution complaints however we did receive two complaints as detailed below:</p> <ul style="list-style-type: none">• A complaint was received from a member of the community via the NSW Department of Planning and Environment (DPE) alleging excessive truck speed through the township of Ardglen. This matter was appropriately addressed and closed in consultation with the DPE;• A complaint was received from a member of the community via the NSW Department of Planning and Environment (DPE) querying a number of matters associated with the Community Consultation Committee (CCC). These matters were also appropriately addressed and closed in consultation with the CCC and DPE;

2. OPERATIONS DURING THE REPORTING PERIOD

2.1 Introduction

Prior to August 2018, Ardglen quarry remained in "care and maintenance". Ardglen quarry was taken out of "care and maintenance" during the latter part of 2018 due to the need for material at the Scone Bypass Project (SBP). **Table 6** lists the activities that did occur at Ardglen Quarry throughout 2018. Additionally, Daracon are currently working on a consent modification to streamline the operation of the quarry going forward. The details of the proposed consent modification are included in various parts of this report as applicable.

Table 6: Operations during the Reporting Period

January	Weekly Site Inspections
February	Weekly Site Inspections
March	Weekly Site Inspections
April	Weekly Site Inspections
May	Weekly Site Inspections
June	Weekly Site Inspections
July	Weekly Site Inspections
August	Weekly Site Inspections and exporting of earth fill to the Scone Bypass Project
September	Weekly Site Inspections and exporting of earth fill to the Scone Bypass Project
October	Weekly Site Inspections and exporting of earth fill to the Scone Bypass Project
November	Weekly Site Inspections
December	Weekly Site Inspections

2.2 Extraction And Clearing Operations

Table 7 records the monthly/annual sales of various products produced at Ardglen Quarry during 2018.

Table 7: Ardglen Quarry Sales (tonnes)

2018 Month	Aggregates	Road Pavements	Other	Total
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	0	0	0	0
June	0	0	0	0
July	0	0	0	0
August	0	0	10,954	10,954
September	0	0	16,584	16,584
October	0	0	14,250	14,250
November	0	0	0	0
December	0	0	0	0
Total	0	0	41,788	41,788
Source: Ardglen tracking records				

Although 41,788 tonnes of earth fill (general and select fill) was exported from Ardglen Quarry during the latter part of 2018, no blasting, quarrying or extraction operations took place during the reporting period to obtain this material as it remained in stockpile from previous operations before the quarry was placed in “care and maintenance” in 2012.

Subject to the approval of the current consent modification, the status of blasting, quarrying and extraction operations will remain unchanged unless otherwise advised.

2.3 Processing Operations

Nil processing operations took place during 2018.

2.4 Overburden and Silt Management

Nil overburden was removed during 2018.

Nil silt removal occurred during 2018.

2.5 Waste Management

Although there was material exported to the SBP, no production took place during 2018 which meant that there was no production waste generated as follows:

- General Demolition Waste – Nil;
- Recyclable Concrete – Nil;
- Paper & Cardboard – Nil;
- Scrap Steel – Nil;
- Recyclables – Nil;
- Waste Oil – Nil;
- Waste Oil Filters – Nil;
- Empty Drums – Nil;
- Grease – Nil;
- Oily Water – Nil;
- Batteries – Nil;
- Asbestos Containing Material – Nil;

It is worth noting however, that a small quantity of general landfill waste was generated as part of the operation of the site. This was disposed of via general waste bins, collected and disposed via appropriate means. A waste register was completed for this small quantity of general landfill waste and it is included in Appendix 7.

2.6 Emissions

Daracon is committed to ongoing emission reduction strategies as part of the operation of Ardglan Quarry. The current mitigation measures currently employed on site to ensure particulate matter emissions are minimised include:

- Sealing the haul road to the wheel wash / weighbridge;
- Limiting the speed limit on unpaved surfaces to 15 km/hr;
- High level watering of unpaved road surfaces (greater than 2L/m²/hr);
- Covering all loads leaving the site;
- Building a wheel wash at the end of the unpaved section of the haul road;
- Wet suppression of static stockpiles;

Additionally, the proposed mitigation measures to ensure particulate matter emissions are minimised include:

- Revegetation of exposed surfaces where available;
- Regular inspection and fault reporting for mobile plant and equipment;
- Prompt rectification of reported faults associated with mobile plant and equipment;
- As part of the forward planning for site, considering the use of renewable energy sources including solar, wind and battery storage for example;
- Analysing the regular NGERS / NPI reports for trends and potential avenues for emission reductions;
- Minimise energy consumption on site by:
 - Shutting down plant and equipment when not used;
 - Regular servicing of plant and equipment;
 - Walking in preference to vehicular use where possible;

2.7 Site Infrastructure And Services

Ardglan quarry was taken out of "care and maintenance" during the latter part of 2018 due to the need for material at the Scone Bypass Project (SBP). As part of this process, a number of activities occurred on site:

- The weighbridge was recommissioned, recalibrated and put back into operation;
- The arrangement of the temporary site office on site was modified;
- A wheel wash was installed, commissioned and utilised as part of the material export to the SBP;
- Following the decommissioning of the electrical substation, there is currently no external lighting associated with the operation of Ardglan Quarry, however if this was to change in the future, then Daracon would ensure compliance with Australian Standard AS4282 (INT) 1995;

2.8 Water Management

Figure 2 displays the current water management system in place at Ardglan Quarry. During the reporting period there was some minor maintenance to the various drainage and sedimentation control structures on site.

A revised Water Management Plan, including the following is included as part of the proposed consent modification. This will be enacted prior to commencing work in the Extension Area.

- An assessment of basin volumes is included as part of the proposed consent modification;
- An assessment of the reliability of the water supply to the operation is included as part of the proposed consent modification;
- Operational and maintenance activities that could cause soil erosion and sediment generation will be identified and described;
- Procedures to manage unforeseen water quality impacts;
- Water treatment processes to enable discharge as required (subject to the approval of a variation to the site EPL);



Figure 2: Water Management

2.9 Bushfire Management

No bushfire prevention activities occurred during this reporting period.

2.10 Hazardous Materials Management

Hazardous materials within the Quarry site are appropriately managed with incidental quantities of fuels and oils located in an appropriately bunded area. During this reporting period there was no bulk diesel fuel stored onsite.

Incidental quantities of aerosols and weed poison are also stored within the appropriately bunded area.

2.11 Product Transportation

The transportation of products, both imported and exported is identified in Schedule 3 Condition 33.

Condition 33 - *The Proponent shall:*

(a) *keep records of the:*

- *amount of quarry materials imported onto the site each year – Refer to commentary below;*
- *amount of product transported from the site each year – Refer to Table 7;*
- *number of truck movements generated by the project, on a weekly basis - Refer to table 8;*
- *number of train movements generated by the project, on a weekly basis - Refer to commentary below;*
- *date and time of each train movement generated by the project - Refer to commentary below;*

- (b) provide annual production data to the DPI using the standard form for that purpose – *Completed via separate submission to the DPI*; and
- (c) include these records in the AEMR – *Included here*.

During the reporting period there was no material imported to site or material exported by rail transport. Details of truck movements generated by the project during the reporting period are shown in **Table 8**.

Table 8: Truck movements generated by the project

Dates	Maximum loaded truck movements per day during period	Average loaded truck movements for the period
Week ending 19/8/18	27	24.3
Week ending 26/8/18	27	27
Week ending 2/9/18	27	26.8
Week ending 9/9/18	27	22.2
Week ending 16/9/18	27	26.8
Week ending 23/9/18	27	27
Week ending 30/9/18	27	26.2
Week ending 7/10/18	27	27
Week ending 14/10/18	27	27
Week ending 21/10/18	27	27
Week ending 28/10/18	27	26.2
For entire reporting period	27	26.1

Source: Ardglan tracking records

Additionally, a Road Safety Audit (RSA) was completed during the reporting period which included substantial consultation with RMS and Liverpool Plains Shire Council (LPSC). The RSA report was submitted to DPE on the 18th February 2019 and a copy is included in Appendix 9. Work on the proposed agreed remedial actions commenced during early 2019 and are currently ongoing.

2.12 Rehabilitation

No specific rehabilitation occurred during the reporting period apart from targeted weed control and ongoing maintenance of offset areas. As part of the revised Landscape Management Plan (LMP) currently being developed by Umwelt, we anticipate ongoing rehabilitation will occur progressively as areas become available for such. We will submit the revised LMP to the DPE for review and approval by the 24th May 2019;

With respect to the specific aspects of the proposed rehabilitation and landscape measures, we provide the following status updates:

- The Offset Strategy (S3_C25) – The most appropriate mechanism for the provision of long term security of the off-set areas has recently been clarified and we're currently working through the relevant processes as described by the Biodiversity Conservation Trust (BCT). The Offset Strategy will further be described within the revised LMP currently being developed by Umwelt;
- The Landscape Management Plan (S3_C27) – The Landscape Management Plan is currently under review and we will submit the revised LMP to the DPE by the 24th May 2019;
- The Doughboy Hollow Creek Rehabilitation Strategy (S3_C28) – Due to the fact that this particular strategy "shall commence prior to the start of quarry operations into the approved extension area", this strategy remains incomplete at this stage. This strategy will be finalised as part of the planning processes to enter the extension area; subject to the approval of the proposed consent modification;
- The Rehabilitation and Biodiversity Offset Management Plan (S3_C29) – The Rehabilitation and Biodiversity Offset Management Plan will form an integral component of the revised LMP which is currently under review. We will submit the revised LMP to the DPE by the 24th May 2019;

Also refer to Table 3 and Appendix 8 for a summary of the non-compliances arising from the IEA undertaken by Pitt and Sherry.

2.13 Closure

The revised LMP will include information regarding the proposed closure arrangements. We expect to submit the revised LMP to the DPE for review and approval by the 24th May 2019;

3. COMMUNITY RELATIONS

3.1 Surrounding Communities

Figure 3 displays the land ownership and residence surrounding the quarry. During the reporting period, it is understood that there were no changes to the land ownership within the area. Informal discussions have occurred with a number of residents in the area during the reporting period.

Residents of Ardglan



Figure 3: Land Ownership and Residents

Table 9: Land Owners and Residents

Land Owners and Residents	
County Property Holdings Pty Limited	Mr R G & Mrs A R Maxwell
County Property Holdings Pty Ltd	Mr R K Best & Ms T M Hall
E & J Taylor	Mr R S Blomeley
Land and Property Management Authority	Mr R W Hancock
Mr A W Harris	Mr W E & Mrs E A Avery
Mr D J Bates	Mrs J Taylor
Mr D J Burraston	Ms A Bojba-Lis
Mr G B Smith & Ms N E Ryder	Ms C M Thompson
Mr G N & Mrs M A Lewins	Ms E G Russell
Mr J Orr	Ms M Taylor
Mr K J & Mrs J Martin	Ms P Purtell & Mr S Harms
Mr P A Bojba	The State of New South Wales
Mr P Colbert	Hunter Industrial Rental Equipment Pty Ltd

3.2 Community Consultative Committee Meetings

In mid-2015 Daracon sought approval for an Independent Community Consultative Committee Chairperson. Approval was granted for PEP Consulting to undertake the Independent Chairperson position. Following the appointment, PEP Consulting engaged with the community to re-establish a Community Consultative Committee (CCC) and establish community representatives. This process

was finally resolved in July 2016 with the first CCC meeting held 23rd August 2016. Refer to Section 3.4 for more information.

3.3 Environmental Complaints

Daracon received no pollution complaints during the reporting period, however we did receive two complaints as detailed in Appendix 4.

3.4 Community Involvement

During the reporting period, PEP Consulting facilitated two meetings between Daracon and the CCC representatives. The first meeting occurred on the 9th April 2018 and the second meeting occurred on the 16th October 2018 with both the “agreed” and “draft” meeting minutes included in Appendix 3. All matters raised in the CCC meeting minutes are either resolved or currently in progress.

Furthermore, both PEP Consulting and Daracon circulated a community newsletter in early 2019 to provide additional information to the local residents regarding the CCC and planned activities associated with the operation of Ardglan Quarry.

Daracon also updated the CCC presentation to include compliance criteria level to make it simpler for the community to understand the information presented.

4. ENVIRONMENTAL MONITORING

4.1 Water Quality

4.1.1 Introduction

Ardglan Quarry operates under an approved Site Water Management Plan. The purpose of this plan is to ensure that Ardglan Quarry does not pollute any waters it may discharge into, in accordance with Environmental Protection Licence No. 1115. The water monitoring plan proposes that prior to any discharge from the sediment basin, the water be tested for turbidity using a probe and visually assessed for the presence of oil and grease.

Ardglan Quarry has two sediment basins onsite, the in-pit sump which is approximately 30ML and a final sediment basin which is approximately 3ML. Currently all water from the disturbed area is directed towards the in-pit sump and when this becomes full, water is then directed to the smaller (3ML) sediment basin for storage and re-use.

4.1.2 Conclusion

During the reporting period, nil water was discharged from site.

4.2 Noise and Blasting

4.2.1 Introduction

Ardglan Quarry operates under an approved Noise Monitoring Program and Blast Monitoring program. These programs outline the measures which will mitigate the environmental effects of noise and blasting of the quarry activities on our neighbours; proposes noise monitoring programs to assess and report the levels of impact, in compliance with Schedule 3 of the Project Approval and provides a mechanism whereby any noise complaints can be dealt with quickly and effectively.

The Blast Monitoring program requires monitoring to take place at specified locations as shown in **Figure 4**. The Noise Monitoring Plan calls for quarterly attended noise monitoring to be completed and take place at specified noise monitoring locations as shown in **Figure 5**.

During the reporting period, the Ardglan Quarry Noise Management Plan (NMP) was updated and subsequently approved by the DPE.



Figure 4: Blast Monitoring Locations



Figure 5: Noise Monitoring Locations

4.2.2 Noise Criteria

Table 10: Noise Criteria

NOISE IMPACT ASSESSMENT CRITERIA dB(A)				
Land	Day Leq (15 min)	Evening Leq (15 min)	Night	
			Leq (15 min)	L1 (1 min)
1 Burraston	35	35	35	45
3 Rose	35	35	35	45
4 C M Thompson	44	35	35	45
5 M Taylor	45	35	35	45
6 S Thompson	45	35	35	45
9 Bates	37	35	35	45
10 Avery	38	35	35	45
11 Shipman	37	35	35	45
12 Hall	36	35	35	45
13 McGhie	35	35	35	45
14 Purtell	36	35	35	45
15 J Taylor	43	35	35	45
16 Bojba	40	35	35	45
All other privately owned land	35	35	35	45

4.2.3 Noise Monitoring Results

Due to the fact that Ardglan quarry was non-operational, limited noise monitoring was undertaken prior to 2018. During 2018, quarterly noise monitoring of the site recommenced in earnest and the results of the recently recommenced quarterly noise monitoring are summarised in Table 11 and Table 12.

Table 11: Noise monitoring 16th August 2018

Ardglan Quarry noise monitoring results – 16 th August 2018 (day)				
Location	Time	dB(A), Leq	Wind speed/ direction	Identified Noise Sources
4. Thompson	4:17 pm	48	2 m/s NNW	Traffic (47), birds (25), AQ barely audible
13. McGhie	4:55 pm	41	2.5 m/s NW	Birds (39), traffic (36), AQ inaudible
14. Purtell	4:35 pm	52	1 m/s NW	Traffic (52), birds (40), AQ barely audible
16. Bojba	4:00 pm	52	1 m/s NW	Traffic (52), birds (40), AQ inaudible

Table 12: Noise monitoring 16th November

Ardglen Quarry noise monitoring results – 16 th November 2018 (day)				
Location	Time	dB(A),Leq	Wind speed/ direction	Identified Noise Sources
4. Thompson	2:40 pm	42	2.5 m/s S	Traffic (41), birds (34), AQ inaudible
13. McGhie	3:30 pm	40	4 m/s S	Traffic (37), birds (37), AQ inaudible
14. Purtell	3:10 pm	45	2.5 m/s S	Traffic (43), birds (42), AQ inaudible
16. Bojba	2:00 pm	44	2.5 m/s S	Traffic (44), birds (36), AQ inaudible

4.2.4 Blasting Criteria

Table 13: Blasting Criteria

Airblast overpressure level (dB(Lin Peak))		Allowable exceedance
115		5% of the total number of blasts over a period of 12 months
120		0%
Peak Particle Velocity (mm/s)		Allowable exceedance
5		5% of the total number of blasts over a period of 12 months
10		0%

4.2.5 Blasting Monitoring Results

Nil blasts were carried out in the reporting period.

4.2.6 Analysis of Results

The results of the noise monitoring undertaken in August and November 2018 are included in Appendix 2. These results were all below the specified criteria.

No blasting occurred during the reporting period, so therefore no blast monitoring was completed.

4.2.7 Conclusion

The noise monitoring results were within the specified limits and when operations recommence blast monitoring will then recommence. During the reporting period, the DPE provided advice regarding our non-compliance with the Consent from a noise monitoring perspective. This matter has now been resolved and we are now undertaking quarterly noise monitoring on a permanent basis.

4.3 Air Quality

4.3.1 Introduction

Ardglen Quarry operates under an approved Air Quality Management Plan. The objectives of this plan is to comply with all statutory requirements, minimise air quality impacts on surrounding residents and properties, maintain reasonable levels of amenity for surrounding residents, to keep the local community and regulators informed and to respond quickly and effectively to issues and complaints and to ensure that air quality is

measured according to best practice and results are presented in a timely and transparent manner to stakeholders.

During the reporting period, the Ardglan Quarry Air Quality Management Plan (AQMP) was updated and subsequently approved by the DPE.

4.3.2 Meteorological Station

Condition 18 (32) requires that a meteorological station to operate in the vicinity of the project site for the life of the project. Daracon has installed a meteorological station (Figure 6), ensuring that the meteorological station complies with the requirements in the "Approved Methods for Sampling of Air Pollutants in New South Wales Guideline".

The meteorological station currently monitors the following parameters as per EPL 1115:

- Rainfall;
- Wind Speed and Direction;
- Temperature (at 2m and 10m above ground level);
- Sigma theta;
- Solar Radiation;

4.3.3 Air Quality Monitoring Locations and Frequency

The current air quality monitoring network consists of three deposited dust gauges (DDG), two HVAS units and one TSP unit (see **Figure 6**).

The location of the air quality monitoring equipment (primarily to the North-East and East of the Quarry) was deduced from the location of the surrounding residences.



Figure 6: Air Quality Monitoring and Weather Station Locations

4.3.4 Air Quality Criteria

The air quality criteria for the quarry, as outlined with condition 15 (10) of the approval are provided in the below table.

Table 14: Air Quality Criteria

Parameter	Frequency	Locations	Limit/Guideline	Sampling Method
Deposited dust	Monthly.	DG-1 located at Receptor 2 (EPL point 2). DG-2 located at Receptor 5 (EPL point 3). DG-3 located at Receptor 6 (EPL point 4).	Deposition Rate* Maximum total deposited dust level: 4 g/m ² .month - as an annual average	AM-19 AS3580.10.1 – 2003
Total suspended particulate (TSP) matter	24 hours every 6 days for 12 months.	TSP-1 located at Receptor 2. Removed after 12 months.	Concentration 90 µg/m ³ - as an annual average	AM-15 AS3580.9.3 – 2003
Particulate matter < 10 µm (PM ₁₀)	24 hours every 6 days.	PM10-1 located at Receptor 2. PM10-2 located at Receptor 6.	Concentration 50 µg/m ³ - as a 24 hour average 30 µg/m ³ - as an annual average	AM-16 AS3580.9.6 - 2003
Visible air pollution	Weekly. In response to any visible emissions complaint.	Weekly site inspection. At the location of any reported emission.	Project Approval Schedule 3, Condition 16 The Proponent shall ensure any visible air pollution generated by the project is assessed regularly, and that quarrying operations are relocated, modified, and/or stopped as required to minimise air quality impacts on privately-owned land, to the satisfaction of the Director-General.	No required sampling methodology. Actions required if visual impact is suspected or confirmed.
Meteorological station	Continuous.	On site near the weighbridge.	Project Approval Schedule 3, Condition 18 The Proponent shall ensure the project has a suitable meteorological station in the vicinity of the site that complies with the requirements in <i>Approved Methods for Sampling of Air Pollutants in New South Wales</i> guideline.	AM-1 to AM-4 USEPA (2000) EPA 454/R-99-005
Greenhouse gases (electricity and fuel consumption)	Upon purchase of electricity or fuel.	Entire site.	Project Approval Schedule 3, Condition 46(a) The proponent shall monitor the greenhouse gas emissions generated by the project.	No required sampling methodology. Records of purchase and storage used to determine consumption.

4.3.5 Air Quality Monitoring Results

The following information presents the results of the Dust Deposition Gauges (DDG), High Volume Air Sampler (HVAS) and Total Suspended Particulate (TSP) monitoring program.

4.3.5.1 Depositional Dust Gauges

Table 15: Depositional Dust Gauge Results

	Insoluble Solids (g/m ² .month)			Insoluble Solids Annual Average (g/m ² .month)		
	EPA2	EPA3	EPA4	EPA2	EPA3	EPA4
Jan-18	0.7	1.1	0.7	0.5	0.8	0.6
Feb-18	0.6	0.8	0.8	0.5	0.7	0.6
Mar-18	0.5	3.3	0.6	0.5	1.0	0.6
Apr-18	0.2	0.6	0.4	0.5	1.0	0.6
May-18	0.8	0.7	0.6	0.5	0.9	0.6
Jun-18	0.4	0.5	0.3	0.5	0.9	0.6
Jul-18	0.4	0.7	0.5	0.5	0.9	0.8
Aug-18	0.7	0.7	0.8	0.5	0.9	0.6
Sep-18	4	3.9	3.2	0.8	1.2	0.8
Oct-18	0.9	5.2	0.7	0.8	1.6	0.8
Nov-18	2.6	2.8	2.3	1	1.7	1
Dec-18	2.2	1.4	2	1.2	1.8	1.1

4.3.5.2 HVAS Unit 1 (PM10-1)

Table 16: HVAS Unit 1 Results

		Sample #	Run Date	PM10	Filter #	Date Off	Time Off	Tech	Hrs
Jan-18	PM10-1	1189733018	1/01/2018	11	9518279	3/01/2018	8:13	Client	24.02
	PM10-1	1189733021	7/01/2018	15	9518282	10/01/2018	11:31	Client	24.24
	PM10-1	1189733024	13/01/2018	2	9518285	15/01/2018	8:29	Client	24.01
	PM10-1	1189733027	19/01/2018	16	9518288	23/01/2018	11:33	Client	24.02
	PM10-1	1189733030	25/01/2018	25	9518291	30/01/2018	11:33	Client	24.01
Feb-18	PM10-1	1189733033	31/01/2018	16	9520057	5/02/2018	13:26	Client	24.02
	PM10-1	2189733018	6/02/2018	11	9520060	9/02/2018	7:58	Client	24.01
	PM10-1	2189733021	12/02/2018	19	9520063	14/02/2018	9:46	Client	24.03
	PM10-1	2189733024	18/02/2018	23	9520066	23/02/2018	9:44	Client	24.01
Mar-18	PM ₁₀₋₁	3189733018	2/03/2018	17	9520072	5/03/2018	11:06	Client	23.76
	PM ₁₀₋₁	3189733021	8/03/2018	6	9518577	13/03/2018	11:56	Client	24.01
	PM ₁₀₋₁	3189733024	14/03/2018	8	9518580	16/03/2018	9:59	Client	24.01
	PM ₁₀₋₁	3189733027	20/03/2018	37	9518583	22/03/2018	12:40	Client	24.02
	PM ₁₀₋₁	3189733030	26/03/2018	11	9518586	29/03/2018	8:24	Client	24.00
Apr-18	PM ₁₀₋₁	4189733018	1/04/2018	12	9518589	5/04/2018	13:17	Client	24.03
	PM ₁₀₋₁	4189733021	7/04/2018	19	9518592	9/04/2018	11:44	Client	24.02
	PM ₁₀₋₁	4189733024	13/04/2018	18	9520681	17/04/2018	14:56	Client	24.04

	PM ₁₀₋₁	4189733027	19/04/2018	7	9520684	23/04/2018	14:43	Client	24.01
	PM ₁₀₋₁	4189733030	25/04/2018	12	9520687	27/04/2018	12:47	Client	24.02
May-18	PM ₁₀₋₁	5189733012	1/05/2018	1	9520690	3/05/2018	8:42	Client	23.98
	PM ₁₀₋₁	5189733015	7/05/2018	9	9520693	10/05/2018	8:16	Client	24.38
	PM ₁₀₋₁	5189733018	13/05/2018	1	9520696	18/05/2018	9:39	Client	24.01
	PM ₁₀₋₁	5189733021	19/05/2018	9	9520699	24/05/2018	7:11	Client	24.03
	PM ₁₀₋₁	5189733024	25/05/2018	14	9518002	28/05/2018	10:31	Client	24.00
	PM ₁₀₋₁	5189733027	31/05/2018	6	9518005	1/06/2018	8:13	Client	24.01
Jun-18	PM ₁₀₋₁	6189733018	6/06/2018	4	9518008	7/06/2018	13:17	Client	24.03
	PM ₁₀₋₁	6189733021	12/06/2018	6	9518011	13/06/2018	11:37	Client	24.02
	PM ₁₀₋₁	6189733024	18/06/2018	2	95181014	19/06/2018	9:04	Client	24.01
	PM ₁₀₋₁	6189733027	24/06/2018	8	9518017	26/06/2018	9:35	Client	24.03
	PM ₁₀₋₁	6189733030	30/06/2018	4	9518020	3/07/2018	11:35	Client	24.53
Jul-18	PM ₁₀₋₁	7189733018	6/07/2018	7	9518023	10/07/2018	12:24	Client	24.06
	PM ₁₀₋₁	7189733021	12/07/2018	5	9519658	16/07/2018	10:03	Client	24.02
	PM ₁₀₋₁	7189733024	18/07/2018	18	9519661	20/07/2018	11:23	Client	24.01
	PM ₁₀₋₁	7189733027	24/07/2018	9	9519664	28/07/2018	10:20	Client	24.03
	PM ₁₀₋₁	7189733030	30/07/2018	4	9521251	2/08/2018	13:33	Client	24.01
Aug-18	PM ₁₀₋₁	8189733012	5/08/2018	16	9521254	9/08/2018	9:57	Client	24.02
	PM ₁₀₋₁	8189733015	11/08/2018	12	9521257	16/08/2018	7:20	Client	24.00
	PM ₁₀₋₁	8189733018	17/08/2018	8	9521260	21/08/2018	14:42	Client	24.01
	PM ₁₀₋₁	8189733021	23/08/2018	11	9521263	28/08/2018	9:58	Client	24.03
	PM ₁₀₋₁	8189733024	29/08/2018	6	9521266	30/08/2018	9:03	Client	24.01
Sep-18	PM ₁₀₋₁	9189733012	4/09/2018	4	9521269	5/09/2018	10:48	Client	24.55
	PM ₁₀₋₁	9189733015	10/09/2018	3	9521272	12/09/2018	14:15	Client	24.01
	PM ₁₀₋₁	9189733018	16/09/2018	12	9519779	18/09/2018	11:45	Client	24.03
	PM ₁₀₋₁	9189733021	22/09/2018	7	9519782	27/09/2018	10:25	Client	24.01
	PM ₁₀₋₁	9189733024	28/09/2018	6	9519785	3/10/2018	10:35	Client	24.01
Oct-18	PM ₁₀₋₁	10189733012	4/10/2018	13	9519788	8/10/2018	11:25	Client	24.02
	PM ₁₀₋₁	10189733015	10/10/2018	3	9519791	12/10/2018	9:44	Client	24.02
	PM ₁₀₋₁	10189733018	16/10/2018	2	9519794	18/10/2018	12:31	Client	24.02
	PM ₁₀₋₁	10189733021	22/10/2018	9	9519797	26/10/2018	12:05	Client	24.01
	PM ₁₀₋₁	10189733024	28/10/2018	10	9519800	1/11/2018	14:29	Client	24.32
Nov-18	PM ₁₀₋₁	11189733012	3/11/2018	18	9584903	8/11/2018	10:55	Client	24.01
	PM ₁₀₋₁	11189733015	9/11/2018	6	9584906	14/11/2018	12:34	Client	24.03
	PM ₁₀₋₁	11189733018	15/11/2018	10	9314059	20/11/2018	7:56	Client	24.01

	PM ₁₀₋₁	11189733021	21/11/2018	24	9584965	26/11/2018	7:34	Client	24.02
	PM ₁₀₋₁	11189733024	27/11/2018	11	9584968	29/11/2018	10:37	Client	24.02
Dec-18	PM ₁₀₋₁	12189733012	3/12/2018	20	9584971	5/12/2018	12:17	Client	24.01
	PM ₁₀₋₁	12189733015	9/12/2018	14	9584974	13/12/2018	10:32	Client	24.02
	PM ₁₀₋₁	12189733018	15/12/2018	44	9584977	19/12/2018	11:05	Client	15.58
	PM ₁₀₋₁	12189733021	21/12/2018	12	9584980	24/12/2018	11:53	Client	20.23
	PM ₁₀₋₁	12189733024	27/12/2018	13	9584983	28/12/2018	10:26	Client	24.01

4.3.5.3 HVAS Unit 2 (PM10-2)

Table 17: HVAS Unit 2 Results

		Sample #	Run Date	PM10	Filter #	Date Off	Time Off	Tech	Hrs
Jan-18	PM ₁₀₋₂	1189733019	1/01/2018	15	9518280	3/01/2017	8:32	Client	24.03
	PM ₁₀₋₂	1189733022	7/01/2018	15	9518283	10/01/2018	11:17	Client	24.36
	PM ₁₀₋₂	1189733025	13/01/2018	2	9518284	15/01/2018	8:43	Client	24.03
	PM ₁₀₋₂	1189733028	19/01/2018	16	9518289	23/01/2018	12:24	Client	24.04
	PM ₁₀₋₂	1189733031	25/01/2018	23	9518292	30/01/2018	10:14	Client	24.02
	PM ₁₀₋₂	1189733034	31/01/2018	15	9520058	5/02/2018	13:05	Client	24.05
Feb-18	PM ₁₀₋₂	2189733019	6/02/2018	12	9520059	9/02/2018	8:10	Client	24.03
	PM ₁₀₋₂	2189733022	12/02/2018	17	9520064	14/02/2018	9:33	Client	24.05
	PM ₁₀₋₂	2189733025	18/02/2018	24	9520065	23/02/2018	9:58	Client	24.04
	PM ₁₀₋₂	2189733028	24/02/2018	6	9520070	27/02/2018	11:12	Client	24.05
Mar-18	PM ₁₀₋₂	3189733019	2/03/2018	15	9520071	5/03/2018	11:22	Client	23.95
	PM ₁₀₋₂	3189733022	8/03/2018	5	9518578	13/03/2018	11:44	Client	24.06
	PM ₁₀₋₂	3189733025	14/03/2018	9	9518579	16/03/2018	10:15	Client	24.02
	PM ₁₀₋₂	3189733028	20/03/2018	40	9518584	22/03/2018	12:09	Client	24.07
	PM ₁₀₋₂	3189733031	26/03/2018	10	9518585	29/03/2018	8:38	Client	24.01
Apr-18	PM ₁₀₋₂	4189733019	1/04/2018	12	9518590	5/04/2018	13:05	Client	24.05
	PM ₁₀₋₂	4189733022	7/04/2018	14	9518591	9/04/2018	11:59	Client	24.02
	PM ₁₀₋₂	4189733025	13/04/2018	19	9520682	17/04/2018	14:35	Client	24.04
	PM ₁₀₋₂	4189733028	19/04/2018	6	9520683	23/04/2018	14:56	Client	24.02
	PM ₁₀₋₂	4189733031	25/04/2018	8	9520688	27/04/2018	12:37	Client	24.07
May-18	PM ₁₀₋₂	5189733013	1/05/2018	3	9520689	3/05/2018	8:55	Client	23.65
	PM ₁₀₋₂	5189733016	7/05/2018	6	9520694	10/05/2018	8:24	Client	24.54
	PM ₁₀₋₂	5189733019	13/05/2018	5	9520697	18/05/2018	9:49	Client	24.00
	PM ₁₀₋₂	5189733022	19/05/2018	8	9520700	24/05/2018	7:23	Client	24.08
	PM ₁₀₋₂	5189733025	25/05/2018	11	9518003	28/05/2018	10:50	Client	24.00
	PM ₁₀₋₂	5189733028	31/05/2018	4	9518006	1/06/2018	8:27	Client	24.04

Jun-18	PM ₁₀₋₂	6189733019	6/06/2018	3	9518009	7/06/2018	13:04	Client	24.04
	PM ₁₀₋₂	6189733022	12/06/2018	7	9518010	13/06/2018	11:25	Client	24.03
	PM ₁₀₋₂	6189733025	18/06/2018	3	9518013	19/06/2018	9:25	Client	24.03
	PM ₁₀₋₂	6189733028	24/06/2018	7	9518018	26/06/2018	9:13	Client	24.03
	PM ₁₀₋₂	6189733031	30/06/2018	5	9518021	3/07/2018	11:19	Client	24.40
Jul-18	PM ₁₀₋₂	7189733019	6/07/2018	6	9518022	10/07/2018	12:39	Client	24.03
	PM ₁₀₋₂	7189733022	12/07/2018	8	9519659	16/07/2018	10:13	Client	24.04
	PM ₁₀₋₂	7189733025	18/07/2018	20	9519662	20/07/2018	11:34	Client	23.05
	PM ₁₀₋₂	7189733028	24/07/2018	10	9519665	28/07/2018	10:29	Client	23.05
	PM ₁₀₋₂	7189733031	30/07/2018	4	9521252	2/08/2018	13:03	Client	23.20
Aug-18	PM ₁₀₋₂	8189733013	5/08/2018	19	9521255	9/08/2018	9:35	Client	23.83
	PM ₁₀₋₂	8189733016	11/08/2018	14	9521258	16/08/2018	7:35	Client	24.02
	PM ₁₀₋₂	8189733019	17/08/2018	10	9521261	21/08/2018	14:56	Client	24.02
	PM ₁₀₋₂	8189733022	23/08/2018	10	9521264	28/08/2018	9:42	Client	24.06
	PM ₁₀₋₂	8189733025	29/08/2018	8	9521265	30/08/2018	9:18	Client	24.02
Sep-18	PM ₁₀₋₂	9189733013	4/09/2018	3	9521270	5/09/2018	10:36	Client	24.52
	PM ₁₀₋₂	9189733016	10/09/2018	3	9521271	12/09/2018	14:24	Client	24.02
	PM ₁₀₋₂	9189733019	16/09/2018	12	9519780	18/09/2018	11:31	Client	24.05
	PM ₁₀₋₂	9189733022	22/09/2018	8	9519781	27/09/2018	10:38	Client	24.02
	PM ₁₀₋₂	9189733025	28/09/2018	6	9519786	3/10/2018	11:02	Client	24.04
Oct-18	PM ₁₀₋₂	10189733013	4/10/2018	14	9519789	8/10/2018	11:13	Client	24.04
	PM ₁₀₋₂	10189733016	10/10/2018	5	9519790	12/10/2018	10:06	Client	24.02
	PM ₁₀₋₂	10189733019	16/10/2018	3	9519795	18/10/2018	11:59	Client	24.08
	PM ₁₀₋₂	10189733022	22/10/2018	8	9519796	26/10/2018	12:21	Client	24.01
	PM ₁₀₋₂	10189733025	28/10/2018	13	9584901	1/11/2018	13:30	Client	24.61
Nov-18	PM ₁₀₋₂	11189733013	3/11/2018	18	9584904	8/11/2018	11:11	Client	24.37
	PM ₁₀₋₂	11189733016	9/11/2018	6	9314058	14/11/2018	12:20	Client	24.01
	PM ₁₀₋₂	11189733019	15/11/2018	11	9584963	20/11/2018	8:14	Client	24.05
	PM ₁₀₋₂	11189733022	21/11/2018	23	9584966	26/11/2018	7:45	Client	24.03
	PM ₁₀₋₂	11189733025	27/11/2018	12	9584969	29/11/2018	10:18	Client	24.02
Dec-18	PM ₁₀₋₂	12189733013	3/12/2018	20	9584970	5/12/2018	12:33	Client	24.02
	PM ₁₀₋₂	12189733016	9/12/2018	13	9584975	13/12/2018	10:20	Client	24.05
	PM ₁₀₋₂	12189733019	15/12/2018	48	9584976	19/12/2018	11:15	Client	15.58
	PM ₁₀₋₂	12189733022	21/12/2018	12	9584981	24/12/2018	12:02	Client	20.26
	PM ₁₀₋₂	12189733025	27/12/2018	11	9584984	28/12/2018	10:42	Client	24.03

4.3.5.4 TSP Unit 1

Table 18: TSP Unit 1 Results

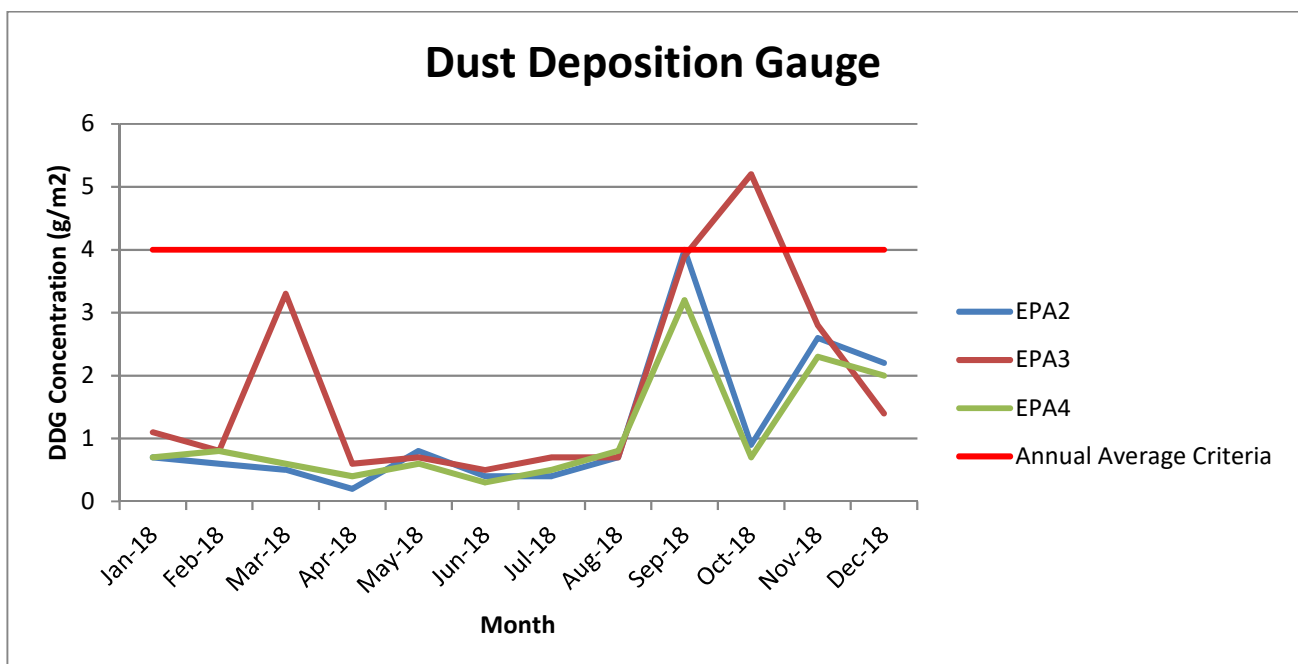
		Sample #	Run Date	PM10	Filter #	Date Off	Time Off	Tech	Hrs
Jan-18	TSP	1189733017	1/01/2018	21	9518278	3/01/2018	8:07	Client	24.01
	TSP	1189733020	7/01/2018	36	9518281	10/01/2018	11:36	Client	24.40
	TSP	1189733023	13/01/2018	40	9518286	15/01/2018	8:25	Client	24.04
	TSP	1189733026	19/01/2018	36	9518287	23/01/2018	11:32	Client	24.03
	TSP	1189733029	25/01/2018	28	9518290	30/01/2018	9:54	Client	24.03
	TSP	1189733032	31/01/2018	29	9518293	5/02/2018	13:30	Client	24.05
Feb-18	TSP	2189733017	6/02/2018	25	9520061	9/02/2018	7:53	Client	24.03
	TSP	2189733020	12/02/2018	48	9520062	14/02/2018	9:50	Client	24.05
	TSP	2189733023	18/02/2018	59	9520067	23/02/2018	9:39	Client	24.02
	TSP	2189733026	24/02/2018	15	9520068	27/02/2018	11:42	Client	24.04
Mar-18	TSP	3189733017	2/03/2018	27	9518575	5/03/2018	11:01	Client	23.95
	TSP	3189733020	8/03/2018	8	9518576	13/03/2018	12:00	Client	24.02
	TSP	3189733023	14/03/2018	21	9518581	16/03/2018	9:54	Client	24.03
	TSP	3189733026	20/03/2018	75	9518582	22/03/2018	12:43	Client	24.03
	TSP	3189733029	26/03/2018	18	9518587	29/03/2018	8:18	Client	24.02
Apr-18	TSP	4189733017	1/04/2018	21	9518588	5/04/2018	13:21	Client	24.04
	TSP	4189733020	7/04/2018	21	9518593	9/04/2018	11:39	Client	24.02
	TSP	4189733023	13/04/2018	39	9518594	17/04/2018	14:59	Client	24.05
	TSP	4189733026	19/04/2018	17	9520685	23/04/2018	14:38	Client	24.01
	TSP	4189733029	25/04/2018	14	9520686	27/04/2018	12:52	Client	24.03
May-18	TSP	5189733011	1/05/2018	10	9520691	3/05/2018	8:37	Client	23.99
	TSP	5189733014	7/05/2018	23	9520692	10/05/2018	8:11	Client	24.27
	TSP	5189733017	13/05/2018	25	9520695	18/05/2018	9:35	Client	23.97
	TSP	5189733020	19/05/2018	19	9520698	24/05/2018	7:05	Client	24.03
	TSP	5189733023	25/05/2018	27	9518001	28/05/2018	10:26	Client	24.00
	TSP	5189733026	31/05/2018	9	9518004	1/06/2018	8:06	Client	24.03
Jun-18	TSP	6189733017	6/06/2018	6	9518007	7/06/2018	13:20	Client	24.04
	TSP	6189733020	12/06/2018	12	9518012	13/06/2018	11:40	Client	24.03
	TSP	6189733023	18/06/2018	6	9518015	19/06/2018	8:57	Client	24.03
	TSP	6189733026	24/06/2018	13	9518016	26/06/2018	9:27	Client	24.03
	TSP	6189733029	30/06/2018	7	9518019	3/07/2018	11:47	Client	24.42
Jul-18	TSP	7189733017	6/07/2018	18	9518024	10/07/2018	12:19	Client	24.01
	TSP	7189733020	12/07/2018	15	9519657	16/07/2018	9:59	Client	24.03
	TSP	7189733023	18/07/2018	36	9519660	20/07/2018	11:16	Client	24.02
	TSP	7189733026	24/07/2018	25	9519663	28/07/2018	10:14	Client	24.02
	TSP	7189733029	30/07/2018	9	9521250	2/08/2018	13:38	Client	24.03
Aug-18	TSP	8189733011	5/08/2018	27	9521253	9/08/2018	9:55	Client	24.03
	TSP	8189733014	11/08/2018	26	9521256	16/08/2018	7:13	Client	24.01
	TSP	8189733017	17/08/2018	20	9521259	21/08/2018	14:37	Client	24.02
	TSP	8189733020	23/08/2018	25	9521262	28/08/2018	10:01	Client	24.04
	TSP	8189733023	29/08/2018	11	9521267	30/08/2018	8:58	Client	24.02

Sep-18	TSP	9189733011	4/09/2018	5	9521268	5/09/2018	10:51	Client	24.44
	TSP	9189733014	10/09/2018	7	9521273	12/09/2018	14:08	Client	24.02
	TSP	9189733017	16/09/2018	31	9521274	18/09/2018	11:48	Client	24.03
	TSP	9189733020	22/09/2018	18	9519783	27/09/2018	10:18	Client	24.02
	TSP	9189733023	28/09/2018	17	9519784	3/10/2018	10:30	Client	24.02
Oct-18	TSP	10189733011	4/10/2018	27	9519787	8/10/2018	11:27	Client	24.04
	TSP	10189733014	10/10/2018	10	9519792	12/10/2018	9:38	Client	24.02
	TSP	10189733017	16/10/2018	7	9519793	18/10/2018	12:34	Client	24.04
	TSP	10189733020	22/10/2018	16	9519798	26/10/2018	11:00	Client	24
	TSP	10189733023	28/10/2018	24	9519799	1/11/2018	13:21	Client	24.46
Nov-18	TSP	11189733011	3/11/2018	41	9584902	8/11/2018	9:45	Client	24.03
	TSP	11189733014	9/11/2018	13	9584905	14/11/2018	12:36	Client	24.04
	TSP	11189733017	15/11/2018	25	9584962	20/11/2018	7:51	Client	24.02
	TSP	11189733020	21/11/2018	38	9584964	26/11/2018	7:30	Client	24.04
	TSP	11189733023	27/11/2018	30	9584967	29/11/2018	10:39	Client	24
Dec-18	TSP	12189733011	3/12/2018	44	9584972	5/12/2018	12:11	Client	24.02
	TSP	12189733014	9/12/2018	29	9584973	13/12/2018	10:34	Client	24.05
	TSP	12189733017	15/12/2018	90	9584978	19/12/2018	10:59	Client	15.55
	TSP	12189733020	21/12/2018	38	9584979	24/12/2018	11:46	Client	20.27
	TSP	12189733023	27/12/2018	28	9584982	28/12/2018	10:20	Client	24.03

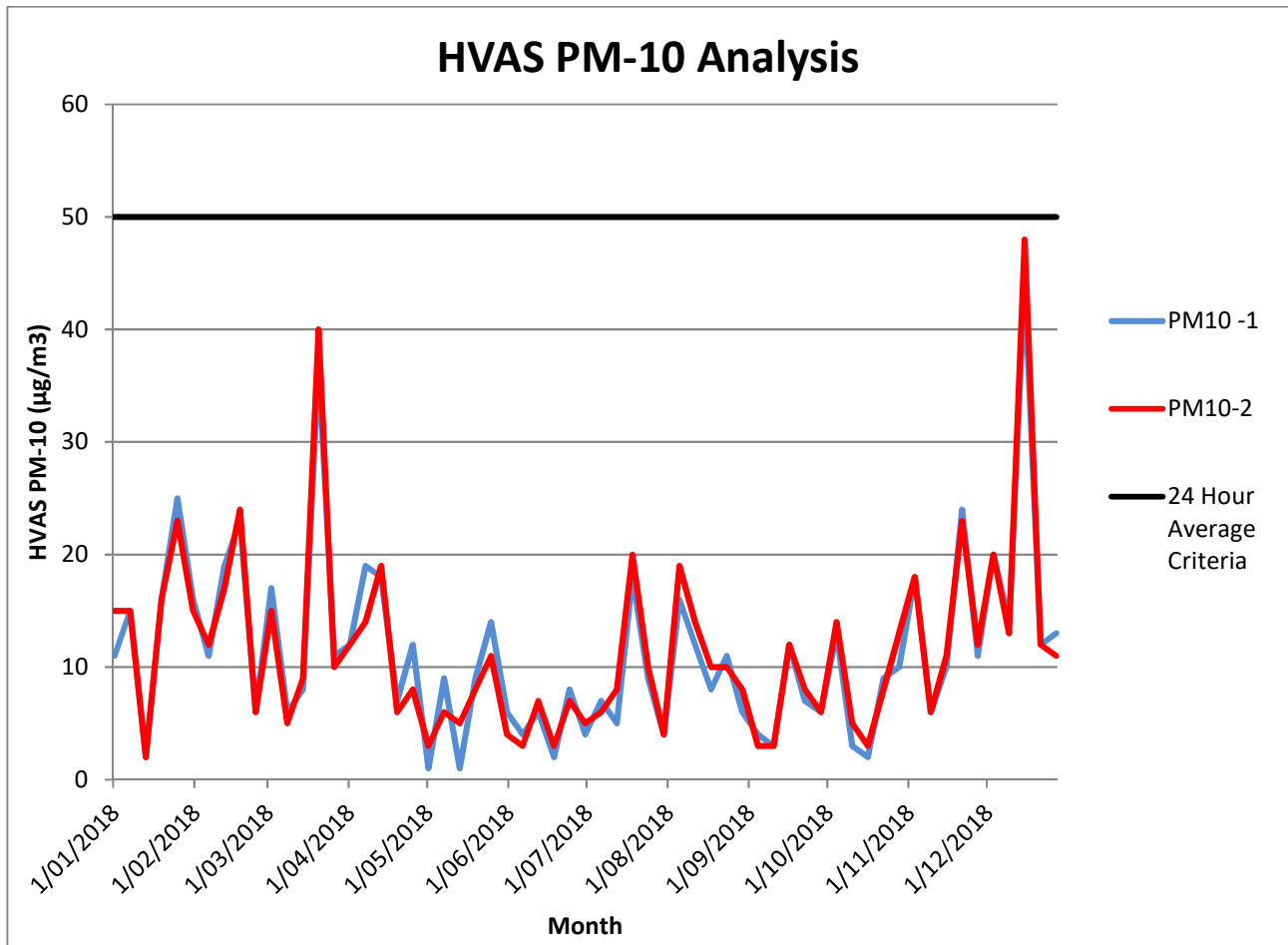
4.3.6 Analysis of Results

Please refer to sections 4.3.6.1 to 4.3.6.3 for a breakdown of the air quality monitoring data.

4.3.6.1 Depositional Dust Gauges



4.3.6.2 HVAS PM-10 Unit 1 and 2

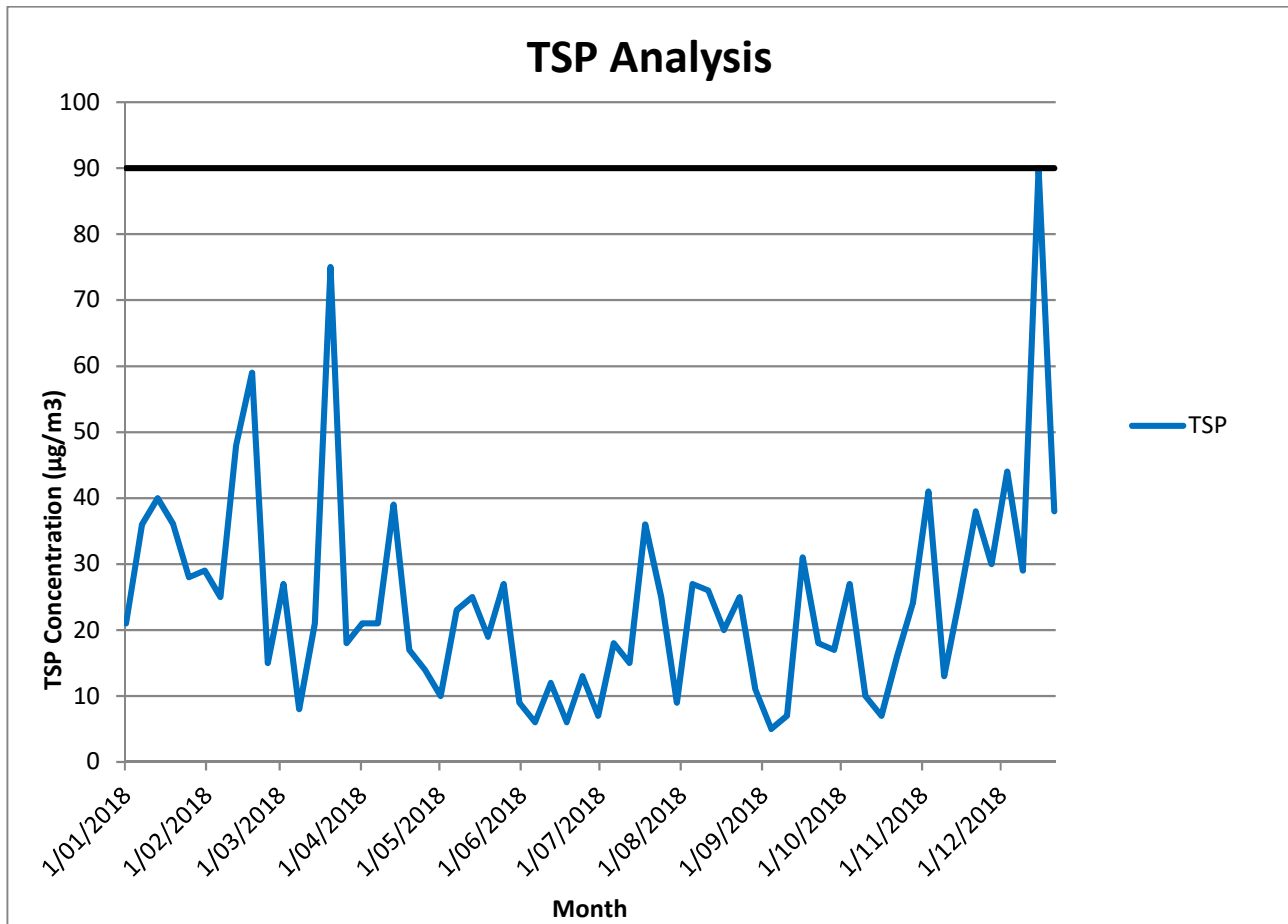


*The HVAS PM10 Annual average of 30µg/m³ is based on the short term impact assessment criterion for particulate matter. The 24hr average is the long term impact assessment criteria for deposited dust. Clause 15 (10) of approval.

Table 19: PM10 annual average results

Unit	Ardglen HVAS Annual Average	Annual Average Criterion (Short Term)	Annual Average Criterion (Long Term)
PM10-1	11.3	30	50
PM10-2	11.5	30	50

4.3.6.3 TSP Unit 1



4.3.7 Discussion

Commentary on the various air monitoring data is below:

DDG

All DDG's were complaint based on the annual average results achieved during the reporting period.

Although all of the annual average results were complaint, there was one individual result obtained that was greater than 4.0 g/m² per month. The result associated with October 2018 was 5.2 g/m² per month which initiated an investigation by Daracon to ascertain the likely cause of the elevated result. The investigation revealed the following information:

- Although the wind direction varied during the course of sampling period, the predominant wind direction was from the south east which demonstrates to us that the likely source of the dust was not exclusively associated with Ardglen Quarry;
- The DDG result of **5.2 g/m²/month** included **3.8 g/m²/month** of combustible material which demonstrates a substantial quantity of contamination from material other than airborne dust;
- Additionally, the rolling Annual average for DDG 2 (EPA#3) was **1.8 g/m²/month** including the result associated with this period;

For the reasons mentioned above and with no further exceedances obtained, the investigation was closed and this information was communicated to the DPE promptly.

HVAS (PM10 and TSP)

All HVAS's were compliant based on the individual and annual average results achieved during the reporting period.

It is worth noting that although all of the results obtained were compliant, there were a number of slightly elevated results which could be caused by many things, such as:

- Severe drought conditions experienced throughout the region;
- Regional dust storms that have been known to pass through the region intermittently;

4.3.8 Conclusion

Although there was one elevated DDG result obtained, the quarry was compliant with the air quality criteria throughout the reporting period.

4.4 Flora and Fauna Habitat**4.4.1 Introduction**

As part of the current consent, the three off-set areas have been established as described in the off-set strategy. Please refer to Section 2.12 for further details of this ongoing process.

From a fauna perspective, nesting boxes were installed in April 2012 on Lot 187 DP 751028 as identified in the sites Landscape Management Plan. It is a requirement of the plan that annual springtime inspections of the nesting boxes are conducted for the life of the quarry.

4.4.2 Fauna Management

Appropriate feral animal control is an important aspect of the correct management of the site. Feral animal control is therefore ongoing and completed on the site (including offset areas) as required.

4.4.3 Nest Box Usage

The report associated with the annual springtime inspections of the nesting boxes is attached in Appendix 6.

5. COMPLIANCE ASSESSMENT**5.1 Environmental Protection Licence**

Daracon hold Environmental protection Licence 1115 for a 'land based' extractive industry. The licence has an anniversary date of 1 January. The annual return covering the reporting period identified no non-compliances with the conditions of the licence and was submitted to the EPA in February 2019. The current version of the Ardglan Quarry Environment Protection Licence (EPL 1115) is available on site.

5.2 Discrepancies With Predicted And Actual Quarry Operations

The previous AEMR included a list of various activities planned for the following reporting period. With regard to the actual activities undertaken on site during the reporting period, the discrepancies between those predicted and those undertaken are summarised below:

- The export of material from site to the Scone Bypass Project (SBP) commenced during the reporting period which was not anticipated previously. This occurred as a result of Daracon Contractors (civil construction division) being awarded the contract to construct the SBP by the RMS. Numerous alternatives were considered for the supply of construction materials to the SBP with multiple quarries ultimately being nominated including Ardglan;
- Completion of the Independent Environmental Audit was not nominated in the previous AEMR however it was completed during the reporting period with further information included in Section 5.3;

5.3 Independent Audit

During the reporting period, Daracon engaged the services of an environmental auditor to undertake the Independent Environmental Audit (IEA) in accordance with the Project Approval MP 06_0624 MOD. A copy of the IEA report and Response to Audit Recommendations is included in Appendix 8 which includes a summary of the various actions as well as the status of each.

5.4 Summary of Incidents and Non-Compliances

Table 20 includes a summary of the incidents raised by Daracon during the reporting period. Please also refer to **Appendix 4** for a summary of complaints received and **Table 3** for a summary of the non-compliances arising from the IEA undertaken by Pitt and Sherry.

Table 20: Summary of incidents raised

Date occurred	Description	Outcome / action	Closed (Y / N)
October 2018	DDG result above 4.0 g/m2 per month	Matter investigated and found to be a results of no-quarrying activities. Annual average remained compliant	Y
15/12/18	HVAS did not operate for 24 hours plus or minus 1 hour	Matter investigated and the cause of the non-compliance was a local power outage as a result of a severe storm	Y
21/12/18	HVAS did not operate for 24 hours plus or minus 1 hour	Matter investigated and the cause of the non-compliance was a local power outage as a result of a severe storm	Y

6. ACTIVITIES PROPOSED DURING THE NEXT REPORTING PERIOD

6.1 Introduction

The following section provides a brief summary of operational & non-operational activities planned throughout the 2019 reporting period. **Table 17** provides a summary of the proposed quarry activities.

Table 21: Proposed Activities for 2019

January - December 2019	<ul style="list-style-type: none">• Ongoing review of Management Plans;• Noise monitoring;• Regular Site Inspections;• Ongoing Air Quality Monitoring;• Addressing corrective actions identified in Independent Environmental Audit (IEA) as required;• Addressing corrective actions identified in the Road Safety Audit (RSA);• Export of material from the quarry to the Scone Bypass Project (no overburden removal, blasting or crushing required);• Progressing the modification to the Consent and subject to its approval, quarrying activities (overburden removal, blasting and crushing) may recommence;
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6.2 Extraction Operations

Subject to the approval of the consent modification, extraction operations may be undertaken during the next reporting period.

6.3 Processing

Subject to the approval of the consent modification, processing may be undertaken during the next reporting period.

6.4 Overburden And Silt Management

Subject to the approval of the consent modification, overburden removal may be undertaken during the next reporting period. Current controls for overburden and silt management will remain in place and be monitored.

6.5 Waste Management

Subject to the approval of the consent modification, additional waste management processes may be implemented during the next reporting period.

6.6 Site Infrastructure And Services

Subject to the approval of the consent modification, changes may occur to the site infrastructure and services during the next reporting period.

6.7 Water Management

Subject to the approval of the consent modification, changes may be made to the current water management practices during the next reporting period.

6.8 Bushfire Management

Bush fire management practices will remain in place and monitored.

6.9 Hazardous Materials Management

There will be no importation or disposing of hazardous materials on site. Subject to the approval of the consent modification, changes may be made to the management practices associated with hazardous materials during the next reporting period.

6.10 Product Transportation

The quarry will continue to supply the SBP with construction materials well into 2019. Further export of material may also occur beyond this time.

6.11 Rehabilitation and landscape management

During the next reporting period it is likely that the following rehabilitation and landscape management activities will occur:

- Revise the Landscape Management Plan (LMP) with assistance from Umwelt and submit to the DPE for review and approval by the 24th May 2019;
- Identification of appropriate areas for rehabilitation to occur on site and commence where available;
- Monitoring of Off-Set areas will be conducted on a regular basis;
- Long term security of the off-set areas to be resolved;
- Subject to the approval of the consent modification, implement the various management strategies as detailed in the consent and revised LMP prior to entering the extension area;

7. REFERENCES

1. ANZECC (2000) – Australian and New Zealand Guidelines Fresh and Marine Water Quality
2. DEC (2007) Approved Methods for Sampling of Air Pollutants in New South Wales
3. DECCW (2007) Methods for the Sampling and Analysis of Air Pollutants in New South Wales
4. EPA (2000) New South Wales Industrial Noise Policy

8. APPENDICES

Appendix 1 Project Approval MP 06_0264 (Mod 1)

Project Approval

Section 75J of the *Environmental Planning and Assessment Act 1979*

I approve the application referred to in schedule 1, subject to the conditions in schedules 2 to 5.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.

The Hon Kristina Keneally MP
Minister for Planning

Sydney

2008

SCHEDULE 1

Application Number:

06_0264

Proponent:

Buttai Gravel Pty Limited (Daracon Quarries)

Approval Authority:

Minister for Planning

Land:

Lot 1 DP 1001734
Lot 218 DP 751028
[Various Crown public roads](#)

Project:

Ardglen Quarry Extension

[Blue type represents December 2010 modification \(MOD 1\)](#)

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DEFINITIONS

AEMR	Annual Environmental Management Report
BCA	Building Code of Australia
CCC	Community Consultative Committee
Council	Liverpool Plains Shire Council
Day	The period from 7.00am to 6.00pm on Monday to Saturday, and 8.00am to 6.00pm on Sundays and Public Holidays
DECCW	Department of Environment, Climate Change and Water
Department	Department of Planning
Director-General	Director-General of Department of Planning, or delegate
DWE	Department of Water and Energy
EA	Environmental assessment titled <i>Ardglen Quarry Extension Environmental Assessment</i> , dated June 2007, including the response to submissions, dated November 2007
EEC	Endangered Ecological Community as defined under the NSW <i>Threatened Species Conservation Act 1995</i>
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence
Evening	The period from 6.00pm to 10.00pm
Extension Area	The Extension Area as shown in Appendix 1
I&I NSW	NSW Department of Industry and Investment
Land	Land means the whole of a lot, or contiguous lots owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this approval
Minister	Minister for Planning, or delegate
Night	The period from 10.00pm to 7.00am on Monday to Saturday, and 10.00pm to 8.00am on Sundays and Public Holidays
NOW	NSW Office of Water within DECCW
Privately-owned Land	Land that is not owned by a public agency, or a quarrying company (or its subsidiary)
Project	The development as described in the EA
Proponent	Buttai Gravel Pty Limited (Daracon Quarries), or its successors
Reasonable and Feasible	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements. Feasible relates to engineering considerations and what is practical to build
RTA	Roads and Traffic Authority
Site	The land referred to in Schedule 1 and shown in Appendix 1 as the project application area
Statement of Commitments	The Proponent's commitments in Appendix 4

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

Obligation to Minimise Harm to the Environment

1. The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.

Terms of Approval

2. The Proponent shall carry out the project generally in accordance with the:
 - (a) EA;
 - (b) statement of commitments; and
 - (c) conditions of this approval.

Note: The general layout of the project is shown in Appendix 1.

3. If there is any inconsistency between the above documents, the conditions of this consent shall prevail to the extent of any inconsistency.
4. The Proponent shall comply with any reasonable and feasible requirement/s of the Director-General arising from the Department's assessment of:
 - (a) any reports, plans, programs, strategies or correspondence that are submitted in accordance with this approval; and
 - (b) the implementation of any actions or measures contained in these reports, plans, programs, strategies or correspondence.

Limits on Approval

5. This approval expires on 31 August 2038.

Note: Under this approval, the Proponent is required to rehabilitate the site and implement biodiversity offsets to the satisfaction of the Director-General. Consequently, this approval will continue to apply in all other respects other than the right to conduct extractive operations until the site has been rehabilitated and the biodiversity offset provided to a satisfactory standard.

6. The Proponent shall not extract or process more than 500,000 tonnes of material on the site each year.
7. The Proponent shall not transport more than:
 - (a) 250,000 tonnes of product from the site by rail a year; or
 - (b) 250,000 tonnes of product from the site by road a year.
8. The Proponent shall not import more than 80,000 tonnes of materials for the purposes of blending and product quality improvement each year.

Surrender of Consents

9. Within 3 years of this approval, the Proponent shall surrender all development consents or continuing use rights for the Ardglen Quarry, to the satisfaction of the Director-General.

Management Plans/Monitoring Programs

10. With the approval of the Director-General, the Proponent may submit any management plan or monitoring program required by this approval on a progressive basis.

Structural Adequacy

11. The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.

Notes:

- Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.
- Part 8 of the EP&A Regulation sets out the requirements for the certification of development.

Demolition

12. The Proponent shall ensure that all demolition work is carried out in accordance with *Australian Standard AS 2601-2001: The Demolition of Structures*, or its latest version.

Operation of Plant and Equipment

13. The Proponent shall ensure that all plant and equipment used at the site is:
 - (a) maintained in a proper and efficient condition; and
 - (b) operated in a proper and efficient manner.

Protection of Public Infrastructure

14. The Proponent shall:
 - (a) repair, or pay all reasonable costs associated with repairing any public infrastructure that is damaged by the project; and
 - (b) relocate, or pay all reasonable costs associated with relocating any public infrastructure that needs to be relocated as a result of the project.

Revision of Strategies, Plans or Programs

15. Within 3 months of any modification to this approval, the Proponent shall review and if necessary revise all management and monitoring strategies, plans and programs required under this approval which are relevant to the modification to the satisfaction of the Director-General.
-

SCHEDULE 3 SPECIFIC ENVIRONMENTAL CONDITIONS

HOURS OF OPERATION

- The Proponent shall comply with the hours of operation in Table 1.

Table 1: Hours of Operation

Activity	Day	Time
Topsoil/overburden removal/emplacement	Monday-Saturday	7.00am to 5.00pm
	Sunday	None
Blasting	Monday-Friday	10:00pm to 3.00pm
	Saturdays, Sundays and Public Holidays	None
In-pit activities (including drilling, extraction, and transfer of material out of the pit)	Monday-Saturday	7.00am to 5:30pm
	Sundays and Public Holidays	None
Out-of-pit activities (including processing, and stockpiling)	Monday-Saturday	7.00am to 5:30pm
	Sundays and Public Holidays	None
Maintenance (if inaudible at nearby residences)	Monday-Sunday	Any time
Truck loading and distribution	Monday-Saturday	6.30am to 5.30pm
	Sundays and Public Holidays	None
Rail loading	Monday-Sunday	7:00am to 10:00pm

Note:

- The Proponent may load no more than 2 trains each year outside the hours listed in Table 1 (see condition 41).
- The Proponent may carry out blasting operations outside the hours listed in Table 1 for safety reasons provided the Proponent has notified [DECCW](#) and the local community about the proposed blast.

NOISE

Noise Impact Assessment Criteria

- The Proponent shall ensure that the noise generated by the project does not exceed the noise impact assessment criteria in Table 2 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.

Table 2: Noise impact assessment criteria dB(A)

Land	Day	Evening	Night	
	$L_{Aeq}(15 \text{ min})$	$L_{Aeq}(15 \text{ min})$	$L_{Aeq}(15 \text{ min})$	$L_{A1}(1 \text{ min})$
1 – Burraston	35	35	35	45
3 – Rose	35	35	35	45
4 – CM Thompson	44	35	35	45
5 – M Taylor	45	35	35	45
6 – S Thompson	45	35	35	45
9 – Bates	37	35	35	45
10 – Avery	38	35	35	45
11 – Shipman	37	35	35	45
12 – Hall	36	35	35	45
13 – McGhie	35	35	35	45
14 – Purtell	36	35	35	45
15 – J Taylor	43	35	35	45

Land	Day	Evening	Night	
	$L_{Aeq(15\ min)}$	$L_{Aeq(15\ min)}$	$L_{Aeq(15\ min)}$	$L_{A1(1\ min)}$
16 - Bojba	40	35	35	45
All other privately-owned land	35	35	35	45

However, if the Proponent has a written negotiated noise agreement with any landowner of the land listed in Table 2, and a copy of this agreement has been forwarded to the Department and [DECCW](#), then the Proponent may exceed the noise limits in Table 2 in accordance with the negotiated noise agreement. The Proponent may also exceed the $L_{A1(1\ min)}$ and $L_{Aeq(15\ min)}$ noise impact assessment criteria during out of hours rail loading activities provided they are conducted in accordance with condition 41 below.

Notes:

- For information on the numbering and identification of properties used in this approval see Appendix 5.
- To determine compliance with the $L_{Aeq(15\ minute)}$ noise limits, noise from the project is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the project is impractical, the [DECCW](#) may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.
- To determine compliance with the $L_{A1(1\ minute)}$ noise limits, noise from the project is to be measured at 1 metre from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the project is impractical, the [DECCW](#) may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy).
- The noise emission limits identified in the above table apply under meteorological conditions of:
 - wind speeds of up to 3 m/s at 10 metres above ground level; or
 - temperature inversion conditions of up to 3°C/100m, and source to receiver gradient wind speeds of up to 2 m/s at 10 metres above ground level.

Land Acquisition Criteria

- If the noise generated by the project exceeds the criteria in Table 3 at any residence on privately-owned land or on more than 25 percent of any privately-owned land, the Proponent shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 7-9 of Schedule 4.

Table 3: Land acquisition criteria dB(A)

Land	Day	Evening	Night
	$L_{Aeq(15\ min)}$	$L_{Aeq(15\ min)}$	$L_{Aeq(15\ min)}$
1 – Burraston	40	40	40
3 – Rose	46	40	40
4 – CM Thompson	46	40	40
5 – M Taylor	46	40	40
6 – S Thompson	46	40	40
9 – Bates	46	40	40
10 – Avery	46	40	40
11 – Shipman	46	40	40
12 – Hall	46	40	40
13 – McGhie	40	40	40
14 – Purtell	46	40	40
15 – J Taylor	46	40	40
16 - Bojba	46	40	40
All other privately-owned land	40	40	40

However, if the Proponent has a written negotiated noise agreement with any landowner of the land listed in Table 3, and a copy of this agreement has been forwarded to the Department and [DECCW](#), then the Proponent may exceed the noise limits in Table 3 in accordance with the negotiated noise agreement. The Proponent may also exceed the land acquisition criteria during out of hours rail loading activities provided they are conducted in accordance with condition 41 below.

Note: Noise generated by the project is to be measured in accordance with the notes to Table 2.

Additional Noise Mitigation

4. Upon receiving a written request from the owner of any privately-owned residence where subsequent noise monitoring shows the noise generated by the project is greater than the relevant criteria in Table 4, the Proponent shall implement additional noise mitigation measures such as double glazing, insulation, and/or air conditioning at any residence on the land in consultation with the landowner.

Table 4: Additional Noise Mitigation Criteria dB(A)

Land	Day	Evening	Night
	<i>L_{Aeq(15 min)}</i>	<i>L_{Aeq(15 min)}</i>	<i>L_{Aeq(15 min)}</i>
1 – Burraston	38	38	38
3 – Rose	44	38	38
4 – CM Thompson	44	38	38
5 – M Taylor	44	38	38
6 – S Thompson	44	38	38
9 – Bates	44	38	38
10 – Avery	44	38	38
11 – Shipman	44	38	38
12 – Hall	44	38	38
13 – McGhie	38	38	38
14 – Purtell	44	38	38
15 – J Taylor	44	38	38
16 – Bojba	44	38	38
All other privately-owned land	38	38	38

Note: Noise generated by the project is to be measured in accordance with the notes to Table 2.

These additional mitigation measures must be reasonable and feasible.

If within 3 months of receiving this request from the landowner, the Proponent and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution.

Within 3 months of this approval, the Proponent shall notify all applicable landowners of their rights under this condition, to the satisfaction of the Director-General.

Continuous Improvement

5. The Proponent shall:
 - (a) implement all reasonable and feasible noise mitigation measures;
 - (b) investigate ways to reduce the noise generated by the project, including off-site road and rail noise and maximum noise levels which may result in sleep disturbance; and
 - (c) report on these investigations and the implementation and effectiveness of these measures in the AEMR,
 to the satisfaction of the Director-General.

Monitoring

6. Prior to [any works being undertaken in the Extension Area](#), the Proponent shall prepare and implement a Noise Monitoring Program for the project, in consultation with [DECCW](#), and to the satisfaction of the Director-General. The program must include:
 - (a) a combination of attended and unattended noise monitoring measures; and
 - (b) a noise monitoring protocol for evaluating compliance with the noise impact assessment and land acquisition criteria in this approval.

BLASTING AND VIBRATION

Airblast Overpressure Criteria

7. The Proponent shall ensure that the airblast overpressure level from blasting at the project does not exceed the criteria in Table 5 at any privately-owned residence.

Table 5: Airblast overpressure impact assessment criteria

Airblast overpressure level (dB(Lin Peak))	Allowable exceedance
115	5% of the total number of blasts over a period of 12 months
120	0%

Ground Vibration Impact Assessment Criteria

8. The Proponent shall ensure that the ground vibration level from blasting at the project does not exceed the criteria in Table 6 at any privately-owned residence.

Table 6: Ground vibration impact assessment criteria

Peak particle velocity (mm/s)	Allowable exceedance
5	5% of the total number of blasts over a period of 12 months
10	0%

Blasting Frequency

9. The Proponent shall not carry out more than 30 blasts a year, or more than 1 blast per day, without the written approval of the Director-General.

Operating Conditions

10. The Proponent shall implement best blasting practice to:
- (a) protect the safety of people, property, public infrastructure and livestock; and
 - (b) minimise the dust and fume emissions from blasting at the project, to the satisfaction of the Director-General.
11. The Proponent shall not undertake blasting within 500 metres of any privately-owned land or any land not owned by the Proponent, unless suitable arrangements have been made with the landowner and any tenants to minimise the risk of flyrock-related impact to the property to the satisfaction of the Director-General.

Public Notice

12. The Proponent shall:
- (a) notify the landowner/occupier of any residence within 1 kilometre of the quarry pit who registers an interest in being notified about the blasting schedule at the quarry;
 - (b) operate a Blasting Hotline, or alternate system agreed to by the Director-General, to enable the public to get up-to-date information on the blasting schedule at the quarry;
 - (c) keep local residents informed about this hotline (or any alternative notification protocols), to the satisfaction of the Director-General.

Property Investigations

13. If any landowner of privately-owned land within 1 kilometre of the site claims that buildings and/or structures on his/her land have been damaged as a result of blasting at the site, following commencement of operations within the extension area, then he/she may ask the Director-General in writing to investigate the claim.

If the Director-General is satisfied that an independent property investigation is warranted, the Proponent shall within 3 months of the Director-General's determination:

- (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to investigate the claim; and
- (b) give the landowner a copy of the property investigation report.

If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damages to the satisfaction of the Director-General.

If the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Director-General for resolution.

If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (see Appendix 6).

Blast Monitoring Program

14. Prior to carrying out any [blasting in the Extension Area](#), the Proponent shall prepare and implement a Blast Monitoring Program for the project, in consultation with the [DECCW](#), and to the satisfaction of the Director-General. This program must include a protocol for demonstrating compliance with the blasting criteria in this approval.

AIR QUALITY

Impact Assessment Criteria

15. The Proponent shall ensure that the dust emissions generated by the project do not cause additional exceedances of the air quality impact assessment criteria listed in Tables 8, 9 and 10 at any residence, on privately-owned land, or on more than 25 percent of any privately-owned land.

Table 8: Long term impact assessment criteria for particulate matter

Pollutant	Averaging period	Criterion
Total suspended particulate (TSP) matter	Annual	90 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	Annual	30 µg/m ³

Table 9: Short term impact assessment criterion for particulate matter

Pollutant	Averaging period	Criterion
Particulate matter < 10 µm (PM ₁₀)	24 hour	50 µg/m ³

Table 10: Long term impact assessment criteria for deposited dust

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
Deposited dust	Annual	2 g/m ² /month	4 g/m ² /month

Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.

Operating Conditions

16. The Proponent shall ensure any visible air pollution generated by the project is assessed regularly, and that quarrying operations are relocated, modified, and/or stopped as required to minimise air quality impacts on privately-owned land, to the satisfaction of the Director-General.

Monitoring

17. [The](#) Proponent shall prepare and implement an Air Quality Monitoring Program for the project, in consultation with [DECCW](#), and to the satisfaction of the Director-General. This program must:
 - (a) use a combination of high volume air samplers and dust deposition gauges to monitor the dust emissions from the project;
 - (b) include a protocol for demonstrating compliance with the air quality impact assessment criteria in this approval; [and](#)
 - (c) [be submitted to the Director-General for approval prior to any works being undertaken in the Extension Area.](#)

METEOROLOGICAL MONITORING

18. The Proponent shall ensure the project has a suitable meteorological station in the vicinity of the site that complies with the requirements in *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline, to the satisfaction of the DECCW and the Director-General.

SURFACE AND GROUND WATER

Surface Water Discharges

19. The Proponent shall only discharge water from the site in accordance with the provisions of an EPL.

Site Water Management Plan

20. Prior to any works being undertaken in the Extension Area, the Proponent shall prepare and implement a Site Water Management Plan for the project, in consultation with DECCW and NOW, and to the satisfaction of the Director-General. This plan must be prepared by suitably qualified expert/s whose appointment/s have been approved by the Director-General, and must include:
- (a) a Site Water Balance;
 - (b) an Erosion and Sediment Control Plan; and
 - (c) a Water Monitoring Program.

Note: The Site Water Management Plan must incorporate the existing quarry operations and operations within the extension area.

Site Water Balance

21. The Site Water Balance must include details of:
- (a) sources and reliability of water supply;
 - (b) water management;
 - (c) water use; and
 - (d) any off-site discharges.

Erosion and Sediment Control

22. The Erosion and Sediment Control Plan must:
- (a) be consistent with the requirements of the *Managing Urban Stormwater: Soils and Construction Manual* (Landcom 2004, or its latest version);
 - (b) identify activities that could cause soil erosion and generate sediment;
 - (c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;
 - (d) describe the location, function, and capacity of erosion and sediment control structures; and
 - (e) describe what measures would be implemented to maintain the structures over time.

Water Monitoring

23. The Water Monitoring Plan must include:
- (a) water quality assessment criteria;
 - (b) a program to monitor water flows and quality in creeks and other waterbodies that could potentially be affected by the project;
 - (c) a protocol for the investigation, notification, and mitigation of identified exceedances of the water quality assessment criteria; and
 - (d) the procedures that would be followed if any unforeseen impacts are detected during the project.

REHABILITATION AND LANDSCAPE MANAGEMENT

Rehabilitation

24. The Proponent shall progressively rehabilitate the site in a manner that is generally consistent with the conceptual rehabilitation principles and proposed rehabilitation strategy in the EA (shown conceptually in Appendix 2), to the satisfaction of the Director-General.

Offset Strategy

25. Prior to [undertaking any works in the Extension Area](#), the Proponent shall revise the Biodiversity Offset Strategy described in the EA and Response to Submissions (shown conceptually in Appendix 3), to the satisfaction of the Director-General. The revised strategy must be prepared in consultation with the [DECCW](#), and include additional areas where Yellow Box White Box Blakely's Red Gum Woodland EEC would be actively re-established within the identified biodiversity offset areas shown in Appendix 3.
26. Within 3 years of this approval, the Proponent shall make suitable arrangements to provide appropriate long term security for the offset areas to the satisfaction of the Director-General.

Landscape Management Plan

27. The Proponent shall prepare and implement a detailed Landscape Management Plan for the project to the satisfaction of the Director-General. This plan must:
 - (a) be prepared by suitably qualified expert/s whose appointment/s have been approved by the Director-General;
 - (b) submitted to the Director-General for approval prior to [undertaking any works in the Extension Area](#); and
 - (c) include a:
 - Doughboy Hollow Creek Rehabilitation Strategy;
 - Rehabilitation and Biodiversity Offset Management Plan; and
 - Quarry Closure Plan.

Note: The Department accepts that the initial Landscape Management Plan may not include the detailed Quarry Closure Plan. However, if this occurs, the Proponent will be required to seek approval from the Director-General for an alternative timetable for the completion and approval of the Quarry Closure Plan.

Doughboy Hollow Creek Rehabilitation Strategy

28. The Doughboy Hollow Creek Rehabilitation Strategy must:
 - (a) be prepared in consultation with the [I&I NSW](#) and [NOW](#);
 - (b) describe the measures that would be implemented to:
 - remove the weir from Doughboy Hollow Creek;
 - rehabilitate the creek; and
 - rehabilitate and/or re-establish riparian vegetation.

Rehabilitation and Biodiversity Offset Management Plan

29. The Rehabilitation and Biodiversity Offset Management Plan must:
 - (a) be prepared by suitably qualified expert/s whose appointment/s have been approved by the Director-General;
 - (b) describe in general the short, medium, and long term measures that would be implemented to:
 - rehabilitate the site;
 - implement the Biodiversity Offset Strategy and Doughboy Hollow Creek Rehabilitation Strategy; and
 - manage the remnant vegetation and habitat on the site;
 - (c) include a detailed description of what measures would be implemented over the next 3 years to implement the Biodiversity Offset Strategy and Doughboy Hollow Creek Rehabilitation Strategy;
 - (d) include a detailed description of what measures would be implemented over the next 5 years to rehabilitate the site, including the procedures to be implemented for:
 - progressively rehabilitating areas disturbed by quarrying;
 - implementing revegetation and regeneration within the disturbance areas, including establishment of canopy, sub-canopy (if relevant), understorey and ground strata;
 - managing the remnant vegetation and habitat on site;
 - managing impacts on fauna;
 - reducing the visual impacts of the project;
 - landscaping the site to minimise visual impacts;
 - protecting areas outside the disturbance areas;
 - conserving and reusing topsoil;
 - collecting and propagating seeds for rehabilitation works;
 - salvaging and reusing material from the site for habitat enhancement;
 - controlling weeds and feral pests;
 - controlling access; and
 - bushfire management;

- (e) detailed performance and completion criteria for the rehabilitation of the site and implementation of the Biodiversity Offset Strategy and Doughboy Hollow Creek Rehabilitation Strategy;
- (f) a detailed description of how the performance of the rehabilitation of the site and implementation of the Biodiversity Offset Strategy and Doughboy Hollow Creek Rehabilitation Strategy would be monitored over time to achieve the relevant objectives and completion criteria;
- (g) a description of the potential risks to successful revegetation and/or rehabilitation in the offset areas and project area, and a description of the contingency measures that would be implemented to mitigate these risks; and
- (h) details of who is responsible for monitoring, reviewing and implementing the plan.

Quarry Closure Plan

30. The Quarry Closure Plan must:
- (a) define the objectives and criteria for quarry closure;
 - (b) investigate options for the future use of the site, including any final void(s);
 - (c) describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the development; and
 - (d) describe how the performance of these measures would be monitored over time.

Rehabilitation Bond

31. Within 3 months of the approval of the Landscape Management Plan, the Proponent shall lodge a rehabilitation bond with the Director-General to ensure that the rehabilitation and biodiversity offset obligations required in this approval are implemented in accordance with the performance and completion criteria in the Rehabilitation and Biodiversity Offset Management Plan. The rehabilitation bond may in the form of a bank guarantee or security bond. The sum of the bond shall be calculated by:
- (a) a suitably qualified quantity surveyor at \$2.50/m² for the area to be disturbed over the next 5 year period at the quarry; and
 - (b) a suitably qualified rehabilitation expert for land within the biodiversity offset areas where re-establishment of the EEC is proposed, to the satisfaction of the Director-General.

Notes:

- If the rehabilitation and biodiversity offset is completed to the satisfaction of the Director-General, the Department will release the rehabilitation bond.
 - If the rehabilitation and biodiversity offset is not completed to the satisfaction of the Director-General, all or part of the rehabilitation bond will be used to ensure the satisfactory completion of the relevant works.
32. Every 5 years, [following the provision of the rehabilitation bond \(see condition 31\)](#), the Proponent shall review, and if necessary revise, the sum of the bond to the satisfaction of the Director-General. This review must consider:
- (a) the effects of inflation;
 - (b) any changes to the total area of disturbance; and
 - (c) the performance of the rehabilitation against the completion criteria of the Rehabilitation, Biodiversity Offset Management Plan.

TRANSPORT

Product Transport

33. The Proponent shall:
- (a) keep records of the:
 - amount of quarry materials imported onto the site each year;
 - amount of product transported from the site each year;
 - number of truck movements generated by the project, on a weekly basis;
 - number of train movements generated by the project, on a weekly basis;
 - date and time of each train movement generated by the project;
 - (b) provide annual production data to the [I&I NSW](#) using the standard form for that purpose; and
 - (c) include these records in the AEMR.

Road Safety and Condition Audit

34. Prior to [undertaking any works in the Extension Area](#), the Proponent shall undertake a Road Safety and Condition Audit for the project, to the satisfaction of the Director-General. This audit must:
 - (a) be prepared by a suitably independent and qualified expert/s whose appointment has been approved by the Director-General;
 - (b) be prepared in consultation with the RTA and Council;
 - (c) assess the safety, performance and condition of the Ardglen Street-New England Highway intersection and the quarry access route from the New England Highway to the quarry entrance (Ardglen Street, High Street (Swinging Bridges Road), St Stephen Street and Warra Street); and
 - (d) identify any road works that are required to comply with relevant AUSROAD standards or other relevant RTA requirements.
35. Within 12 months of completing the Road Safety and Condition Audit, the Proponent shall undertake (and complete) any road works recommended in the Audit, to the satisfaction of the relevant roads authority (i.e. RTA or Council). If there is a dispute about the implementation of these measures, then the Proponent may refer the matter to the Director-General for resolution.

Road Signage

36. Within 3 months of this approval, the Proponent shall install warning signs ("Truck Turning") on the northern and southern approaches to the quarry access route on the New England Highway, to the satisfaction of the RTA.

Road Maintenance

37. The Proponent shall maintain the quarry access route from the New England Highway to the quarry entrance (Ardglen Street, High Street (Swinging Bridges Road), St Stephen Street and Warra Street) until the cessation of quarrying on the site, to the satisfaction of Council.

If the Proponent and the Council fail to reach agreement on the road maintenance requirements, then either party may refer the matter to the Director-General for resolution. Any determination by the Director-General's on this matter will be binding on the Proponent and the Council.

Road Haulage

38. The Proponent shall ensure that truck movements associated with the project do not exceed 50 movements on average per day.
39. The Proponent shall not use trucks with a capacity of greater than 35 tonnes to transport product from the site, unless otherwise agreed in writing by the RTA.
40. The Proponent shall ensure that all loaded vehicles entering or leaving the site are covered, and are cleaned of materials that may fall onto public roads.

Rail Loading

41. The Proponent may only load a maximum of 2 trains outside the rail loading and distribution hours in Table 1 in any 12 month period, unless agreed to in writing by the Director-General.
42. If the Proponent intends to undertake out of hours rail loading, it must use its best endeavours to notify all local residents at least 12 hours prior to the proposed rail loading, to the satisfaction of the Director-General.

Traffic and Transport Management Plan

43. Prior to [undertaking any works in the Extension Area](#), the Proponent shall prepare and implement a Traffic and Transport Management Plan, to the satisfaction of the Director-General. The plan must include:
 - (a) a driver code of conduct for the project to minimise the impacts of trucks on local residents;
 - (b) the measures that would be put in place to ensure compliance with the driver code of conduct;
 - (c) the measures that would be taken to avoid night time train loading operations; and
 - (d) the procedures for notifying local residents about night time train loading activities when these occur.

VISUAL IMPACT

44. The Proponent shall:
- (a) take all practicable measures to mitigate off-site lighting impacts from the project; and
 - (b) ensure that all external lighting associated with the project complies with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*, to the satisfaction of the Director-General.

ABORIGINAL CULTURAL HERITAGE

45. The Proponent shall not destroy any known Aboriginal objects (as defined in the *National Parks and Wildlife Act 1974*) without the written approval of the Director-General.

GREENHOUSE GAS

46. The Proponent shall:
- (a) monitor the greenhouse gas emissions generated by the project;
 - (b) investigate ways to reduce greenhouse gas emissions generated by the project; and
 - (c) report on greenhouse gas monitoring and abatement measures in the AEMR, to the satisfaction of the Director-General.

WASTE MINIMISATION

47. The Proponent shall:
- (a) monitor the amount of waste generated by the project;
 - (b) investigate ways to minimise waste generated by the project;
 - (c) implement reasonable and feasible measures to minimise waste generated by the project;
 - (d) ensure irrigation of treated wastewater is undertaken in accordance with [DECCW's Use of Effluent by Irrigation](#); and
 - (e) report on waste management and minimisation in the AEMR, to the satisfaction of the Director-General.
48. The Proponent shall ensure that all waste generated or stored on site is assessed, classified and managed in accordance with the [DECCW's Waste Classification Guidelines Part 1: Classifying Waste](#).
-

SCHEDULE 4 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS

1. If the results of monitoring required in Schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria, then the Proponent shall notify the Director-General and the affected landowners and/or existing or future tenants (including tenants of quarry owned properties) accordingly, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the relevant criteria.

INDEPENDENT REVIEW

2. If a landowner (excluding quarry owned properties) considers that the operations of the project are exceeding the impact assessment criteria in Schedule 3 then he/she may ask the Director-General in writing for an independent review of the impacts of the project on his/her land.

If the Director-General is satisfied that an independent review is warranted, the Proponent shall within 3 months of the Director-General's decision:

- (a) consult with the landowner to determine his/her concerns;
 - (b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to conduct monitoring on the land to:
 - determine whether the project is complying with the relevant impact assessment criteria in Schedule 3; and
 - identify the source(s) and scale of any impact on the land, and the project's contribution to this impact; and
 - (c) give the Director-General and landowner a copy of the independent review.
3. If the independent review determines that the project is complying with the relevant impact assessment criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.
 4. If the independent review determines that the project is not complying with the relevant impact assessment criteria in Schedule 3, and that the project is primarily responsible for this non-compliance, then the Proponent shall:
 - (a) take all reasonable and feasible measures, in consultation with the landowner, to ensure that the project complies with the relevant criteria; and
 - (b) conduct further monitoring to determine whether these measures ensure compliance.

If the additional monitoring referred to above subsequently determines that the project is complying with the relevant criteria in Schedule 3, or the Proponent and landowner enter into a negotiated agreement to allow these exceedances, then the Proponent may discontinue the independent review with the approval of the Director-General.

5. If the independent review determines that the relevant criteria in Schedule 3 are being exceeded, then the Proponent shall:
 - (a) take all reasonable and feasible measures, in consultation with the landowner, to ensure that the relevant criteria are complied with; and
 - (b) conduct further monitoring to determine whether these measures ensure compliance; or
 - (c) secure a written agreement with the landowner to allow exceedances of the criteria in Schedule 3.

If the additional monitoring referred to above subsequently determines that the project is complying with the relevant criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.

6. If the landowner disputes the results of the independent review, either the Proponent or the landowner may refer the matter to the Director-General for resolution.

If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (see Appendix 6).

LAND ACQUISITION

7. Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent shall make a binding written offer to the landowner based on:
- (a) the current market value of the landowner's interest in the property at the date of this written request, as if the property was unaffected by the project the subject of the project application, having regard to the:
 - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
 - presence of improvements on the property and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the additional noise mitigation measures in conditions 5 and 6 of Schedule 3;
 - (b) the reasonable costs associated with:
 - relocating within the Liverpool Plains local government area, or to any other local government area determined by the Director-General;
 - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is required; and
 - (c) reasonable compensation for any disturbance caused by the land acquisition process.

However, if at the end of this period, the Proponent and landowner cannot agree on the acquisition price of the land, and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Director-General for resolution.

Upon receiving such a request, the Director-General shall request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer or Fellow of the Institute, to consider submissions from both parties, and determine a fair and reasonable acquisition price for the land, and/or terms upon which the land is to be acquired.

Within 14 days of receiving the independent valuer's determination, the Proponent shall make a written offer to purchase the land at a price not less than the independent valuer's determination.

If the landowner refuses to accept this offer within 6 months of the Proponent's offer, the Proponent's obligations to acquire the land shall cease, unless otherwise agreed by the Director-General.

8. The Proponent shall bear the costs of any valuation or survey assessment requested by the independent valuer, or the Director-General, and the costs of determination referred above.
9. If the Proponent and landowner agree that only part of the land shall be acquired, then the Proponent shall pay all reasonable costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of the plan at the Office of the Registrar-General.
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SCHEDULE 5

ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING & REPORTING

ENVIRONMENTAL MANAGEMENT STRATEGY

1. The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. This strategy must be submitted to the Director-General [for approval prior to any works being undertaken in the Extension Area](#), and:
 - (a) provide the strategic framework for environmental management of the project;
 - (b) identify the statutory requirements that apply to the project;
 - (c) describe in general how the environmental performance of the project would be monitored and managed;
 - (d) describe the procedures that would be implemented to:
 - keep the local community and relevant agencies informed about the operation and environmental performance of the project;
 - receive, handle, respond to, and record complaints;
 - resolve any disputes that may arise during the course of the project;
 - respond to any non-compliance; and
 - respond to emergencies; and
 - (e) describe the role, responsibility, authority, and accountability of all the key personnel involved in environmental management of the project.

ENVIRONMENTAL MONITORING PROGRAM

2. The Proponent shall prepare and implement an Environmental Monitoring Program for the project to the satisfaction of the Director-General. This program must be submitted to the Director-General [for approval prior to any works being undertaken in the Extension Area](#), and consolidate the various monitoring requirements in Schedule 3 of this approval into a single document, and be submitted to the Director-General concurrently with the submission of the relevant monitoring programs/plans.

REPORTING

Incident Reporting

3. Within 7 days of detecting an exceedance of the limits/performance criteria in this approval or the occurrence of an incident that causes (or may cause) harm to the environment, the Proponent shall report the exceedance/incident to the Department and any relevant agencies. This report must:
 - (a) describe the date, time, and nature of the exceedance/incident;
 - (b) identify the cause (or likely cause) of the exceedance/incident;
 - (c) describe what action has been taken to date; and
 - (d) describe the proposed measures to address the exceedance/incident.

Annual Reporting

4. Within 12 months of this approval, and annually thereafter, the Proponent shall submit an AEMR to the Director-General and relevant agencies. This report must:
 - (a) identify the standards and performance measures that apply to the project;
 - (b) describe the works carried out in the last 12 months;
 - (c) describe the works that will be carried out in the next 12 months;
 - (d) include a summary of the complaints received during the past year, and compare this to the complaints received in previous years;
 - (e) include a summary of the monitoring results for the project during the past year;
 - (f) include an analysis of these monitoring results against the relevant:
 - limits/criteria in this approval;
 - monitoring results from previous years; and
 - predictions in the EA;
 - (g) identify any trends in the monitoring results over the life of the project;
 - (h) identify and discuss any non-compliance during the previous year; and
 - (i) describe what actions were, or are being, taken to ensure compliance.

INDEPENDENT ENVIRONMENTAL AUDIT

5. [Prior to 31 December 2012](#), and every 5 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
 - (a) be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been endorsed by the Director-General;
 - (b) assess the environmental performance of the project, and its effects on the surrounding environment;
 - (c) assess whether the project is complying with the relevant standards, performance measures, and statutory requirements;
 - (d) review the adequacy of any strategy/plan/program required under this approval; and, if necessary,
 - (e) recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval.

Note: This audit team must be led by a suitably qualified auditor, and include experts in the field of noise and rehabilitation.

6. Within 6 weeks of completing this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General with a response to any recommendations contained in the audit report.
7. Within 3 months of submitting the audit report to the Director-General, the Proponent shall review and if necessary revise the strategies/plans/programs required under this approval, to the satisfaction of the Director-General.

COMMUNITY CONSULTATIVE COMMITTEE

8. The Proponent shall operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Director-General, in general accordance with the *Guideline for Establishing and Operating Community Consultative Committees for Mining Projects*.

ACCESS TO INFORMATION

9. Within 3 months of the approval of any plan/strategy/program required under this approval (or any subsequent revision of these plans/strategies/programs), or the completion of the audits or AEMRs required under this approval, the Proponent shall:
 - (a) provide a copy of the relevant document/s to the relevant agencies and CCC; and
 - (b) put a copy of the relevant document/s on its website.
 10. During the development, the Proponent shall:
 - (a) include a copy of this approval, as may be modified from time to time, on its website;
 - (b) provide a full summary of monitoring results required under this approval on its website; and
 - (c) update these results on a regular basis (at least every 6 months).
-

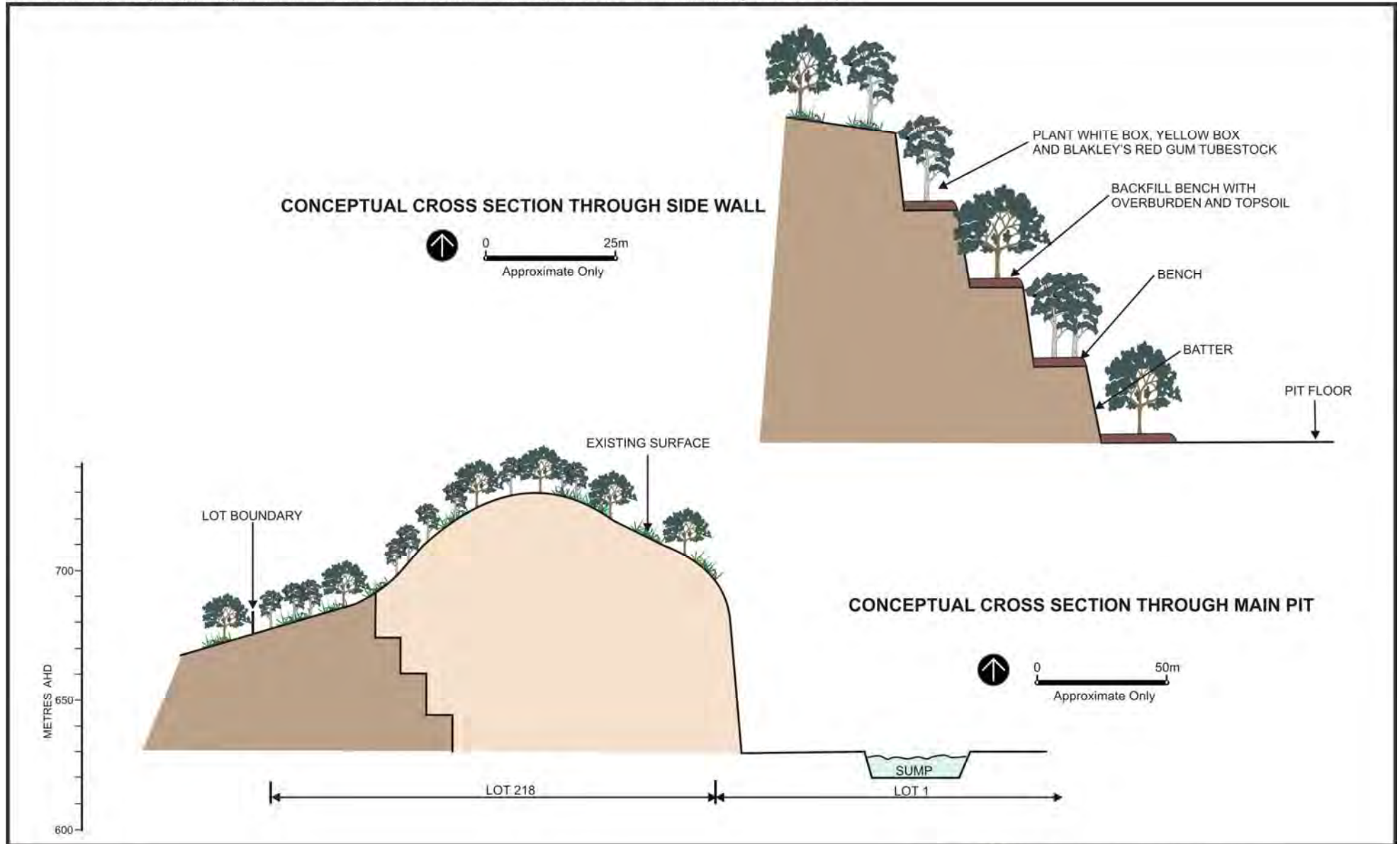
APPENDIX 1 GENERAL PROJECT LAYOUT



APPENDIX 2 CONCEPTUAL REHABILITATION PLAN

Jobs/2005/0038419/Draft Project Approval/Appendix 2/Rehabilitation/Final Landform.cdr 08/07/05 2008 JD Environmental Resources Management Australia Pty Ltd





Appendix 2

Conceptual Cross Sections

Daracon Engineering - Ardglan Quarry, NSW - Draft Project Approval

APPENDIX 3 CONCEPTUAL OFFSET PLAN



APPENDIX 4 STATEMENT OF COMMITMENTS

Table 1: Statement of Commitments

Item Number	Item	Commitment	Responsibility	Timing
1	Scope of Development	The project will be carried out generally in accordance with the following plans and documentation, except where amended by the conditions of the project approval: <ul style="list-style-type: none"> the Environmental Assessment (EA) prepared by ERM (June, 2007) and accompanying specialist reports; the Response to Submissions report prepared by ERM (November, 2007); and this revised Statement of Commitments. 	Daracon Quarries	Ongoing for the duration of the project.
2	Statutory Requirements	All necessary licences, permits and approvals will be obtained and maintained for the project.	Daracon Quarries	Ongoing for the duration of the project.
3		In accordance with section 104A of the EP&A Act, the proponent will surrender the existing development consent applying to Lot 1 DP 1001734, issued by Murrumbidgee Shire Council in May 1994.	Daracon Quarries	Within 2 years of work commencing within the extension area.
4	General	The proponent will prepare and implement an Environmental Management System (EMS) based on the AS/NZS ISO 14001:2004 - Environmental Management Systems. The EMS will: <ul style="list-style-type: none"> incorporate an operational Environmental Management Plan (EMP); detail potential environmental risks due to operation of the proposed quarry; provide measures for the prevention, minimisation and management of these impacts to within acceptable limits; and provide a means for the project to improve environmental performance and move towards environmental sustainability. 	Daracon Quarries	EMS to be submitted for approval prior to work commencing within the extension area.
5	Water Management	The proponent will prepare and implement a Surface Water Management Plan for the project that will include: <ul style="list-style-type: none"> an Erosion and Sediment Control Plan (including procedures to minimise erosion, capture of sediment on-site, and maintenance of control structures); 	Daracon Quarries	Plan to be submitted for approval prior to work commencing within the extension area.

Item Number	Item	Commitment	Responsibility	Timing															
		<ul style="list-style-type: none">• a Site Water Balance; and• a Water Quality Monitoring Program																	
6	Biodiversity	<p>The proponent will implement the biodiversity offset strategy outlined in the EA, which includes the conservation and long term protection of the areas described in <i>Table 1</i>.</p> <p><i>Table 1 Biodiversity Offset Areas</i></p> <table><tr><th>Land Description</th><th>Area (ha)</th><th>Proposed Management Strategy</th></tr><tr><td>Lot 187 DP 751028</td><td>8.2</td><td>stock removal, weed control, planting of EEC trees, transport of logs and rocks, provision of nest boxes</td></tr><tr><td>Lot 39 DP 751028</td><td>11.65</td><td>stock removal, weed control, major planting of EEC trees and grasses, transport of logs and rocks</td></tr><tr><td>Lot 49 DP 751028</td><td>16.3</td><td>stock removal, weed control</td></tr><tr><td>Total</td><td>36.15</td><td></td></tr></table>	Land Description	Area (ha)	Proposed Management Strategy	Lot 187 DP 751028	8.2	stock removal, weed control, planting of EEC trees, transport of logs and rocks, provision of nest boxes	Lot 39 DP 751028	11.65	stock removal, weed control, major planting of EEC trees and grasses, transport of logs and rocks	Lot 49 DP 751028	16.3	stock removal, weed control	Total	36.15		Daracon Quarries	Ongoing for the duration of the project.
Land Description	Area (ha)	Proposed Management Strategy																	
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Lot 49 DP 751028	16.3	stock removal, weed control																	
Total	36.15																		
7		<p>The proponent will prepare a detailed biodiversity offset management plan in consultation with the DECC and submit it for approval by the Director-General. The plan will include:</p> <ul style="list-style-type: none">▪ proposed staging;▪ planting details such as final density, species mix, sowing rates, fertiliser;▪ proposed maintenance schedule;▪ weed control;▪ importation of rock and log shelter;▪ topsoil handling;▪ fencing;	Daracon Quarries	Plan to be submitted for approval prior to work commencing within the extraction area.															

Item Number	Item	Commitment	Responsibility	Timing
		<ul style="list-style-type: none"> pre-clearing surveys of all hollow bearing trees within the proposed quarry extension area; herbivore control; and number and location of nest boxes. 		
8		The proponent will make suitable arrangements to provide appropriate long term security for the offset areas.	Daracon Quarries	Within 3 years of work commencing within the extraction area.
9	Noise	<p>The proponent will continue to implement the following measures, which are currently in place at Ardglen Quarry, to mitigate noise impacts:</p> <ul style="list-style-type: none"> quarry hours are restricted to between 6am and 5.30pm; noise created by the haul trucks, both empty and loaded, is reduced by imposing a speed limit of 50 km/h when travelling on local roads between the quarry and the highway. Trucks on site are limited to a speed of 25 km/h; all on-site, fixed and mobile diesel-powered plant, excluding road vehicles, are correctly fitted and maintained to manufacturer specifications. Particular attention is given to engine exhaust systems and the care and maintenance of mufflers. <p>Further noise control is nominated through the implementation of the following measures:</p> <ul style="list-style-type: none"> reduction of equipment through the separation of site activities to overburden stripping and extraction, whereby they do not occur simultaneously; rail loading will be limited to the day period (7am to 6pm) as much as practicable; the surge bin will be lined with latex or polymer liners to reduce impulsive noise; a sheet metal enclosure will be built around the rail loader discharge and extend to include the rail wagon being loaded. The enclosure will be constructed of sheet metal and will cover the length of a minimum of three wagons whereby the wagon being loaded will be in the centre of the enclosure. The enclosure will be open at the ends and will contain a roof which will be connected to the rail loader discharge. 	Daracon Quarries	Ongoing for the duration of the project.

Item Number	Item	Commitment	Responsibility	Timing																
		<p>Gaps between the loader discharge and the roof will be sealed;</p> <ul style="list-style-type: none">▪ the two scrapers initially assigned for overburden stripping will be replaced by one excavator and two articulated dump trucks;▪ the existing three crushers will be acoustically treated by extending the metal cladding on the crushing and screening station building to ground level with no gaps or openings;▪ the existing screens will be located behind earth bunds; and▪ mobile acoustic barriers or earth mounds will surround the drill rig and any mobile plant situated on the surface during initial stripping; and▪ where land slopes away from stripping activities to receivers, barriers will be raised to a height of 4 metres, so there is no direct line of sight to receivers.																		
10		<p>Except during night-time rail loading activities, the proponent will ensure that the noise generated by the project does not exceed the levels set out in <i>Table 2</i>, at any privately-owned residence, unless a specific agreement is reached with the landholder, in which case the proponent may exceed the noise limits set out in <i>Table 2</i> in accordance with the negotiated noise agreement.</p> <p><i>Table 2 Noise Criteria</i></p> <table><tr><th>Land</th><th>Noise Level LAeq dB(A)</th></tr><tr><td>1 - Burraston</td><td>35</td></tr><tr><td>2 - Rose</td><td>35</td></tr><tr><td>4 - CM Thomson</td><td>44</td></tr><tr><td>5 - M Taylor</td><td>45</td></tr><tr><td>6 - S Thompson</td><td>45</td></tr><tr><td>9 - Bates</td><td>37</td></tr><tr><td>10 - Avery</td><td>38</td></tr></table>	Land	Noise Level LAeq dB(A)	1 - Burraston	35	2 - Rose	35	4 - CM Thomson	44	5 - M Taylor	45	6 - S Thompson	45	9 - Bates	37	10 - Avery	38	Daracon Quarries	Ongoing for the duration of the project.
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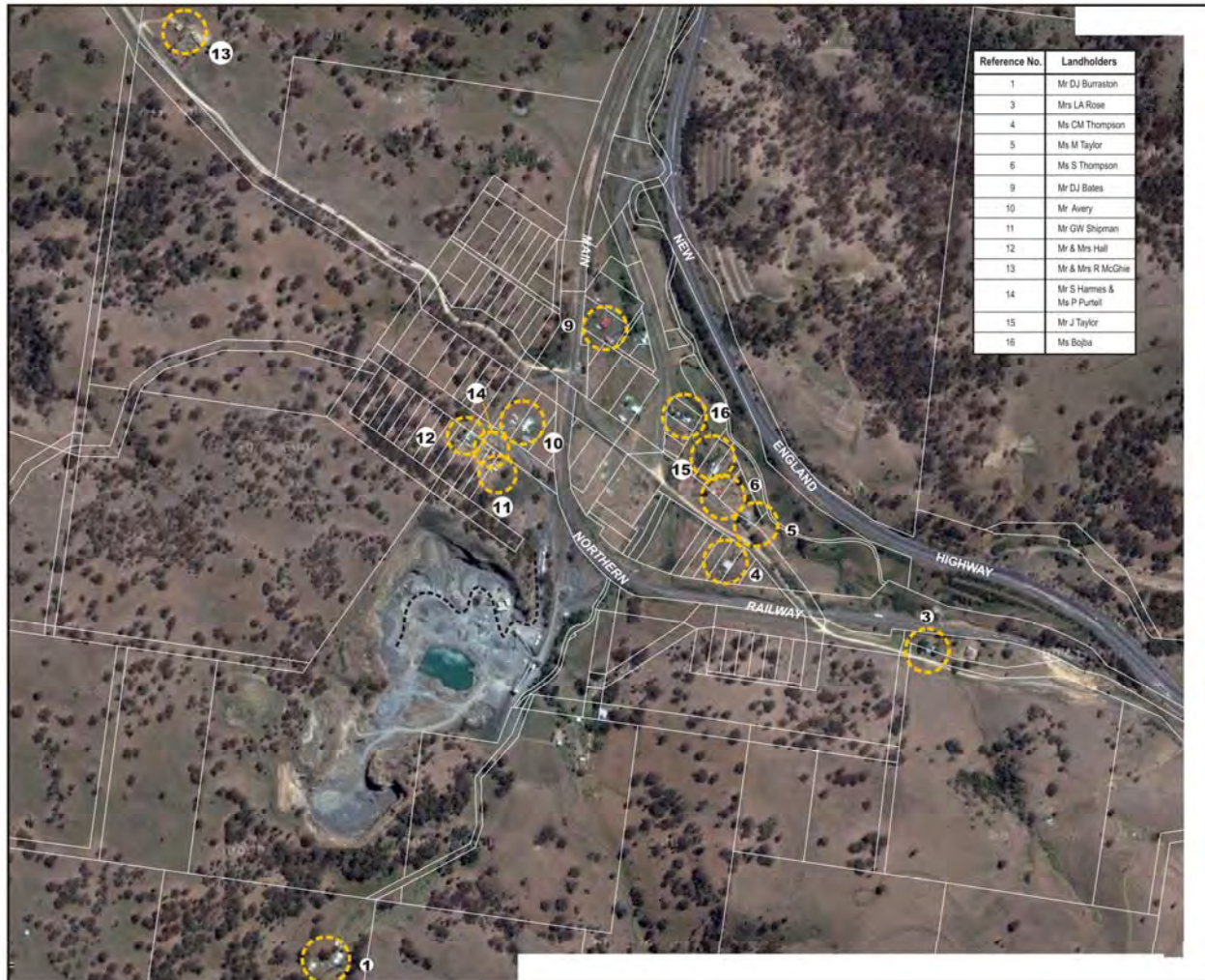
Item Number	Item	Commitment	Responsibility	Timing
		11 - Shipman 37		
		12 - Hall 36		
		13 - McGhie 35		
		14 - Purtell 36		
		15 - J Taylor 43		
		16 - Bojba 40		
11	Blasting and Vibration	<p>The proponent will implement the following measures to mitigate the impacts of blasting and vibration:</p> <ul style="list-style-type: none"> ▪ blasting will be limited to between the hours of 10am and 4pm, Monday to Friday and residents in the vicinity of the quarry will be given adequate notification of forthcoming blasts; ▪ air-blast overpressure from any blast will not exceed 120 dB(Lpeak) at any privately-owned residence for more than 5% of all blasts over a 12 month period. It will not exceed 115 dB(Lpeak) at any time, unless specific prior agreement is reached with the affected landholder; ▪ peak particle velocity (ppv) from ground vibration will not exceed 5 mm/s at any privately-owned residence for more than 5% of the total number of blasts over a 12 month period. The maximum level will not exceed 10 mm/s at any time; ▪ the existing blast management strategy will continue to be implemented to ensure appropriate charge masses are used to avoid excessive air blast overpressure and ground vibrations; and ▪ a Blast Monitoring Program will be prepared and submitted to the Director-General for approval 	Daracon Quarries	Ongoing for the duration of the project.

Item Number	Item	Commitment	Responsibility	Timing
12	Air Quality	<p>In addition to the dust mitigation measures currently employed, the proponent will implement the following measures to ensure particulate matter emissions are minimised:</p> <ul style="list-style-type: none"> ▪ revegetation of exposed surfaces where possible; ▪ sealing the haul road; ▪ limiting the speed limit on unpaved surfaces to 15 km/hr; ▪ high level watering of unpaved road surfaces (greater than 2L/m²/hr); ▪ covering all loads leaving the site; ▪ building a wheel wash at the end of the unpaved section of the haul road (after the weighbridge); and ▪ wet suppression or chemical coating of static stockpiles. 	Daracon Quarries	Ongoing for the duration of the project.
13		<p>The proponent will prepare and implement an air quality monitoring program for the project. The program will include:</p> <ul style="list-style-type: none"> ▪ a series of dust deposition gauges operated in accordance with Australian/New Zealand Standard AS/NZS 3580.10.1:2003; and ▪ a series of high volume or low volume air samplers to monitor levels of PM10, operated in accordance with Australian/New Zealand AS/NZS 3580.9.6:2003 and AS/NZS 3580.9.6:2003. 	Daracon Quarries	Program to be submitted for approval prior to work commencing within the extension area.
14	Rehabilitation	The proponent will prepare a detailed biodiversity offset plan to provide an integrated plan for the whole site, considering the existing quarry areas, the western extension, the areas of box-gum woodland to be preserved and the areas to be planted as offsets. This plan will be prepared in liaison with the DECC and lodged for approval by the Director-General.	Daracon Quarries	Plan to be submitted for approval prior to work commencing within the extension area.
15		The proponent will progressively rehabilitate the site, generally in accordance with the rehabilitation strategy outlined in the EA.	Daracon Quarries	Ongoing for the duration of the project.

Item Number	Item	Commitment	Responsibility	Timing
16		The proponent will lodge a rehabilitation bond with the Director-General to ensure that rehabilitation of the site is satisfactorily completed, generally in accordance with the rehabilitation strategy outlined in the EA.	Daracon Quarries	Within 6 months of work commencing within the extension area.
17	Traffic Management and Access	The proponent will not transport more than 500,000 tonnes of product from the site each year.	Daracon Quarries	Ongoing for the duration of the project.
18		The proponent will keep daily records of: <ul style="list-style-type: none"> the type and amount of product transported from the site and the method of transportation i.e. road or rail; and the type and amount of quarry material imported onto the site and the method of transportation i.e. road or rail. 	Daracon Quarries	Ongoing for the duration of the project.
19		The proponent will maintain the quarry access route from the New England Highway to the quarry entrance, to at least its present standard (two lane rural road), to the satisfaction of Council.	Daracon Quarries	Ongoing for the duration of the project.
20	Visual Amenity	The proponent will implement the following mitigation measures to reduce the potential visual impacts of the project: <ul style="list-style-type: none"> those areas of the quarry in which the resource has been exhausted will be progressively rehabilitated and revegetated; and further planting will be undertaken along the ridgeline to the west of the proposed extension area. 	Daracon Quarries	Further planting to be undertaken prior to work commencing within the extension area.

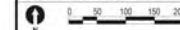
21	Aboriginal Cultural Heritage	Should any Aboriginal objects (artefacts) be exposed during ground surface disturbance, all works involving ground surface disturbance will be suspended. A representative of the Nungaroo Local Aboriginal Land Council and an archaeologist will conduct an assessment of the significance of the Aboriginal object(s) and identify appropriate mitigation and management measures.	Daracon Quarries	Ongoing for the duration of the project.
22	Community Consultation	The proponent will continue to engage the community in consultation, with the aim of providing the community with up-to-date information in relation to the project and quarry operations in general, and allowing the community to provide feedback and raise any issues or concerns. On-going consultation will include distribution of an annual community newsletter and individual face-to-face meetings with adjoining landowners and other stakeholders when required.	Daracon Quarries	Ongoing for the duration of the project.
23	Annual Reporting	<p>The proponent will prepare and submit to the Director-General an Annual Environmental Management Report (AEMR). The AEMR will:</p> <ul style="list-style-type: none"> ▪ include a summary of the environmental monitoring results for the project for the past year; ▪ include an analysis of the monitoring results against relevant limits/criteria and monitoring results from previous years; and ▪ identify and discuss any non-compliances during the past year and detail any actions taken to ensure compliance. 	Daracon Quarries	Report to be submitted annually

APPENDIX 5 LOCATION OF RESIDENCES



Appendix 5 Nearest Residences

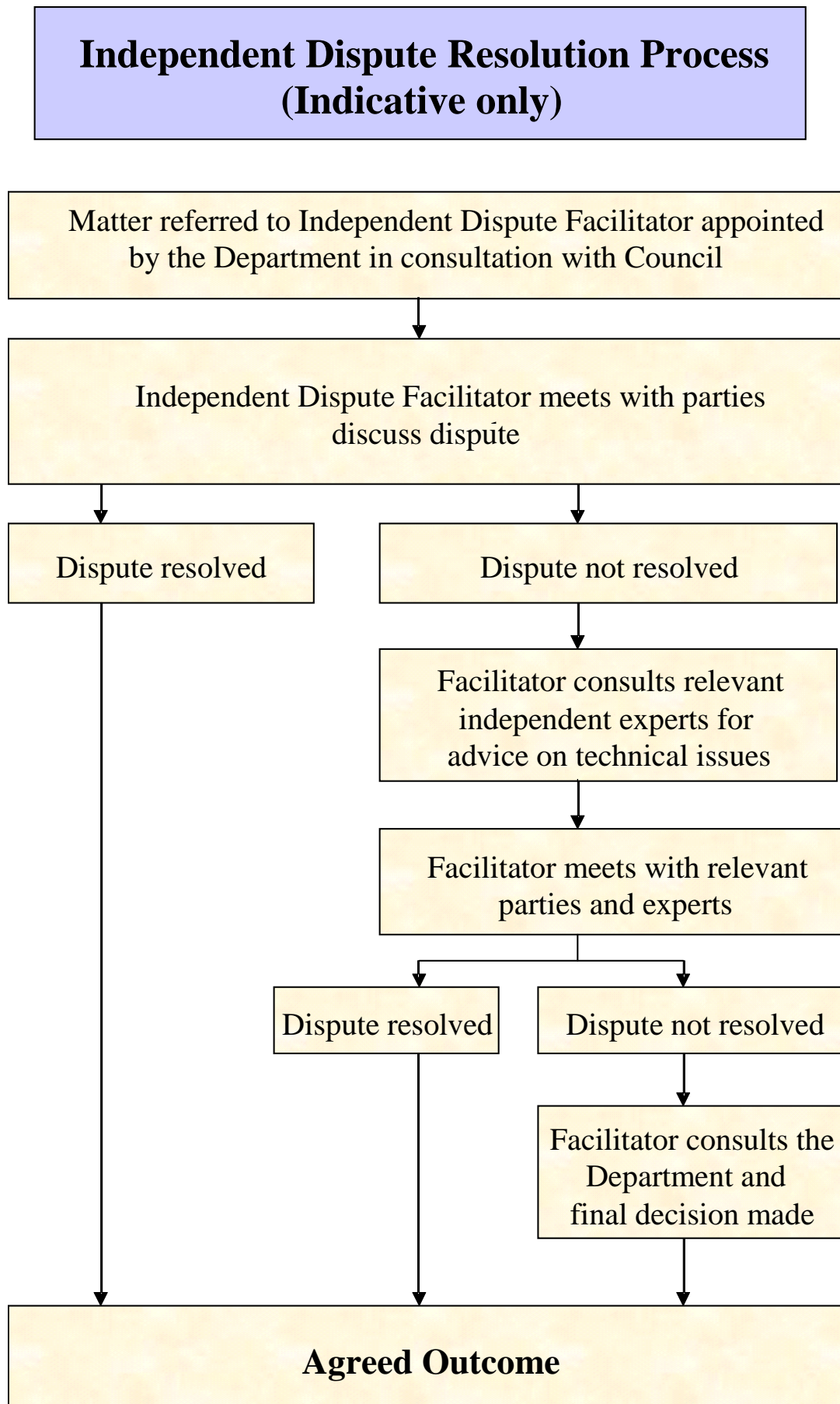
Client: Darcon Engineering
 Project: Antigen Quarry
 Drawing No: 0038419r, DoP request, let may 08_01
 Date: 22/05/08 Drawing size: A3
 Drawn by: JD Reviewed by: OM
 Source: Google Maps
 Scale: Refer to Scale Bar



Environmental Resources Management Australia Pty Ltd
 53 Bonville Avenue, Thornbury, NSW 2322
 Telephone +61 2 4964 2150



**APPENDIX 6
INDEPENDENT DISPUTE RESOLUTION PROCESS**



*Appendix 2 Noise monitoring reports*Included:

- August 2018 Noise Monitoring Report
- November 2018 Noise Monitoring Report



21 August 2018

Ref: 161308/8012

Daracon Quarries Pty Ltd
PO Box 299
WALLSEND NSW 2287

RE: AUGUST 2018 ATTENDED NOISE MONITORING RESULTS – ARDGLEN QUARRY

This letter report presents the results of attended noise monitoring conducted for the Ardglenn Quarry (AQ) on Thursday 16th August 2018. The monitoring was carried out to measure noise emissions from the operations of the quarry. Noise monitoring was carried out in accordance with the conditions of the AQ Noise Monitoring Plan (NMP) as detailed below.

NOISE CRITERIA

*The Proponent shall ensure that the noise generated by the project does not exceed the noise impact assessment criteria in **Table 1** at any residence on privately-owned land, or more than 25% of any privately owned land.*

Table 1 Noise Impact Assessment Criteria				
Land	Day Leq (15 min)	Evening Leq (15 min)	Night	
			Leq (15 min)	L1 (1 min)
1 Burraston	35	35	35	45
3 Rose	35	35	35	45
4 C M Thompson	44	35	35	45
5 M Taylor	45	35	35	45
6 S Thompson	45	35	35	45
9 Bates	37	35	35	45
10 Avery	38	35	35	45
11 Shipman	37	35	35	45
12 Hall	36	35	35	45
13 McGhie	35	35	35	45
14 Purtell	36	35	35	45
15 J Taylor	43	35	35	45
16 Bojba	40	35	35	45
All other privately owned land	35	35	35	45

However, if the Proponent has a written negotiated noise agreement with any landowner of the land listed in Table 1, and a copy of this agreement has been forwarded to the Department and the DECCW, then the Proponent may exceed the noise limits in Table 1 in accordance with the negotiated agreement. The Proponent may also exceed the L1 (1 min) and Leq (15 min) noise impact criteria during out of hours rail loading activities provided they are conducted in accordance with Section 3, Condition 41 of the Project Approval (which is reproduced below).

41. The Proponent may only load a maximum of 2 trains outside the rail loading and distribution hours listed in Table 1 (of the Project Approval, being Monday to Sunday 7:00am to 10:00pm) in any 12 month period, unless agreed in writing by the Director General.

Notes:

- For information on the numbering and identification of properties used in this approval see Figure 2 on Page 14 of this Noise Monitoring Program).
- To determine compliance with the LAeq (15 minute) noise limits, noise from the project is to be measured at the most affected point on or within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the development is impractical, the DECCW may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.
- To determine compliance with the L1 (1 minute) noise limits, noise from the project is to be measured 1m from the dwelling facade. Where it can be demonstrated that direct measurement of noise from the development is impractical, the DECCW may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy).
- The noise emission limits identified in the above table apply under meteorological conditions of:
 - wind speeds of up to 3 m/s at 10 metres above ground level; or
 - Temperature inversion conditions of up to 3°C/100m, and wind speeds of up to 2 m/s at 10 metres above ground level.

NOISE MONITORING LOCATIONS

Noise measurement locations for the attended noise survey are listed below and shown in the accompanying **Figure 1**:

Location 4: C M Thompson
Location 13: McGhie
Location 14: Purtell
Location 16: Bojba



Figure 1 – Attended Noise Monitoring Locations

ATTENDED NOISE MEASUREMENTS

Noise emission levels were measured with Brüel & Kjær Type 2260 Precision Sound Analysers. These instruments have Type 1 characteristics as defined in AS1259-1982 “Sound Level Meters”. Calibration of the instruments was confirmed with a Brüel & Kjær Type 4231 Sound Level Calibrator prior to and at the completion of measurements.

Meteorological data used in this report was obtained from a hand held weather station with measurements made at approximately 2.5m above ground level. The weather throughout the survey was mild with relatively clear skies at 1 to 2 octas cloud cover. The wind speed was variable throughout at 1 to 2.5 m/s generally from the north west.

Throughout the monitoring period the quarry was operating at typical capacity.

RESULTS OF ATTENDED MONITORING

The measured noise levels, over 1 second intervals, were analysed using Brüel & Kjær “*Evaluator*” software. The software enables the contributions of the quarry and other significant noise sources to the overall to be quantified.

Noise levels were recorded for each of the Leq (15 min), Lmax, L1, L10, L90 and Lmin percentiles. As shown in Table 1, the noise criterion for AQ during the day is based on an Leq noise level. The results, shown in **Table 2**, represent the total 15 minute Leq noise level for all noise sources and the relative contributions of each. Levels for the other percentiles are not shown as they have no compliance criteria for comparison but are available on request. The exception is the L1 (1 min) noise level (which is the standard measure of sleep disturbance) which is applicable to noise emissions at night (i.e. between 10 pm and 7 am).

Table 2 Ardglen Quarry Noise Monitoring Results – 16 August 2018 (Day)				
Location	Time	dB(A), Leq	Wind speed/ direction	Identified Noise Sources
4. Thompson	4:17 pm	48	2 m/s NNW	Traffic (47), birds (25), AQ barely audible
13. McGhie	4:55 pm	41	2.5 m/s NW	Birds (39), traffic (36), AQ inaudible
14. Purtell	4:35 pm	52	1 m/s NW	Traffic (52), birds (40), AQ barely audible
16. Bojba	4:00 pm	52	1 m/s NW	Traffic (52), birds (40), AQ inaudible

The results in Table 2 show that under the operating conditions at the time the noise emissions from AQ were compliant with the relevant noise criteria at all monitoring locations.

The results of the noise monitoring programme have shown that AQ is operating within approved noise limits. No actions are recommended with respect to noise management at the Quarry.

UNATTENDED NOISE MEASUREMENTS

The NMP requires that unattended noise logging be undertaken over a period of seven days, part of which coincides with the quarterly attended noise monitoring. To measure the acoustic environment Rion NL-42 sound level meters, set up as environmental noise loggers, were located at the locations shown in Figure 2 from 9th to 16th August, 2018. **Table 3** shows a summary of the relevant measured data from the loggers which is also shown graphically in **Appendix I**.

TABLE 3 MEASURED LOGGER NOISE LEVELS dB(A) 9th to 16th August, 2018						
Logger Location	Day (7am to 6pm)		Evening (6pm to 10 pm)		Night (10pm to 7am)	
	Leq	L90	Leq	L90	Leq	L90
Logger 1	57	42	54	37	54	34
Logger 2	58	40	53	38	51	38



Figure 2 – Unattended Noise Monitoring Locations

The unattended noise loggers measure the total noise level in the environment but the data cannot discriminate between various noise sources. As such, the data is presented here with no further analysis.

We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 4954 2276.

Yours faithfully,

SPECTRUM ACOUSTICS PTY LIMITED

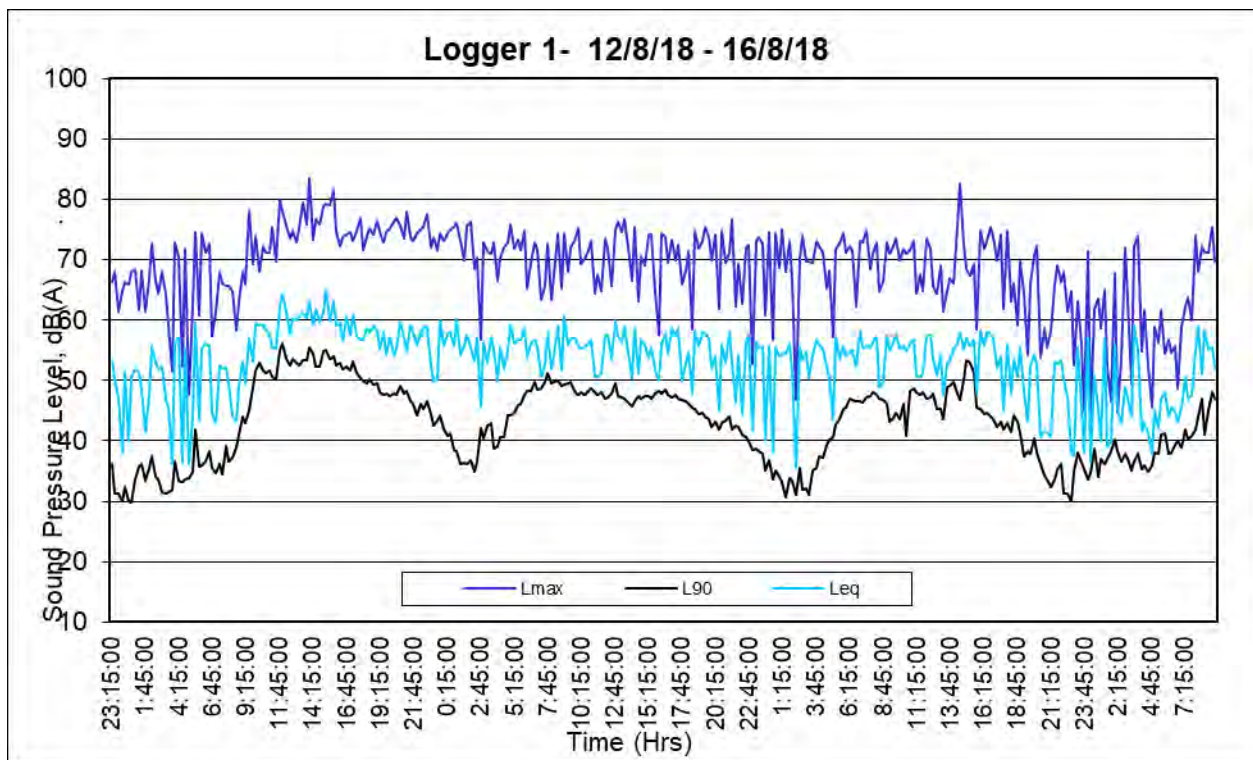
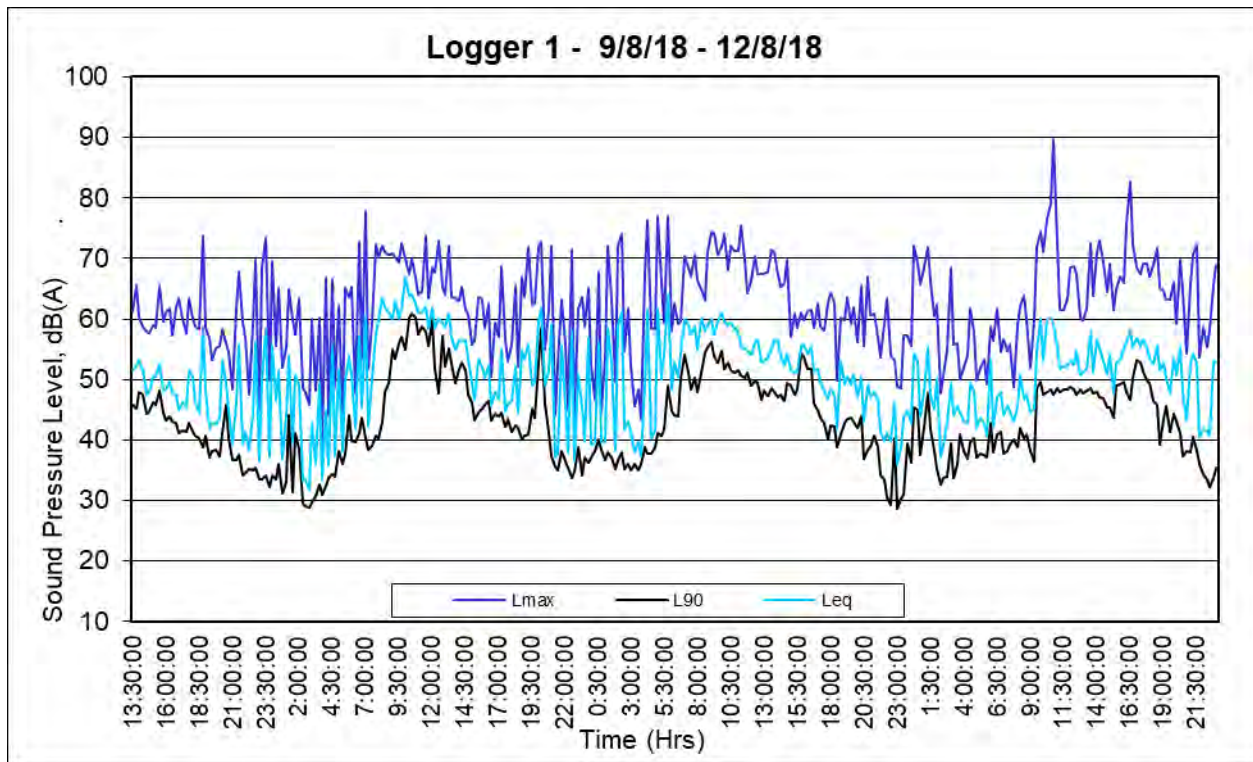
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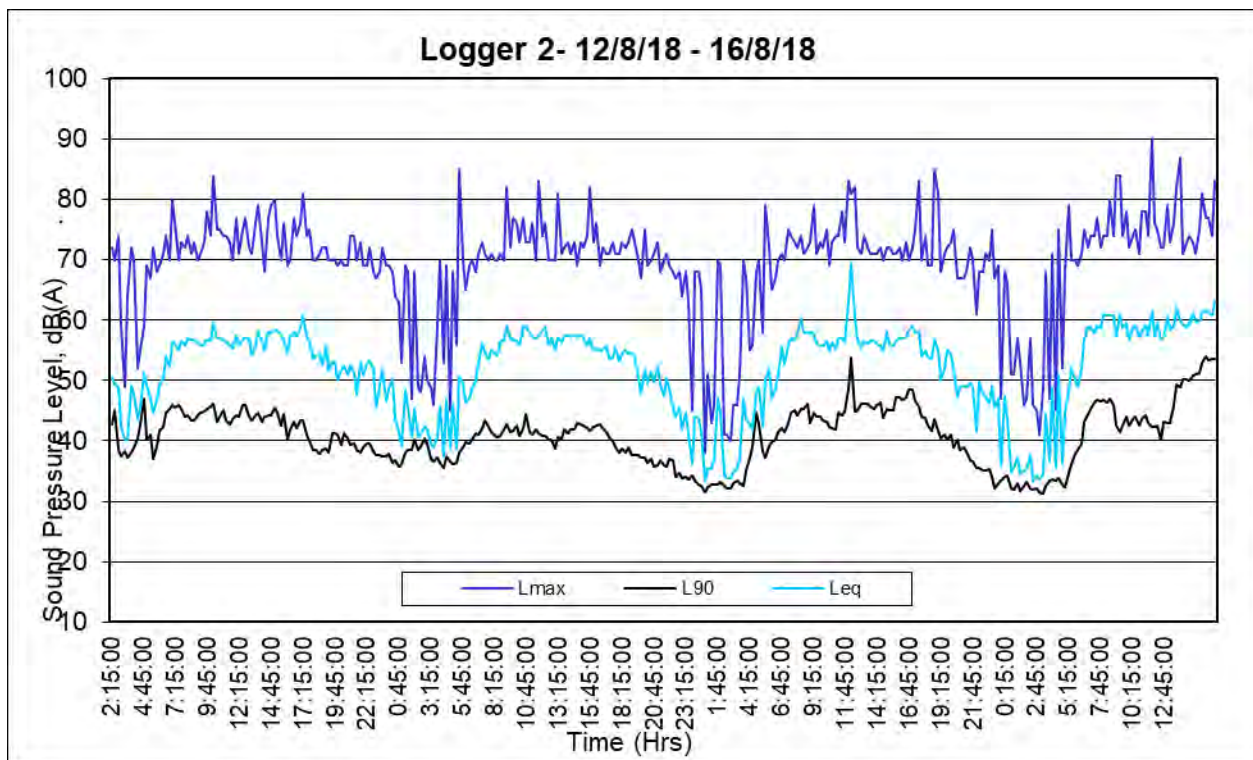
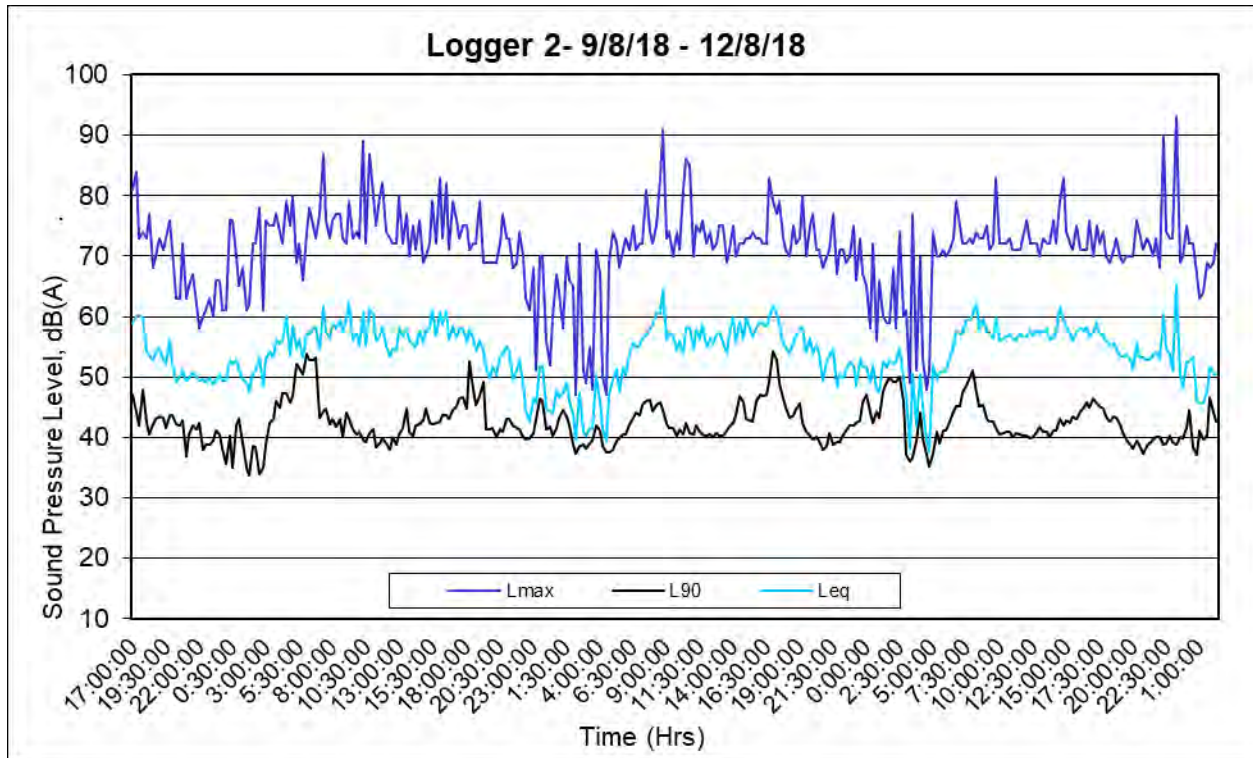
Ross Hodge
Acoustical Consultant

Review:

Neil Pennington
Acoustical Consultant

APPENDIX A
NOISE LOGGER CHARTS







23 November 2018

Ref: 161308/8162

Daracon Quarries Pty Ltd
PO Box 299
WALLSEND NSW 2287

RE: NOVEMBER 2018 ATTENDED NOISE MONITORING RESULTS – ARDGLEN QUARRY

This letter report presents the results of attended noise monitoring conducted for the Ardglenn Quarry (AQ) on Friday 16th November 2018. The monitoring was carried out to measure noise emissions from the operations of the quarry. Noise monitoring was carried out in accordance with the conditions of the AQ Noise Monitoring Plan (NMP) as detailed below.

NOISE CRITERIA

*The Proponent shall ensure that the noise generated by the project does not exceed the noise impact assessment criteria in **Table 1** at any residence on privately-owned land, or more than 25% of any privately owned land.*

Table 1 Noise Impact Assessment Criteria				
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			Leq (15 min)	L1 (1 min)
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4 C M Thompson	44	35	35	45
5 M Taylor	45	35	35	45
6 S Thompson	45	35	35	45
9 Bates	37	35	35	45
10 Avery	38	35	35	45
11 Shipman	37	35	35	45
12 Hall	36	35	35	45
13 McGhie	35	35	35	45
14 Purtell	36	35	35	45
15 J Taylor	43	35	35	45
16 Bojba	40	35	35	45
All other privately owned land	35	35	35	45

However, if the Proponent has a written negotiated noise agreement with any landowner of the land listed in Table 1, and a copy of this agreement has been forwarded to the Department and the DECCW, then the Proponent may exceed the noise limits in Table 1 in accordance with the negotiated agreement. The Proponent may also exceed the L1 (1 min) and Leq (15 min) noise impact criteria during out of hours rail loading activities provided they are conducted in accordance with Section 3, Condition 41 of the Project Approval (which is reproduced below).

41. The Proponent may only load a maximum of 2 trains outside the rail loading and distribution hours listed in Table 1 (of the Project Approval, being Monday to Sunday 7:00am to 10:00pm) in any 12 month period, unless agreed in writing by the Director General.

Notes:

- For information on the numbering and identification of properties used in this approval see Figure 2 on Page 14 of this Noise Monitoring Program).
- To determine compliance with the LAeq (15 minute) noise limits, noise from the project is to be measured at the most affected point on or within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the development is impractical, the DECCW may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.
- To determine compliance with the L1 (1 minute) noise limits, noise from the project is to be measured 1m from the dwelling facade. Where it can be demonstrated that direct measurement of noise from the development is impractical, the DECCW may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy).
- The noise emission limits identified in the above table apply under meteorological conditions of:
 - wind speeds of up to 3 m/s at 10 metres above ground level; or
 - Temperature inversion conditions of up to 3°C/100m, and wind speeds of up to 2 m/s at 10 metres above ground level.

NOISE MONITORING LOCATIONS

Noise measurement locations for the attended noise survey are listed below and shown in the accompanying **Figure 1**:

Location 4: C M Thompson
Location 13: McGhie
Location 14: Purtell
Location 16: Bojba



Figure 1 – Attended Noise Monitoring Locations

ATTENDED NOISE MEASUREMENTS

Noise emission levels were measured with Brüel & Kjær Type 2260 Precision Sound Analysers. These instruments have Type 1 characteristics as defined in AS1259-1982 “Sound Level Meters”. Calibration of the instruments was confirmed with a Brüel & Kjær Type 4231 Sound Level Calibrator prior to and at the completion of measurements.

Meteorological data used in this report was obtained from a hand held weather station with measurements made at approximately 2.5m above ground level. The weather throughout the survey was mild with relatively clear skies with 3 to 4 octas cloud cover. The wind speed was variable throughout at 2.5 to 4 m/s generally from the south.

Throughout the monitoring period the quarry was operating at typical capacity. Plant items working at the quarry are detailed below;

- D10 dozer;
- 980 Loader; and
- Watercart intermittently.

RESULTS OF ATTENDED MONITORING

The measured noise levels, over 1 second intervals, were analysed using Brüel & Kjær “*Evaluator*” software. The software enables the contributions of the quarry and other significant noise sources to the overall to be quantified.

Noise levels were recorded for each of the Leq (15 min), Lmax, L1, L10, L90 and Lmin percentiles. As shown in Table 1, the noise criterion for AQ during the day is based on an Leq noise level. The results, shown in **Table 2**, represent the total 15 minute Leq noise level for all noise sources and the relative contributions of each. Levels for the other percentiles are not shown as they have no compliance criteria for comparison but are available on request. The exception is the L1 (1 min) noise level (which is the standard measure of sleep disturbance) which is applicable to noise emissions at night (i.e. between 10 pm and 7 am).

TABLE 3 Ardglen Quarry Noise Monitoring Results – 16 November 2018 (Day)				
Location	Time	dB(A), Leq	Wind speed/ direction	Identified Noise Sources
4. Thompson	2:40 pm	42	2.5 m/s S	Traffic (41), birds (34), AQ inaudible
13. McGhie	3:30 pm	40	4 m/s S	Traffic (37), birds (37), AQ inaudible
14. Purtell	3:10 pm	45	2.5 m/s S	Traffic (43), birds (42), AQ inaudible
16. Bojba	2:00 pm	44	2.5 m/s S	Traffic (44), birds (36), AQ inaudible

The results in Table 2 show that under the operating conditions at the time the noise emissions from AQ were compliant with the relevant noise criteria at all monitoring locations.

The results of the noise monitoring programme have shown that AQ is operating within approved noise limits. No actions are recommended with respect to noise management at the Quarry.

UNATTENDED NOISE MEASUREMENTS

The NMP requires that unattended noise logging be undertaken over a period of seven days, part of which coincides with the quarterly attended noise monitoring. To measure the acoustic environment Rion NL-42 sound level meters, set up as environmental noise loggers, were located as shown in Figure 2 from 9th to 16th August, 2018. **Table 3** shows a summary of the relevant measured data from the loggers which is also shown graphically in **Appendix I**.

TABLE 3 Measured Logger Noise Levels dB(A) 9th to 16th November, 2018						
Logger Location	Day (7am to 6pm)		Evening (6pm to 10 pm)		Night (10pm to 7am)	
	Leq	L90	Leq	L90	Leq	L90
Logger 1	56	44	53	39	49	32
Logger 2	55	34	51	34	50	30



Figure 2 – Unattended Noise Monitoring Locations

The logger locations were chosen to be representative of the acoustic environment of the closest residences to the quarry and for security reasons.

Logger 1 was located on the fence at location R 14. This is adjacent to the attended noise monitoring location for this residence. Logger 2 was in an open paddock north of the house.

The unattended noise loggers measure the total noise level in the environment but the data cannot discriminate between various noise sources. As such, the data is presented here with no further analysis.

We trust this report fulfils your requirements at this time, however, should you require additional information or assistance please contact the undersigned on 4954 2276.

Yours faithfully,

SPECTRUM ACOUSTICS PTY LIMITED

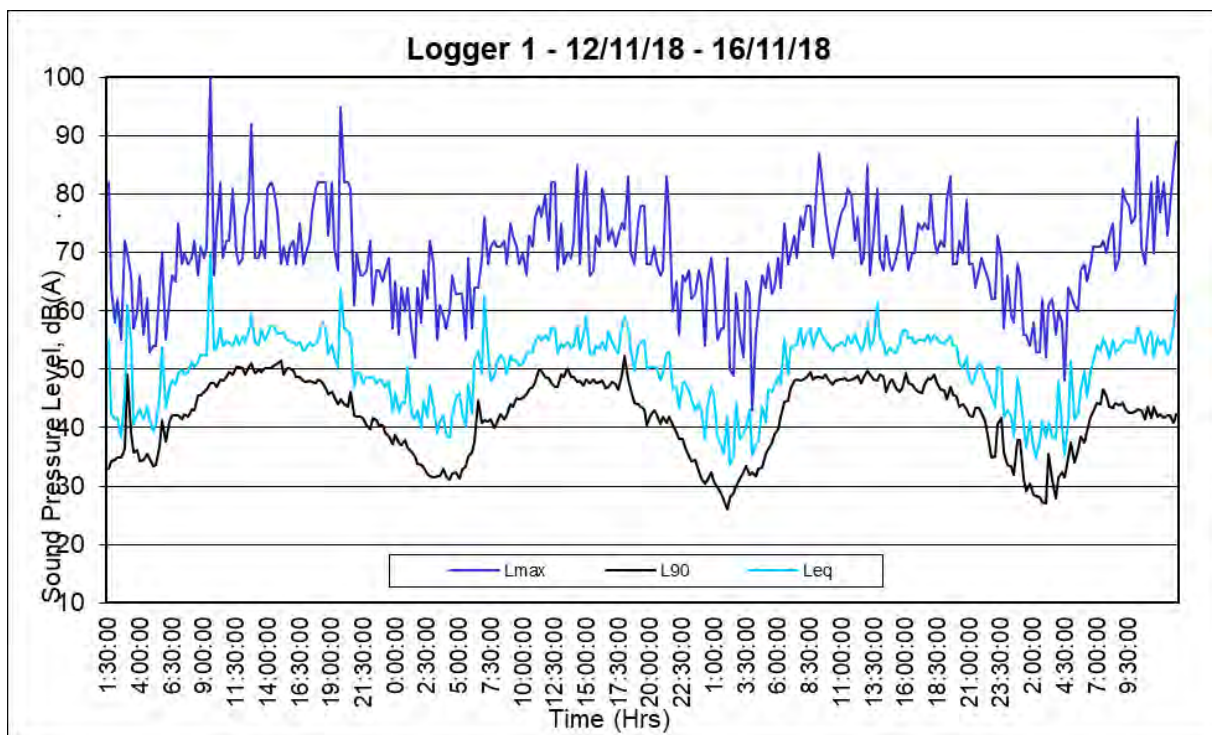
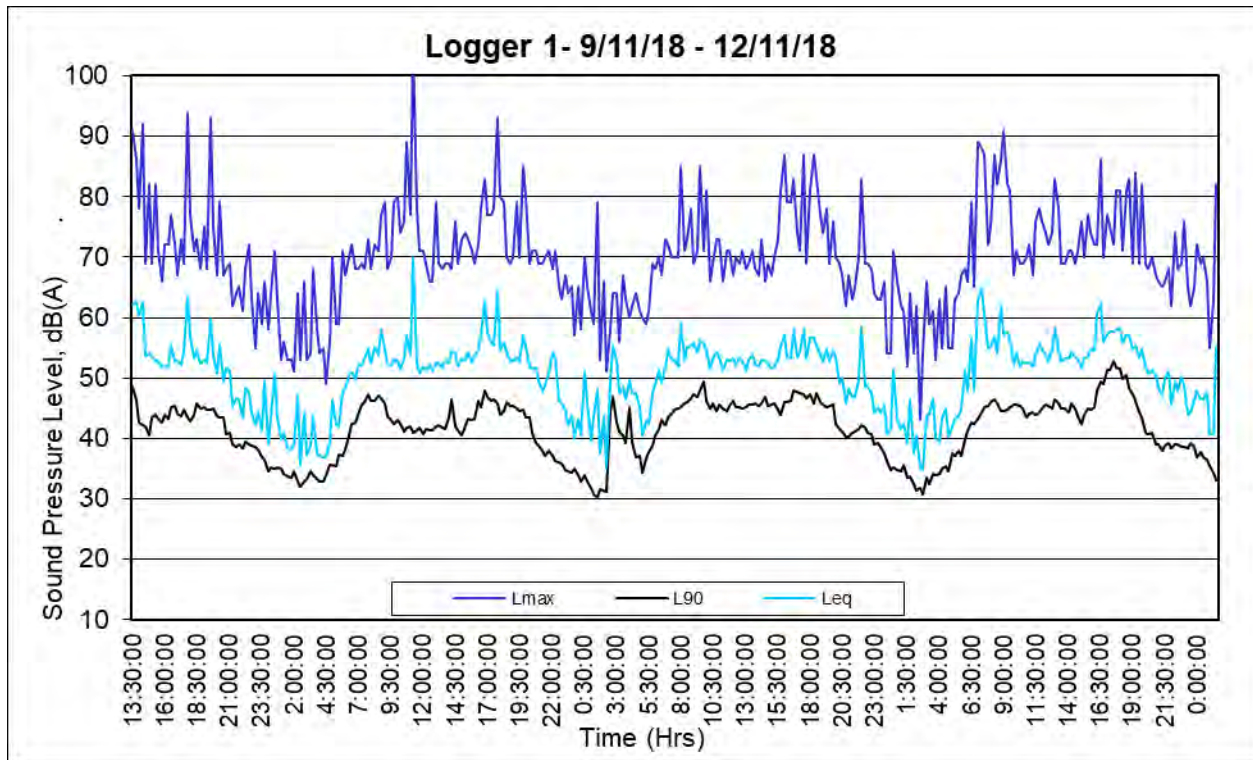
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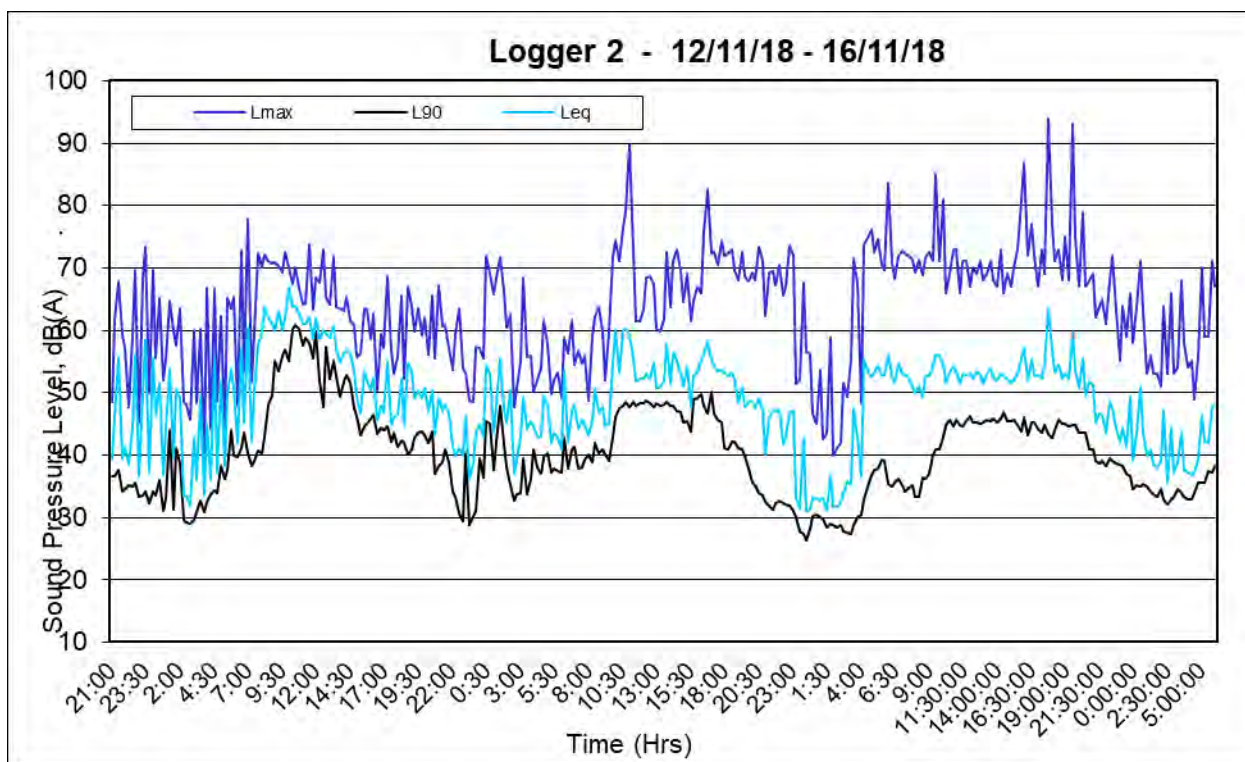
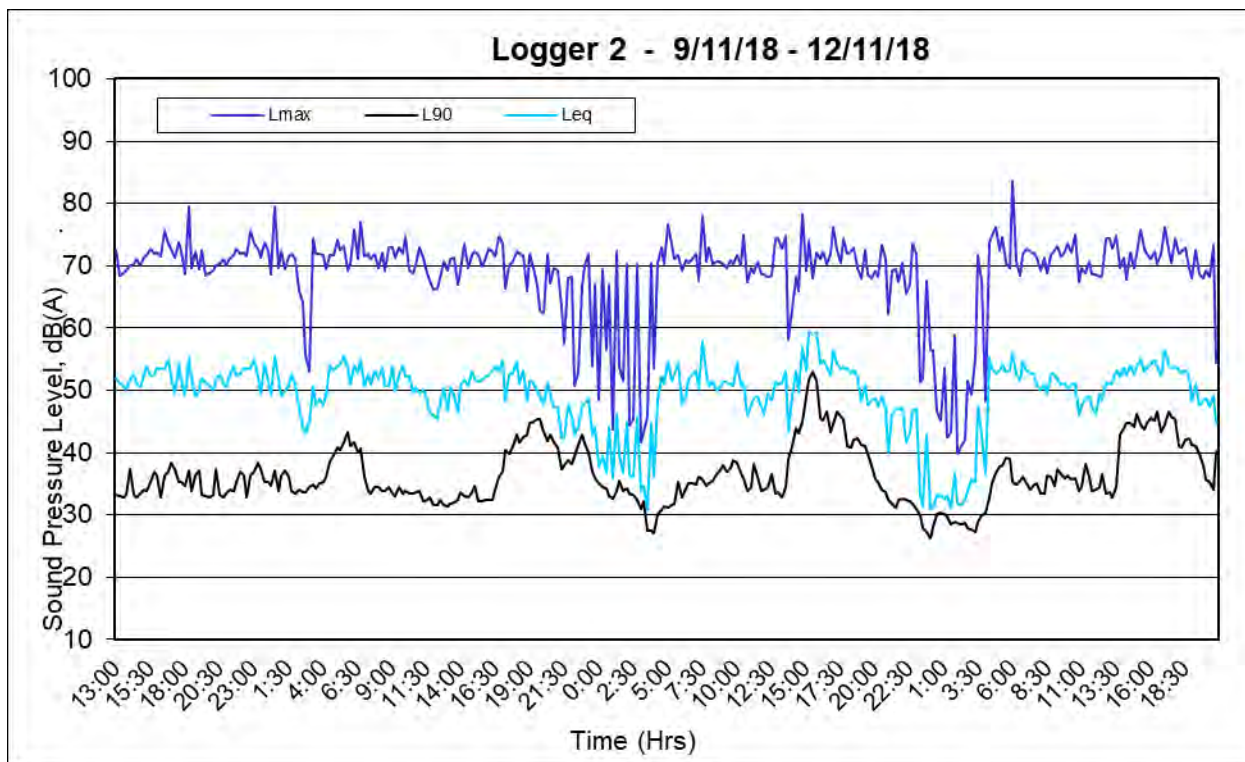
Ross Hodge
Acoustical Consultant

Review:

Neil Pennington
Acoustical Consultant

APPENDIX A
NOISE LOGGER CHARTS





Appendix 3 2018 Community Consultative Committee Meeting Minutes

Ardglen Quarry Community Consultative Committee Meeting Notes

Murrurundi Library, 10am Monday 9th April 2018

Attendees:

Shay Riley-Lewis (Independent Chairperson)

Dell Ross (Community Representative)

Megan Taylor (Community Representative)

Christine Thomson (Community Representative)

Luke Robinson (Daracon)

Paul Walker (Daracon)

1. Welcome and introductions

2. Apologies

Apologies were received from Heidi Watters (Department of Planning and Environment).

3. Confirmation of previous minutes of meeting held 11 December 2017

Minutes were confirmed.

4. Issues raised from previous minutes

▪ Access to dust gauge

LR confirmed access to the dust gauge on Lot 10 does not require access via CT's Lot 11. Vehicular access is not required.

▪ Mowing of Lot 10

LR advised a site inspection confirmed the grass was not overgrown to a level to cause any bushfire or safety concern especially given the current drought conditions.

5. Planned activities

Daracon presented an overview of the background and current status of the site's operations (refer presentation provided in [Attachments](#)).

Air monitoring results have reported levels consistently below criteria.

The Section 75W application to modify the existing consent has been lodged with the Department of Planning and Environment (DP&E). Plans remain to recommission the quarry but there is no timeframe on when that may occur. No work in the extension area



is proposed until approval of the s75W modification. The s75W includes redesign of the layout, updated environmental controls and new extraction methodology and equipment. It does not propose expansion of quarry footprint or extension of quarry life.

6. Questions

Dust monitoring

- *CT: Where is dust monitoring point EPA4 located? It shows repeated spikes in results.*

ACTION: LR to confirm the location of dust monitoring point EPA4.

- *CT: Since the quarry is in care and maintenance, the existing monitoring can be considered a baseline for establishing background levels for when the quarry restarts.*

SRL: Yes increases in dust can be expected when the quarry operates, however these will still need to be below approved criteria.

Resource

- *CT: Is there enough resource available for the proposed 15Mtonne over 30 years?*

PW: Yes there is proven resource.

Stormwater

- *CT: How does the site currently manage stormwater? There has previously been excessive silt build up at the culvert on the other side of the rail line.*

SRL: This query was raised previously and it was investigated by LR who confirmed there was no indication that sediment was leaving the quarry site. It was known that ARTC had been doing work that may have contributed to the natural accretion.

LR: There is no water discharge from the quarry. Current stormwater is managed by the onsite sediment dams. Details are provided in the Stormwater Management Plan (SWMP).

MT: Daracon cleaned the culvert of built up sediment after the significant rainfall event around December 2016.

ACTION: LR to provide copies of the Doughboy Hollow photos showing the culvert impacts that coincided with Daracon's clean up and confirmation of no runoff.

ACTION: LR to provide CCC copy of s75W application studies.

- *CT: CT pays a lease for part of the Crown Land reserve that adjoins Doughboy Hollow culvert. Daracon need to request permission to access leased land.*

LR: Acknowledged.



ACTION: CT to provide a plan showing the Crown Land lease area of Doughboy Hollow culvert.

Trucks

- *CT: Previously trucks would access the site outside approved hours. How do we know that won't happen again?*

MT: Trucks would arrive early and queue and speed.

SRL: Times have changed and approval agencies are more stringent on conditions than ever before. The CCC also provides an added avenue for enforcement with my position appointed by the Secretary of the DP&E, community raised issues relating to non-compliance can be elevated for action.

Rehabilitation

- *CT: Where is the overburden replacement and revegetation? It is an eyesore. Plans for rehabilitation need to be done, seen and actioned. Overburden needs to be returned to where it came from. Can rehabilitation start in areas not being used? Planting rows of trees would reduce visual impact.*

LR: Daracon are compliant with the approved Landscape Rehabilitation Plan.

PW: While the quarry is in care and maintenance, there are no plans to provide additional landscaping beyond what is required.

CT: Tree planting at the perimeter would reduce the impact on health, visual amenity and noise.

MT/DR: The visual, dust and noise from the quarry is not a problem. Trees would be below the rail line and ineffective.

LR: The s75W application will enable construction of a noise bund.

ACTION: LR to provide CC copy of the Landscape Rehabilitation Plan.

- *CT: Where has the overburden gone in previous years?*

DR: Overburden was place on top of the quarry and moved throughout the quarry.

- *CT: The quarry should not be storing any materials within the Travelling Stock Route (TSR) located within the quarry.*

ACTION: LR to confirm location and use of the TSR.

7. Date of next meeting

The community representatives agreed that it is preferred to not meet again until there is new information to discuss. The Chair will contact the Department of Planning and



Environment to check the status of the modification application. A meeting will be scheduled to enable discussion of the specialist studies prior to approval.

Next meeting to be confirmed. Community representatives advised Mondays suit for meeting.

8. Pecuniary Interests

SRL advised she has been engaged by Daracon and RMS to undertake community engagement for the Scone Bypass Project. The CCC agreed to leave the CCC as is and unless a conflict arises.

ACTION: SRL to contact DP&E to advise of the new pecuniary interest.

9. Scone Bypass

SRL: Daracon have been awarded the construction contract for the Scone Bypass.

PW: Daracon have a list of five preferred sources of material to use for the project that does not include Ardglen. Other locations provide greater efficiency and access, however the use of material from Ardglen Quarry for the Scone Bypass has not been completely eliminated.

Meeting Closed at 11:00am.

Attachments:

Daracon presentation



Ardglen Quarry Community Consultative Committee Meeting Notes

Murrurundi Library, 10:30am Tuesday 16th October 2018

Attendees:

Shay Riley-Lewis (Independent Chairperson)

Luke Robinson (Daracon)

Dell Ross (Community Representative)

Megan Taylor (Community Representative)

Bill Avery (Community Representative)

1. Welcome and introductions

2. Apologies

Apologies were received from Christine Thomson (Community Representative), Paul Walker (Daracon Quarries Manager) and Alice Elsley Liverpool Plains Shire Council (LPSC).

3. Confirmation of previous minutes of meeting held 20 July 2018

Minutes were confirmed.

4. Issues raised from previous minutes

- LR to email electronic version of photos to CT

Completed and uploaded to drop box.

- SRL to set up an Ardglen CCC dropbox to upload relevant project information including the Landscape Plan, presentation material, meeting notes, consents and applications.

Completed.

- AE to provide a map of the TSR location within the quarry

Completed and uploaded to dropbox.

- AE to provide Council's response direct to Stuart Murray who is coordinating the s75W with the DoP.

Completed.

- SRL to advise DoP of the CCC's vote on retaining the existing Chair as one vote for no and five for yes.

Completed.

5. Planned activities

There remains approximately 6-8 months of carting for the Scone project.

6. Section 75W modification

Proposal includes (see [Attachment 1](#)):

- increase truck movements to 100%, replacing the 50% rail portion
- constructing noise bunds
- change surface water management

Traffic

- 500,000 tonne per year exported
- Drivers code of conduct and vehicle maintenance plan
- Assessment by traffic consultant SECA determined the modification will have an acceptable impact on the local road network and safety

Noise

- Existing fixed plant is no longer viable and will be demolished
- Mobile crushing plant to be used instead
- Noise bund wall will be built around the new crushing pad area
- Existing high wall on the western edge of the existing pit is to be retained during future work in the extension area to block noise to the village.
- Noise modelling identifies exceedance of criteria at selected dwellings. The modified arrangement includes 'reasonable and feasible' mitigation measures (EPA Industrial Noise Policy).

DR: Noise has never been a problem. Rail loading was the noisiest part.

MT: Noisiest was start-up of the old crusher. Rail noise is worse than ever since ARTC did track work.

BA: Never notice the train noise.

LR: Noise impacts are subjective and what might bother one person is not noticed by another.

Water

- Existing basin will be expanded
- Relocated drainage pit
- EPL will be modified to include discharge requirements
- Excavate in-pit sump



DP&E were contacted by a person requesting pedestrian access over the rail bridge access to the quarry during trucking.

MT: Train spotters the likely users of the bridge. Not a high pedestrian area.

7. Questions

Q (BA): who has been undertaking the road inspections?

LR: A 'road safety audit' has been undertaken as part of the existing consent for the extension area. Department of Planning and Environment (DP&E) have requested be conducted now since the site is out of care and maintenance and operating again.

Draft audit is with RMS and LPSC who will provide comment and actions for specific changes to the haul road.

Q (MT): Three Daracon trucks have been speeding along the access road and can be heard.

LR: Please contact me or the gatehouse when you hear/see the speeding trucks so we can identify the drivers and reprimand.

ACTION: MT to advise registration/identification of offending drivers.

Q (BA): How many trucks will there be per day?

LR: Consent currently allows 27.5 truck loads per day (i.e. 55 truck movements per day). The modification assessed and average of 57 laden trucks per day (i.e. 114 truck movements per day).

Q (MT): Why are the trucks stopping half way through the day?

LR: Fatigue rules may force the stop in work. Alternatively, site requirements at Scone may cause the stop while the project waits for lab results before continuing to load.

Q (DR): How are the current onsite noise monitor results?

LR: results good – all within criteria.

Q (BA): Marsupial boxes still there?

LR: Still there and checked regularly by consultant.

Q (BA): When will blasting start?



LR: Plan to wait until the s75W is determined before extending activities into the approved area. The existing consent allows work into the extension area provided a series of actions are completed.

Daracon will advise the CCC before any blasting or crushing is to occur. Lots of work required before quarrying can recommence.

ACTION: Daracon advise CCC before any blasting or crushing to occur.

Q (MT): What is being done with the vacant Daracon house? It's in disrepair.

ACTION: LR to arrange tidy up of vacant Daracon properties.

8. Date of next meeting

Next meeting is scheduled for 10:30am Tuesday 9th April 2019.

Post meeting note – Crown Lands representative has requested to be invited to future CCC meetings.

Meeting Closed at 12:00pm.

Attachments:







Daracon presentation

Appendix 4 2018 Community Complaints Register






<i>Date received</i>	<i>Complaint was received regarding?</i>	<i>Complaint was received from?</i>	<i>Buttai Gravel response</i>	<i>Buttai Gravel action following complaint</i>	<i>Closed out (Y/N)</i>
24/10/18	A complaint was received alleging excessive truck speed through the township of Ardglenn.	A member of the community via the NSW Department of Planning and Environment (DPE)	Introduced a mandatory self-imposed speed limit of 40kph through the township of Ardglenn for all trucks	This matter was appropriately addressed and closed in consultation with the DPE	Y
14/11/18	A complaint was received querying a number of matters associated with the Community Consultation Committee (CCC)	A member of the community via the NSW Department of Planning and Environment (DPE)	Buttai Gravel and PEP Consulting undertook additional consultation with the community and CCC members and provided justification and explanation to the DPE regarding the matters raised	These matters were appropriately addressed and closed in consultation with the CCC and DPE	Y

Appendix 5 Rubicon (formerly TREES) Erosion & Sediment Control Inspection Report





Inspection Report – Daracon Group

CLIENT	Daracon Group	REPORT DATE	16 July 2018	REPORT NO.	2	REPORT TO:	Luke Robinson, Jason Gorton – Daracon Group
PROJECT	Ardglen Quarry	INSPECTION DATE	16 July 2018	ATTENDEES:	Luke Robinson – Daracon Group, Andrew Littlewood – Rubicon Enviro		
WEATHER	Cool, Overcast, Light winds	COMMENT	The quarry remains dormant with no extractive activities or processing occurring. Minor maintenance activities such as stockpile relocation and desilting drainage lines has been recently undertaken. No significant issues with drainage or erosion and sediment control were noted. Weed suppression has been effective across most areas, with no additional outbreaks noted.				
ISSUE NO.	LOCATION	ISSUE/MATTER	RECOMMENDATION/COMMENT			PHOTOGRAPH	
1.	Entrance road.	As noted above, drainage lines around the site office, entrance road and lower rail siding areas have been desilted and cleared.	Continue to monitor and maintain drainage lines to ensure run-off is directed to control dams and infiltration areas. Ongoing - Ok 				
2.	Entrance road.	An earthen control bund has been formed along the toe of an exposed rock batter to control errant rock.	As discussed, we recommend forming a stabilised spillway at the downslope end of the bund to control spill flows in major rain events Wheelwash now installed and water directed appropriately - Ok 				
3.	Lube shed and fuel storage area.	The lube shed area remains secure and dormant with adequate bund storage and controls. Ponded water in the surrounding areas was clear and no oil sheens were present.	Continue maintain the area and visually monitor water quality in the surrounding areas. Ongoing - Ok 				

Inspection Report – Daracon Group

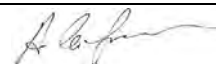
PROJECT:	Ardglen Quarry	INSPECTION REPORT NO.	2	INSPECTION DATE	16 July 2018
4.	Weed control - general	As noted above, weed suppression has been effective across most areas, with no additional outbreaks noted.	Continue to monitor the workings and perimeter areas and implement periodic weed control as required. Ongoing weed spraying occurring - Ok		
5.	Southern Void Dam	Due to ongoing dry conditions the southern void dam water level has fallen and drainage lines continue to capture and divert run-off to the dam.	No action required.		
6.	Warra Street rail siding area.	Various stockpiles in the area have been reworked and the control bund along the rail siding road have been trimmed and topsoiled.	As discussed, the control bund should be seeded to establish vegetative cover, however, we recommend delaying seeding until a prolonged rainfall event increases soil moisture levels to promote germination and early growth. Ongoing weed spraying occurring - Ok		

Inspection Report – Daracon Group

PROJECT:	Ardglen Quarry	INSPECTION REPORT NO.	2	INSPECTION DATE	16 July 2018
7.	Warra Street rail siding area.	The stockpile area has been partially re-worked and destocked. The weed outbreaks in the area have died back substantially.	Continue to monitor the area and implement control measures for stockpile reform (see below) and ongoing weed control. Ongoing weed control and stockpile management occurring as required		
8.	Warra Street rail siding area.	As noted above, the stockpile area has been reworked and a stand of sediment has been installed downslope from the stockpile area.	We noted the downslope end of the sediment fence was positioned so that run-off could flow past the end of the sediment fence. As discussed, the section of sediment fence should be repositioned upslope or the flow path blocked with a filter bag arrangement. Complete - Ok		

Report by: Andrew Littlewood – Senior Soil Conservationist & CPESC No. 5988

Signed :



Date: 16 July 2018

Appendix 6 Nesting Box Inspections - Ardglen Quarry

Nesting Box Inspection Ardglen Quarry - Ardglen

Kendall & Kendall Ecological Consultants

December 2018

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Nesting Box Inspection Ardglen Quarry - Ardglen

Prepared for: Daracon

Prepared by: Kendall & Kendall
 PO Box 196
 WEST KEMPSEY NSW 2440

Tel: 0428295640
Email: kendall@midcoast.com.au

December 2018

This short report provides details of the inspection of 27 nesting boxes installed on Lot 187 DP 751028 at the Ardglen Quarry approximately 6km northwest of Murrurundi.

The author of this report is

K. R. Kendall,

Principal Zoologist and Fauna Ecologist,

Kendall & Kendall Ecological Services Pty Ltd,

whose qualification is B.A. (Biological Sciences) Macquarie University

Ms. Penny Kendall assisted in the inspection of the nesting boxes.

A handwritten signature in black ink, appearing to read 'Keith Kendall', is written over a faint, light-colored circular stamp or watermark.

Keith Kendall

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1. INTRODUCTION

This short report provides details of the inspection of nesting boxes at Ardglen Quarry on 20th November 2018. The nesting boxes had been installed in April 2012 on Lot 187 DP 751028 an “offset” site identified in the Landscape Management Plan produced as part of the environmental assessment for the extension of quarry activities at the Ardglen Quarry. Ardglen Quarry is approximately 6kms northwest of Murrurundi. It is a requirement of the plan that annual springtime inspections of the nesting boxes are conducted for the life of the quarry.

2. NESTING BOXES INSPECTION

Twenty-seven 27 nest boxes (ie. 9 microbat boxes, 9 Brush-tailed Phascogale boxes and 9 Squirrel Glider boxes) were inspected using a camera on a pole with a wireless screen.

There was no evidence that feral species (including honey-bees) had been using the nesting boxes.

A number of squirrel glider and phascogale boxes contained leaves and/or bark some with a nesting depression indicating use by vertebrate species. It is suspected that the species responsible was the sugar glider as this species has been observed during previous inspections.

One box contained three eastern rosella eggs, the parent bird was observed leaving the box.

A metal numbered tag was nailed to each tree in which a box had been installed to assist in finding their location in the future (Appendix 1).

3. RECOMMENDATIONS

No recommendation regarding further action is considered necessary as a result of the inspection.

Due to the retirement of Keith Kendall, Kendall & Kendall Ecological Services Pty Ltd will no longer be able to conduct the annual inspections, it is recommended that Dr. Anna McConville be engaged to conduct future inspections as she has taken over similar jobs from Kendall & Kendall, possesses the necessary skills & equipment to conduct the work and has an established working relationship with Keith Kendall. Her Contact details are:

- Phone - 0423801779;
- Email - anna@echoecology.com.au:

A handwritten signature in black ink, appearing to read 'Keith Kendall', is written over a faint, light blue circular stamp.

Keith Kendall

27/11/2017

APPENDIX 1

Tag No. (last digit)	Box Type	Tree Species	Comment	Easting (GDA)	Northing (GDA)
1	Phascogale	Box	No evidence of use observed	289197	6486313
2	Squirrel Glider	Box	Old leaves in box	289143	6486257
3	Microbat	Box	No evidence of use observed	289138	6486251
4	Phascogale	Box	Old leaves in box with depression	289166	6486215
5	Squirrel Glider	Box	No evidence of use observed	289173	6486198
6	Microbat	Box	No evidence of use observed	289179	6486190
7	Phascogale	Box	Leaves	289178	6486160
8	Squirrel Glider	Box	Old leaves in box with depression	289156	6486117
9	Microbat	Box	No evidence of use observed	289156	6486117
0	Microbat	Box	No evidence of use observed	289164	6486113
1	Phascogale	Box	Leaves with depression	289163	6486074
4	Squirrel Glider	Box	No evidence of use observed	289033	6486164
3	Microbat	Box	No evidence of use observed	289030	6486110
5	Phascogale	Gum	Eastern Rosella on three eggs	289036	6486160

Tag No. (last digit)	Box Type	Tree Species	Comment	Easting (GDA)	Northing (GDA)
6	Squirrel Glider	Box	No evidence of use observed	289020	6486159
7	Microbat	Box	No evidence of use observed	289020	6486159
8	Squirrel Glider	Box	Old leaves in box small birds egg	289053	6486221
9	Squirrel Glider	Box	Old leaves in box	289053	6486221
0	Microbat	Box	No evidence of use observed	289096	6486245
1	Phascogale	Gum	Old leaves in box	289070	6486263
2	Squirrel Glider	Box	No evidence of use observed	289055	6486254
3	Microbat	Box	No evidence of use observed	289046	6486284
4	Phascogale	Box	No evidence of use observed	289030	6486316
5	Squirrel Glider	Box	Leaves and bark in box	289034	6486320
6	Microbat	Box	No evidence of use observed	289064	6486322
7	Phascogale	Box	Old leaves in box	289100	6486328
8	Squirrel Glider	Box	Old leaves in box	289089	6486322

Appendix 7 Waste Register

FORM: WASTE MANAGEMENT RECORD

REPORT REFERENCE NO. : ...BAR – 18 Ardglan Quarry.....

This form to be completed weekly by the Project Manager, or designee, to record volumes of waste material generated on site and its method of disposal.

PERIOD: 01 / 01 / 18 TO 31 / 12 / 18

WASTE MATERIAL	LOCATION OF SOURCE	QUANTITY	RECYCLED/DISPOSAL LOCATION	METHOD OF RECYCLING OR DISPOSAL
TIMBER	N/A	Nil		
CONCRETE	N/A	Nil		
ASPHALT	N/A	Nil		
SURPLUS TOPSOIL	N/A	Nil		
SURPLUS FILL	N/A	Nil		
DICL PIPE	N/A	Nil		
OILS / GREASES	N/A	Nil		
GLASS	N/A	Nil		
PAPER	N/A	Nil		
STEEL	N/A	Nil		
BRICKS	N/A	Nil		
ROCK	N/A	Nil		
PLASTERBOARD	N/A	Nil		
METALS	N/A	Nil		

FORM: WASTE MANAGEMENT RECORD

WASTE MATERIAL	LOCATION OF SOURCE	QUANTITY	RECYCLED/DISPOSAL LOCATION	METHOD OF RECYCLING OR DISPOSAL
BLOCKS	N/A	Nil		
MULCH	N/A	Nil		
PUTRESCIBLE (CO-MINGLED)	Ardglen quarry	5 T	As detailed in the disposal docket – Muswellbrook Waste and Recycling Facility (MSC) And one service of the 3.0 cubic metre waste bin by Cleanaway	To an authorised waste disposal facility
TYRES	Ardglen quarry	1 x earthmoving tyre 1 x light vehicle tyre	As detailed in the disposal docket – Muswellbrook Waste and Recycling Facility (MSC)	To an authorised waste disposal facility
HAZARDOUS WASTE				
ASBESTOS		Nil		
ACID SULFATE		Nil		
HYDROCARBON (BTEX, Coal Tar etc)		Nil		

Project Manager	Signature	Date
Paul Walker	pp 	31 / 12 / 18

Copy to client

☐ YES

☒ NO



muswellbrook shire council

Delivery Docket

Muswellbrook Waste And Recycling Fa
Coal Rd
Muswellbrook 2333

Phone: 0265425706

ABN: 86864180944

Ticket No: 10019118-MSCL

Time In: 29/08/2018 10:28:30 AM
Time Out: 29/08/2018 10:28:30 AM

Vehicle Rego: AY89XL

Client: Remondis

Each Items	Qty
2451.0813.826-02	1
Tyre - Earthmoving Each:	

2451.0813.826-06	1
Tyre on Rim - Ligh Each:	

Unit Cost: NA

Council Fee:
Each Items:
EPA Levy:
GST :

Total Price:

Payments:
ACCOUNT
Total Amount Tendered:
Change Given:

Driver:

Operator: Louise

Found in load after leaving



muswellbrook shire council

Delivery Docket

Muswellbrook Waste And Recycling Fa
Coal Rd
Muswellbrook 2333

Phone: 0265425706

ABN: 86864180944

Ticket No: 10019114-MSCL

Time In: 29/08/2018 9:45:15 AM
Time Out: 29/08/2018 9:55:03 AM

Vehicle Rego: AY89XL

Client: Remondis
Order Number: Daracon Ardglen

Weighted Waste	Price
Mixed Waste Commercial	
Rate Per tonne (\$/t)	

Each Items	Qty	Price
------------	-----	-------

GROSS Weight:	18.88t
TARE Weight:	16.14t
NET Weight:	2.74t

Chargeable Weight:	2.74t
Each Item Weight:	0.00t
Rate Per tonne (\$/t)	

Council Fee:

Each Items:

EPA Levy:

GST :

Total Price:

Payments:

ACCOUNT

Total Amount Tendered:

Change Given:

Driver:

Operator: Louise

Appendix 8 Independent Environmental Audit

Ann Hagerthy
Senior Compliance Officer
Planning Services
Suite 14, Level 1, 1 Civic Ave
PO Box 3145
Singleton NSW 2330

April 2nd 2019

To Ann,

RE: Buttai Gravel, Ardglen Quarry Independent Environmental Audit

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GUNNEDAH

21 Martin Road, Gunnedah NSW 2380
PO Box 767 Gunnedah NSW 2380
P 02 6742 4977

Further to correspondence received from the NSW Department of Planning and Environment (DPE) dated 5th March 2019 regarding the Ardglen Quarry Independent Environmental Audit (IEA) undertaken by Pitt and Sherry, please find below an updated response to audit recommendations including the revised IEA report (Attachment 1).

Additionally, and in accordance with the Project Approval 06_0624, we have summarised Daracon's proposed actions to the Non Compliances (NC) and Observations (O) raised in the IEA report in Table 1 and Table 2 below.

Table 1 – Proposed actions to all items raised in the revised IEA

IEA report identification number	Condition	Description of non-compliance and recommendation	Daracon proposed action detailed in correspondence dated 12 th October 2018	Commentary and status as at 2 nd April 2019
NC 1	Sch. 3. Cl. 6	As per the DPE's response (31 May 2018) to the Ardglen Quarry 2017 AEMR review, noise monitoring had not been conducted quarterly. Daracon had failed to undertake quarterly noise monitoring as noted in the Noise Monitoring Program. <u>Recommendation:</u> Ensure that all actions, including monitoring, specified in the Noise Monitoring Program are fully implemented.	Daracon has engaged an acoustic consultant to implement a quarterly noise monitoring regime. The August 2018 noise monitoring report was included in the updated Noise Management Plan. Results from the August 2018 monitoring campaign showed that Ardglen Quarry was compliant with the relevant noise criteria at all monitoring locations.	Action 1 Complete - Quarterly noise monitoring continues to occur in accordance with the consent. The relevant details are contained within the AEMR.
NC 2	Sch. 3. Cl. 24	As per AEMR section 2.11, there was no specific rehabilitation during the audit period apart from targeted weed control and ongoing maintenance of offset areas. There has been no progressive rehabilitation undertaken on the site. <u>Recommendation:</u> Progressive rehabilitation should be undertaken as per Appendix 2 of the consent.	Refer to action for NC4 regarding the revision of the Rehabilitation and Biodiversity Offset Management. The status of rehabilitation will be included in future Annual Reviews to be prepared for the site.	Action 2 In progress - Further rehabilitation work will be detailed in the updated Landscape and Rehabilitation Management Plan (LMP) for the site and performance will be reported in the Annual Review. A status update will be provided within the 2018 AEMR which will be submitted prior to the 23 rd April 2019.

NC 3	Sch. 3. Cl. 26; SoC 8	<p>Section 4.9 of the plan shows commitment to "securing the long term security of the offset sites by November 2011 through a Voluntary Conservation Agreement with the NSW Minister of Environment, DECCW or via other mechanisms". Daracon has not provided long term security for the off-set areas as per the stipulated timeframe. They are in the process of applying for section 88B [Conveyance Act 1919] instrument to create an easement over the offset areas to protect those areas.</p> <p><u>Recommendation:</u> The application for easements over the off-set areas should be submitted as soon as practical.</p>	<p>The application for easements over the off-set areas has been submitted via a Section 88b process.</p> <p>Attachment 1 includes a copy of the first approved "Certificate of Title" whilst Daracon are still awaiting confirmation that remaining Certificate has been finalised. Once confirmation has been received, Daracon will notify the DPE of the outcome.</p>	<p>Action 3</p> <p>In progress - Following further consultation with DPE, the security of offset process changed substantially. Daracon has engaged an accredited biodiversity assessor to advise on the Biodiversity Assessment Method (BAM) regarding the Biodiversity Stewardship Site Assessment process. Further detail to be provided within the 2018 AEMR which will be submitted prior to the 23rd April 2019.</p>
NC 4	Sch. 3 Cl. 29(d)	<p>Environmental Management Strategy (EMS) Ver.3 for Ardglen Quarry Extension Major Project 06/0264 prepared by Orogen, dated September 2010. Section 4 of the Landscape Management Plan (Appendix I in EMS) details Rehabilitation and Biodiversity Offset Management Plan. The landscape management plan which includes the Rehabilitation and Biodiversity Management Plan, while addressing the relevant requirements for this clause in various sub-sections, is not clear on the five-year plan.</p> <p><u>Recommendation:</u> Revise the Rehabilitation and Biodiversity Offset Management plan to address this requirement by developing five-year plan with clear procedures.</p>	<p>Daracon are in the process of engaging a suitably qualified person for DPE approval to undertake the revision of the Landscape Management Plan (LMP) to address the requirements of this audit.</p> <p>Daracon will submit details of a suitably qualified person to complete the LMP update by 2 November 2018 with the timeframe for the submission of the LMP to be detailed at that time.</p>	<p>Action 4</p> <p>In progress - Daracon and Umwelt are finalising the updated Landscape and Rehabilitation Management Plan for the site. A status update will be provided within the 2018 AEMR which will be submitted prior to the 23rd April 2019.</p>
NC 5	Sch. 3 Cl. 29(h)	<p>Section 4.2.2 of the Landscape Management Plan (section 4 Rehabilitation and Biodiversity Offset Management Plan / Strategy) states that Daracon Quarries will be responsible for ensuring implementation, monitoring and review of this plan. Roles and responsibilities are not clear.</p> <p><u>Recommendation:</u> Revise the Rehabilitation and Biodiversity Offset Management plan to address this requirement including clear roles and responsibilities for implementing the Rehabilitation and Biodiversity Offset Management Plan.</p>	Refer to NC4.	Refer to Action 4.
NC 6	SoC 6	<p>The three off-set areas have been established and are described in the Off-set strategy. The Auditor viewed the off-set area in Lot 187 and while the presence of nest boxes was observed, no evidence of placement of logs and rocks, or the planting of EEC trees was sighted. It was also noted that while the area was fenced, that small grazing animals, such as goats (that are present on the site) would be able to move under the fence in at least one location.</p>	<p>In revising the LMP (refer to NC4), Daracon will develop detailed performance indicators and criteria as well as a suitable monitoring program to assess the ecological health of offset areas. The revised LMP will detail a monitoring program and program of</p>	Refer to Action 4.

		<u>Recommendation:</u> Undertake an audit of all off-set areas as required and prepare a program of works to implement the Strategy.	works to be undertaken in existing offset areas.	
NC 7	SoC 8	<p>Section 4.9 of the plan shows commitment to "securing the long term security of the offset sites by November 2011 through a Voluntary Conservation Agreement with the NSW Minister of Environment, DECCW or via other mechanisms". Daracon has not provided long term security for the off-set areas as per the stipulated timeframe. They are in the process of applying for section 88B [Conveyance Act 1919] instrument to create an easement over the offset areas to protect those areas. The Auditor sighted the application for the easement and understands that the application had yet to be submitted at the time of reporting.</p> <p><u>Recommendation:</u> The application for easements over the off-set areas should be submitted as soon as practical.</p>	Refer to NC3.	Refer to Action 3.
NC 8	SoC 12	<p>At the site audit, the Auditors observed that the following requirements have been met:</p> <ul style="list-style-type: none"> * Sealing of haul road * covering of all loads leaving the site * operational wheel wash at the end of unpaved section within the site * wet suppression of static stockpiles with recycled water from the wheel wash system <p>The approved revised Traffic and Transportation Management Plan address:</p> <ul style="list-style-type: none"> * limiting speed limit on unpaved surfaces to 15km/hr * covering of all loads leaving the site. <p>Revegetation of exposed surfaces has not been undertaken - progressive rehabilitation of the site has not been undertaken.</p> <p><u>Recommendation:</u> Plan and undertake progressive rehabilitation of the site including revegetation of exposed surfaces where possible.</p>	Refer to NC4. Further, rehabilitation works proposed to be undertaken will be detailed in the LMP and performance will be reported in the Annual Review.	Refer to Action 2.
NC 9	SoC 15	<p>Re-vegetation of exposed surfaces has not been undertaken - progressive rehabilitation of the site has not been undertaken.</p> <p><u>Recommendation:</u> Plan and undertake progressive rehabilitation of the site including revegetation of exposed surfaces where possible.</p>	Refer to NC8.	Refer to Action 2.
NC 10	SoC 20	<p>Progressive rehabilitation and revegetation of the site has not been undertaken.</p> <p>Planting along the ridgeline to the west of the Extension Area has not been undertaken.</p> <p><u>Recommendation:</u> Plan and undertake progressive rehabilitation of the site including revegetation of exposed surfaces where possible.</p> <p>Planting along the ridgeline to the west</p>	Refer to NC4. Planting along the ridgeline to the west of the Extension Area will be addressed within the revised LMP.	Refer to Action 2.

		of Extension Area should be undertaken and included in the Rehabilitation Plan		
NC 11	EPL M2.1 M2.2	<p>The EPL requires only the monitoring of dust by Sampling Method AM-10 (Dust Deposition Gauges). Monitoring is required at three locations (Points 2, 3 and 4). The sampling method used meets the EPL requirements. The lack of monthly monitoring is a breach of this licence condition.</p> <p>Recommendation: Ensure that dust deposition gauges are checked regularly for loss or damage and that dust monitoring is undertaken every month.</p> <p><u>Recommendation:</u> Ensure the version of the EPL used by Daracon matches that on the EPA's EPL database in version number and contents.</p>	The Ardglan Quarry Environment Protection Licence (EPL 1115) has been updated to ensure the current version is available on site.	<p>Action 5</p> <p>Complete - The Ardglan Quarry Environment Protection Licence (EPL 1115) has been updated to ensure the current version is available on site.</p>
O 1	Sch. 3 Cl. 2 And SoC 10	<p>Following an inspection of the site by DPE in their letter to Daracon dated 11 July 2018, DPE noted that the quarterly noise monitoring required by the Daracon's Noise Monitoring Program had not been undertaken. The Auditor understands that annual noise monitoring was, however undertaken. It is the Auditor's opinion that during the care and maintenance period that an exceedance of the noise criteria would be unlikely as no fixed equipment or heavy plant were being operated. However, the lack of monitoring data prevents verification of that opinion.</p> <p><u>Recommendation:</u> Undertake noise monitoring and reporting as required.</p>	Refer to NC1	Refer to Action 1.
O 2	Sch. 3. Cl 15	<p>The 2016 AEMR notes that the dust gauge 3 funnel had been stolen with no data collected during Jan-Apr 2016. There has been an exceedance - eg Feb 2016 dust gauge measurements indicating 6.4g/m2 where maximum is 4g/m2 at the D3 dust gauge. This is an exceedance as per Table 10: Long term impact assessment criteria for deposited dust. The breakup of the result was Ash 2.7g/m2 and Combustible Matter 3.7g/m2. The matter was investigated and found that a whipper snipper used for vegetation removal during dry weather had caused air borne dust at the same time the HVAS filters were being changed. Preventive action to review use of mechanical aids to control vegetation growth around dust gauges and use of non-mechanical aids were proposed. An observation is raised as this matter was not recorded in the 2016 AEMR.</p> <p><u>Recommendation:</u> Daracon should continue dust monitoring and undertake remedial measures as proposed to manage exceedances. Continue to implement proposal to use non-</p>	An Air Quality Management Plan has been prepared for the site which includes a monitoring program and compliance protocol. Daracon will continue to undertake dust monitoring on site including remedial measures to manage exceedances as required.	<p>Action 6</p> <p>Complete - Daracon will continue to undertake dust monitoring on site including remedial measures to manage exceedances as required.</p>

		mechanical aid to clear vegetation near dust gauges and also to avoid changing of dust gauge filters if there is potential for dust disturbance nearby.		
O 3	Sch. 3. Cl. 29 (f)	Performance monitoring measures are noted within Table 4.1 of the Landscape Management Plan (section 4 Rehabilitation and Biodiversity Offset Management Plan / Strategy however this does not give detailed descriptions. <u>Recommendation:</u> Revise the Landscape Management Plan to include a detailed description of how the performance of the rehabilitation of the site and implementation of the Biodiversity Offset Strategy and Doughboy Hollow Creek Rehabilitation Strategy would be monitored over time to achieve the relevant objectives and completion criteria.	Refer to NC4.	Refer to Action 4.
O 4	Sch. 3 Cl. 46	Daracon reports greenhouse gas emissions associated with the project in their NGERS reporting however ways to reduce emissions generated by Ardglen Quarry project and other details are not provided in the AEMRs. <u>Recommendation:</u> Daracon should include emissions reduction considerations and other details relevant to Ardglen Quarry in the AEMRs upon recommencement of operations.	Daracon will include emissions reduction considerations and other details relevant to Ardglen Quarry in future AEMR's.	Action 7 Complete - Included in the 2018 AEMR to be submitted prior to the 23 rd April 2019.
O 5	Sch. 4 Cl. 1	In 2016, dust exceedance on 17th and 23rd April 2016 were reported to DPE. It is noted that this letter is dated 15 Mar 2016. A minor exceedance of dust criteria during February 2016 was reported to EPA via letter dated 15 Mar 2016. This has been included in the 2016 AEMR and discussed at the CCC meeting of 23 Aug 2016. The presentation made to CCC includes depositional dust gauge readings as a chart, indicating the high reading in February 2016 at monitoring station EP4. The minutes of this CCC meeting does not include a reference to the 'minor exceedance' of February 2016 rather notes that "Air monitoring results have reported levels consistently below criteria". The CCC includes four of the landowners in the immediate surroundings of the site. While the presentation to CCC in August 2016 included a chart indicating all dust measurements from May 2017 to May 2016, the chart does not include the compliance criteria and the minutes of the meeting does not refer to the dust exceedance of February 2016 as reported to EPA and DPE. <u>Recommendation:</u> Include compliance criteria level in the presentations given to CCC so that exceedances are clearly represented in the data.	Daracon will include compliance criteria level in the presentations given to CCC so that exceedances are clearly represented in the data.	Action 8 Complete - The CCC presentation has been updated to show the compliance level criteria. This will be presented to the CCC during late April or early May 2019.

O 6	Sch. 4 Cl. 3(a)	<p>The 2016 AEMR noted that the dust gauge 3 funnel had been stolen with no data collected during Jan-Apr 2016. There has been an exceedance - in Feb 2016 dust gauge measurements indicating 6.4g/m² where maximum is 4g/m² at the D3 dust gauge. Preventive action to review use of mechanical aids to control vegetation growth around dust gauges and use of non-mechanical aids were proposed. The time of the incident were not reported. An observation is raised as this matter was not reported in detail in the 2016 AEMR.</p> <p><u>Recommendation:</u> The incident report should note the date, time and nature of the exceedance/incident if possible. The AEMR should report all reportable incidents and exceedances.</p>	<p>Daracon will ensure that future incident reports will note the date, time and nature of the exceedance/incident. Reportable incidents and exceedances will be included in future AEMR's.</p>	<p>Action 9</p> <p>Complete - Current and future incident investigations will include all relevant details associated with the matter. All incidents and exceedances will be included in future AEMR's.</p>
Not triggered remark #1	Sch 3 Cl. 19	<p><u>Recommendation:</u> Prior to commencing work in the Extension Area:</p> <p>(1) It is recommended that the retention volume of the final sedimentation basin necessary to capture surface waters (to ensure compliance with the EPL) be calculated. The calculation should take into account the area of dirty water catchment from the existing quarry and the extension area.</p> <p>(2) It is recommended that final sediment basin be surveyed to determine if it has sufficient volume to meet the volume requirements determined in (1) above.</p> <p>(3) It is recommended, that if the volume of the final sediment basin is not sufficient, that the ballast dumped in the basin, be removed to increase the basin volume to the required amount.</p>	N/A	<p>Action 10</p> <p>In progress - A revised Water Management Plan including an assessment of basin volumes is included as part of the proposed consent modification. This will be enacted prior to commencing work in the Extension Area.</p>
Not triggered remark #2	Sch 3 Cl. 21	<p><u>Recommendation:</u> The Water Management Plan be updated to include an assessment of the reliability of the water supply to the operation. This should be completed prior to the commencement of works in the Extension Area.</p>	N/A	<p>Action 11</p> <p>In progress - A revised Water Management Plan including an assessment of the reliability of the water supply to the operation is included as part of the proposed consent modification. This will be enacted prior to commencing work in the Extension Area.</p>

Not triggered remark #3	Sch 3 Cl. 22	<u>Recommendation:</u> Operational and maintenance activities on site that could cause soil erosion and sediment generation should be identified and described for in the plan.	N/A	Action 12 In progress - Operational and maintenance activities that could cause soil erosion and sediment generation will be identified and described for in the revised Water Management Plan included as part of the proposed consent modification. This will be enacted prior to commencing work in the Extension Area.
Not triggered remark #4	Sch 3 Cl. 23	<u>Recommendation:</u> The water monitoring plan should be revised to include detailed protocol for investigation, notification and mitigation of water quality exceedances. Details for procedures to manage unforeseen water quality impacts should be included in the site water management plan.	N/A	Action 13 In progress - Procedures to manage unforeseen water quality impacts are included in the updated site water management plan included as part of the proposed consent modification. This will be enacted prior to commencing work in the Extension Area.
Not triggered remark #5	Sch 3 Cl. 34	<u>Recommendation:</u> Daracon should consult DPE prior to engaging the Road Safety Audit consultant for approval. The audit should be prepared and conducted in consultation with RMS and Council.	N/A	Action 14 Complete - The Road Safety Audit (RSA) was completed in 2018 with consultation with RMS and LPSC into early 2019. The RSA report was submitted to DPE on the 18 th February 2019.
Not triggered remark #6	Sch 3 Cl. 44	<u>Recommendation:</u> Daracon should implement all practicable measures to mitigate impacts from off-site lighting upon recommencement of operations. Daracon should ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting and have the satisfaction of the Director-General on record upon recommencement of operations.	N/A	Action 15 In progress - There is currently no external lighting associated with the operation of Ardglan Quarry, however if this was to change in the future, then Daracon would ensure compliance with Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting to the satisfaction of the Director-General.
2013 IEA report #1	Sch 3 Cl. 11	<u>Recommendation:</u> Blast SWMS should be updated to ensure that appropriate communications and fly rock protection are in place for blasting a within 500 m of adjacent land. It would be wise to make this a standard provision for all blasts since much of the quarry is with 500 m of adjacent land.	N/A	Action 16 In progress - No blasting has occurred during the audit period and there are no current plans for the recommencement of blasting. The SWMS will be reviewed and updated prior to blasting and/or entering the extension area.

2013 IEA report #2	Sch 3 Cl. 20	<u>Recommendation:</u> It is recommended that surface water quality monitoring is implemented regardless of the operational status of the quarry.	N/A	Refer to Action 10.
2013 IEA report #3	Sch 3 Cl. 26	<u>Recommendation:</u> In order to secure the offset areas a VCA or similar mechanism should be implemented as soon as practicable.	N/A	Refer to Action 3.
2013 IEA report #4	Sch 3 Cl. 44	<u>Recommendation:</u> An assessment of external lighting against AS4282 (INT) 1995 is required to be submitted to the DG.	N/A	Refer to Action 15.
2013 IEA report #5	Sch 3 Cl. 47(a)	<u>Recommendation:</u> Daracon's accounting system should be used to track the waste contractors on site.	N/A	Action 17 Complete – Waste tracking documentation is completed and available.
2013 IEA report #6	Sch 4 Cl. 1	<u>Recommendation:</u> Monitoring results are to be reported to the relevant authorities/people in the required timeframes.	N/A	Refer to Action 8 and Action 9.
2013 IEA report #7	SoC 7	<u>Recommendation:</u> Daracon should consider additional measures to control wild goats as the fencing is not considered sufficient control.	N/A	Action 18 In progress - Ongoing maintenance occurs for the various offset areas including fences and gates. Consider appropriate feral animal control as required.
2013 IEA report #8	SoC 8	<u>Recommendation:</u> A VCA, or similar mechanism should be implemented as soon as practicable.	N/A	Refer to Action 3.
2013 IEA report #9	SoC 9	<u>Recommendation:</u> Blast SWMS should be updated to ensure that appropriate communications and fly rock protection are in place for blasting a within 500 m of adjacent land. It would be wise to make this a standard provision for all blasts since much of the quarry is with 500 m of adjacent land.	N/A	Refer to Action 16.

In order to succinctly summarise the various actions arising from the various items detailed in Table 1, we've included a full list of proposed actions in Table 2.

Table 2 – Summary of the proposed actions to all items raised in the revised IEA

Action number	Action description	Status
1	Ensure that all actions, including monitoring, specified in the Noise Monitoring Program are fully implemented.	Complete - Daracon has engaged an acoustic consultant to implement a quarterly noise monitoring regime. Quarterly noise monitoring continues to occur in accordance with the consent. The relevant details are contained within the AEMR.
2	Progressive rehabilitation should be undertaken as per the consent.	In progress - Further rehabilitation work is required and be detailed in the updated Landscape and Rehabilitation Management Plan. A status update will be provided within the 2018 AEMR which will be submitted prior to the 23 rd April 2019.
3	The application for easements over the off-set areas should be submitted as soon as practical.	In progress - Following further consultation with DPE, the security of offset process changed substantially. Daracon has engaged an accredited biodiversity assessor to advise on the Biodiversity Assessment Method (BAM) regarding the Biodiversity Stewardship Site Assessment process. Further detail to be provided within the 2018 AEMR which will be submitted prior to the 23 rd April 2019.
4	Revise the Rehabilitation and Biodiversity Offset Management plan to address this requirement by developing five-year plan with clear procedures.	In progress - Daracon and Umwelt are finalising the updated Landscape and Rehabilitation Management Plan for the site. A status update will be provided within the 2018 AEMR which will be submitted prior to the 23 rd April 2019.
5	Ensure the version of the EPL used by Daracon matches that on the EPA's EPL database in version number and contents.	Complete - The Ardglen Quarry Environment Protection Licence (EPL 1115) has been updated to ensure the current version is available on site.

Action number	Action description	Status
6	Daracon should continue dust monitoring and undertake remedial measures as proposed to manage exceedances.	Complete - An Air Quality Management Plan has been prepared for the site which includes a monitoring program and compliance protocol. Daracon will continue to undertake dust monitoring on site including remedial measures to manage exceedances as required.
7	Daracon should include emissions reduction considerations and other details relevant to Ardglen Quarry in the AEMRs upon recommencement of operations.	Complete - Daracon will include emissions reduction considerations and other details relevant to Ardglen Quarry in future AEMR's. Included in the 2018 AEMR to be submitted prior to the 23rd April 2019.
8	Include compliance criteria level in the presentations given to CCC so that exceedances are clearly represented in the data.	Complete - Daracon will include compliance criteria level in the presentations given to CCC so that exceedances are clearly represented in the data. The CCC presentation has been updated to show the compliance level criteria. This will be presented to the CCC during late April or early May 2019.
9	The incident report should note the date, time and nature of the exceedance/incident if possible. The AEMR should report all reportable incidents and exceedances.	Complete - Daracon will ensure that future incident reports will note the date, time and nature of the exceedance/incident. Reportable incidents and exceedances will be included in future AEMR's.
10	Prior to commencing work in the Extension Area: It is recommended that the retention volume of the final sedimentation basin necessary to capture surface waters (to ensure compliance with the EPL) be calculated. The calculation should take into account the area of dirty water catchment from the existing quarry and the extension area. It is recommended, that if the volume of the final sediment basin is not sufficient, that the ballast dumped in the basin, be removed to increase the basin volume to the required amount.	In progress - A revised Water Management Plan including an assessment of basin volumes is included as part of the proposed consent modification. This will be enacted prior to commencing work in the Extension Area.

Action number	Action description	Status
11	The Water Management Plan be updated to include an assessment of the reliability of the water supply to the operation. This should be completed prior to the commencement of works in the Extension Area.	In progress - A revised Water Management Plan including an assessment the reliability of water supply to the operation is included as part of the proposed consent modification. This will be enacted prior to commencing work in the Extension Area.
12	Operational and maintenance activities that could cause soil erosion and sediment generation will be identified and described for in the revised Water Management Plan included as part of the proposed consent modification.	In progress - Operational and maintenance activities that could cause soil erosion and sediment generation will be identified and described for in the revised Water Management Plan included as part of the proposed consent modification. This will be enacted prior to commencing work in the Extension Area.
13	The water monitoring plan should be revised to include detailed protocol for investigation, notification and mitigation of water quality exceedances.	In progress - Procedures to manage unforeseen water quality impacts are included in the updated site water management plan included as part of the proposed consent modification. This will be enacted prior to commencing work in the Extension Area.
14	Complete the The Road Safety Audit in consultation with RMS and LPSC.	Complete - The Road Safety Audit (RSA) was completed in 2018 with consultation with RMS and LPSC into early 2019. The RSA report was submitted to DPE on the 18 th February 2019.
15	Daracon should implement all practicable measures to mitigate impacts from off-site lighting upon recommencement of operations.	In progress - There is currently no external lighting associated with the operation of Ardglen Quarry, however if this was to change in the future, then Daracon would ensure compliance with Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting to the satisfaction of the Director-General.

Action number	Action description	Status
16	Blast SWMS should be updated to ensure that appropriate communications and fly rock protection are in place for blasting a within 500 m of adjacent land	In progress - No blasting has occurred during the audit period and there are no current plans for the recommencement of blasting. The SWMS will be reviewed and updated prior to blasting and/or entering the extension area
17	Daracon's accounting system should be used to track the waste contractors on site.	Complete – Waste tracking documentation is completed and available
18	Daracon should consider additional measures to control wild goats as the fencing is not considered sufficient control.	In progress - Ongoing maintenance occurs for the various offset areas including fences and gates. Consider appropriate feral animal control as required.

Should you have any further queries, please don't hesitate to contact the undersigned.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Luke Robinson', with a stylized, flowing script.

Luke Robinson
Systems Manager – Construction Materials
Buttai Gravel Pty Ltd (Daracon Quarries)
0417 481 785

Attachment 1 – Revised Pitt and Sherry IEA report

Independent Environmental Audit Ardglen Quarry (Daracon)

transport | community | mining | industrial | food & beverage | energy



Prepared for:

Daracon

Client representative:

Luke Robinson

Date:

30 March 2019
Rev 3

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Appendices

- Appendix A: Site Photographs
- Appendix B: Compliance Registers

Prepared by: 
Ken Holmes Date: 30 March 2019

Authorised by: 
Ken Holmes Date: 30 March 2019

Revision History					
Rev No.	Description	Prepared by	Reviewed by	Authorised by	Date
0	Draft Report (client)	AP	KGH	KGH	27 Sept 2018
1	Final Report (client)	AP	KGH	KGH	28 Sept 2018
2	Updated Final (client)	AP	KGH	KGH	04 Oct 2018
3	Revised (DPE Request for Additional Information)	KGH	MF	KGH	30 March 2019

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Acronyms

CCC	Community Consultative Committee
DECC	Department of Environment and Climate Change
dB	decibels
DoI	Department of Industries
DPI	Department of Planning and Infrastructure
DPE	Department of Planning and Environment
DRE	Department of Resources and Energy
EA	Environmental Assessment
EEC	Endangered Ecological Communities
EMP	Environmental Management Plan
EPA	NSW Environment Protection Authority
EPL	Environment Protection Licence
EP&A Act	Environmental Planning and Assessment Act 1979
NOW	NSW Office of Water
OEH	NSW Office of Environment and Heritage
OoW	Office of Water
SoC	Statement of Commitments
Water NSW	(formerly SCA and State Water Corporation) NSW State-owned Corporation acting as bulk water supplier and operator of rivers, dams and pipelines
WMP	Water Management Plan

Executive Summary

Pitt&sherry was engaged by Buttai Gravel Pty Ltd (Daracon Quarries), to conduct an Independent Environmental Audit (IEA) of the Ardglan Quarry, New South Wales (NSW). The IEA is required to satisfy Condition 5, Schedule 5 of the Project Approval. The audit comprised desktop documentation review, site inspection on Tuesday the 21 August 2018, further document review, interviews with personnel, consultation with EPA and Liverpool Plains Shire Council and reporting of the findings. The audit was undertaken in accordance with the scope of work described in the **pitt&sherry** Proposal (dated 5 July 2018) and in accordance with ISO 19011:2011 Guidelines for auditing management systems. Environmental performance of the project is reviewed by way of compliance with the conditions of the following regulatory approvals and provides recommendations to improve the environmental performance of the project.

- Project Approval 06_0264 including modification (MOD 1) of December 2010;
- Environment Protection Licence (EPL) No 1115; and
- Statements of Commitments included in the Project Approval.

The IEA was required in accordance with Schedule 5, Condition 5 which stipulates that the IEA be conducted prior to 31 December 2012 and every five years thereafter unless the Director-General directs otherwise. As the previous IEA was undertaken in 2013, this audit covers the period of 01 January 2014 – 21 August 2018.

Operations at the quarry were suspended in December 2012. The site has been in a care and maintenance phase until removal of previously stockpiled gravel materials began on 13 August 2018.

At the site inspection visit on 21 August 2018, the site was found to be in reasonably good condition and the operations were contained to within the site boundaries. Detailed review of documentation and interviews identified a number of compliance related issues that need to be addressed. These are outlined in the compliance section of this audit report (Table 4) and are summarised below.


In general, operational environmental management activities observed during the site inspection were being carried out in a competent manner, with some non-compliances identified by the Auditor. Those non-compliances and observations are detailed in the body of this report.

During the site inspection, non-compliances and opportunities for improvement were identified in the following areas:

- Progressive rehabilitation;
- Off-set Strategy;
- Visual Amenity; and
- Emissions (dust and noise) monitoring.

Revision 3 of this report has been prepared following a request from DPE for additional information (that was outside the scope of the original report) relating the close out of recommendations from the previous (2013) Independent Audit and implementation of Progressive Rehabilitation.

Auditor Certification

Independent Audit Certification Form	
Development Name	Ardglen Quarry Extension
Development Consent No.	06_0264
Description of Development	Buttai Gravel Pty Limited (Daracon Quarries) operates Ardglen Quarry, a hard rock quarry with a licenced capacity of 500,000 tonnes per annum. The current approval includes extension of existing quarry into adjoining properties owned by Daracon to enable additional material per addendum to be extracted for a period of up to 30 years.
Development Address	Ardglen Quarry, Warra St, Ardglen NSW 2338
Proponent	Buttai Gravel Pty Limited (Daracon Quarries)
Operator Address	20 Kullara CI (PO Box 401), Beresfield NSW 2322, Australia
Independent Audit	
Title of Audit	Ardglen Quarry Independent Environmental Audit
<p><i>I certify that I have undertaken the independent audit and prepared the contents of the attached independent audit report and to the best of my knowledge:</i></p> <ul style="list-style-type: none"> <i>The audit has been undertaken in accordance with relevant approval condition(s) and in accordance with the auditing standard AS/NZS ISO 19011:2011 and Post Approval Guidelines – Independent Audits</i> <i>The findings of the audit are reported truthfully, accurately and completely;</i> <i>I have exercised due diligence and professional judgement in conducting the audit;</i> <i>I have acted professionally, in an unbiased manner and did not allow undue influence to limit or over-ride objectivity in conducting the audit;</i> <i>I am not related to any owner or operator of the development as an employer, business partner, employee, sharing a common employer, having a contractual arrangement outside the audit, spouse, partner, sibling, parent, or child;</i> <i>I do not have any pecuniary interest in the audited development, including where there is a reasonable likelihood or expectation of financial gain or loss to me or to a person to whom I am closely related (i.e. immediate family);</i> <i>Neither I nor my employer have provided consultancy services for the audited development that were subject to this audit except as otherwise declared to the lead regulator prior to the audit; and</i> <i>I have not accepted, nor intend to accept any inducement, commission, gift or any other benefit (apart from fair payment) from any owner or operator of the development, their employees or any interested party. I have not knowingly allowed, nor intend to allow my colleagues to do so.</i> <p><i>Note.</i></p> <p><i>a) The Independent Audit is an 'environmental audit' for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.</i></p> <p><i>b) The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents—maximum penalty 2 years imprisonment or \$22,000, or both).</i></p>	
Signature	
Name of Lead/Principal Auditor	Ken Holmes
Address	4 Baeckea Place, Frenchs Forest, NSW
Email Address	kholmes@pittsh.com.au
Auditor Certification	Exemplar Global 14065
Date	30 March 2019

1. Introduction

Pitt&sherry was engaged by Buttai Gravel Pty Ltd (Daracon Quarries), to conduct an Independent Environmental Audit (IEA) of the Ardglen Quarry, New South Wales (NSW). Environmental performance of the project was assessed by the determination of compliance with the conditions of the following regulatory approvals and provides recommendations to improve the environmental performance of the project.

- Project Approval 06_0264 including modification (MOD 1) of December 2010;
- Environment Protection Licence (EPL) No 1115; and
- Statements of Commitments included in the Project Approval.

The IEA was required in accordance with Schedule 5, Condition 5 which stipulates that the IEA be conducted prior to 31 December 2012 and every five years thereafter unless the Director-General directs otherwise. As the previous IEA was undertaken in 2013, this audit covers the period of 01 January 2014 – 21 August 2018. The audit comprised desktop documentation review, site inspection on Tuesday the 21 August 2018, further document review, interviews with personnel, consultation with agencies and reporting of the findings. The audit was undertaken as per the scope of work outlined in the **pitt&sherry** Proposal (dated 5 July 2018), and in accordance with ISO 19011:2011 Guidelines for auditing management systems. It is noted that a newer version of this standard was released in July 2018 however the audit was conducted as per the 2011 version as specified in the **pitt&sherry** Proposal.

Revision 3 of this report has been prepared following a request from DPE for additional information (that was outside the scope of the original report) relating the close out of recommendations from the previous (2013) Independent Audit and implementation of Progressive Rehabilitation.

1.1 Ardglen Quarry

Buttai Gravel Pty Limited (Daracon Quarries) operates Ardglen Quarry, a hard rock quarry located near Scone in the upper Hunter Valley. The quarry is licenced to produce 500,000 tonnes of gravel per annum. The Project Approval 06_0264 and the EPL 1115 contain detailed environmental conditions with which the quarry must comply.

The Ardglen Quarry was operated by the NSW Railways for the production of rail ballast from before 1900. The quarry was purchased by Daracon around 2006 and operated under a Development Approval from Liverpool Plains Shire Council (consent DA 1/1994). As the quarry reserves were considered to be diminishing, a proposal to extend the quarry to enable up to 500,000 tonnes of material to be extracted for up to 30 years, was developed. An Environmental Assessment (EA) was prepared by ERM for the extension of quarrying operations and Approval was granted (DA 06_0264) with a five-year deferred commencement consent. A modification (MOD 1) to the Project Approval was sought to amend the timing of the development and implementation of the Environmental Management Strategy (prepared by Orogen) that included the various required monitoring programs. The MOD 1 was approved in December 2010.

The site has been in a care and maintenance phase since operations at the quarry ceased in December 2012, however limited operations at the quarry recommenced in August 2018. The current operations relate to supplying stockpiled scalps and fill material (gravel) to the Scone Bypass Project until October 2019. There will be no blasting, extraction, crushing activities and any works in the extension area undertaken. The following activities were being undertaken at the time audit:

- Moving and re-organising of stockpiled gravel using a dozer and loader within the pit floor;
- Loading gravel onto trucks; and
- Transporting the material to the Scone Bypass Project site.

1.2 Audit Summary

Audit Title:	Ardglen Quarry Independent Environmental Audit
Site:	Ardglen Quarry
Client Contact:	Luke Robinson
Position:	Systems Manager – Construction Materials
Client:	Buttai Gravel Pty Limited (Daracon Quarries)
Client Address:	20 Kullara Cl (PO Box 401), Beresfield NSW 2322, Australia
Site Address:	Warra St, Ardglen NSW 2338
Client Telephone:	p: 02 4974 9200 m: 0417 481 785
Client Email:	luke.robinson@daracon.com.au
Audit Team:	Ken Holmes – Certified Lead Auditor Dr Avanish Panikkar – Certified Principal Auditor
Auditor's Telephone:	0438 046 261
Auditor's Fax:	(02) 8008 1600
Date of Site Visit	21 August 2018
Audit Scope:	<p>The audit was undertaken in accordance with the scope of work outlined in the pitt&sherry Proposal (dated 5 July 2018). As such, the audit provides an assessment of the environmental performance of the project by way of compliance with the requirements and conditions of the following regulatory approvals and provides recommendations to improve the environmental performance of the project. The NSW EPA and Liverpool Plains Shire Council were consulted during the audit. Compliance with the following Approval documents was assessed during this audit:</p> <ul style="list-style-type: none"> • Development Consent 06_0264 including modifications of December 2010; • Environment Protection Licence (EPL) No 1115; and • Statements of Commitments included in the Project Approval.

2. Audit Process

The audit process and methodology are described in this section, and comprised the following key undertakings:

- Preliminary planning activities;
- Review of information and preparation of a compliance register (audit protocol / checklist);
- Site inspection and interviews:
 - Opening meeting;
 - Site inspection;
 - Review of relevant records;
- Review of additional information provided after the site inspection; and
- Preparation of this audit report.

2.1 Preliminary Activities

Off-site planning for the site audit comprised:

- Initial discussions with Luke Robinson, Systems Manager – Construction Materials Daracon Group, to organise the site inspection;
- Prepare and Review the audit protocol / compliance checklist;
- Completion of a **pitt&sherry** Site Risk Assessment;
- Review of Daracon Quarries – Ardglan Quarry online information; and
- Submission of a preliminary document / record request.

2.2 Information Review and Compliance Register

Prior to the site inspection, Avanish Panikkar, in consultation with Ken Holmes, reviewed and revised the compliance register which formed both the audit checklist used during the site inspection and is the compliance register presented in the Appendices of this report. The compliance register specifies the conditions within the following Approval documents:

- Project Approval 06_0149 (Mod 1, dated December 2010);
- Environmental Protection Licence (EPL) No. 1115; and
- Statements of Commitments included in the Project Approval.

2.3 Site Audit

The audit team conducted the site inspection component of the IEA on Tuesday 21 August 2018.

2.3.1 Opening meeting

As the site auditors were to be accompanied while on site, no site induction was deemed necessary. The opening meeting was held on-site at the site office. It was attended by Luke Robinson, Ken Holmes and Avanish Panikkar.

2.3.2 Site Inspection

A general tour of the site was attended by the audit team, Ken Holmes and Avanish Panikkar, accompanied by Luke Robinson. This included observation of:

- The newly installed wheelwash system
- Site operations including re-organising of stockpiled materials and loading of materials onto trucks
- Site traffic operations
- Present conditions of the extension area
- Weather station and dust monitoring equipment
- Decommissioned site facilities including old crusher unit and electrical control room
- Water retention bodies including ponds and drainage channel
- Disused rail tracks
- Dough Boy Hollow Creek

A selection of the photographs taken during the audit are reproduced in **Appendix A** of this report.

2.3.3 Site Interviews

Audit interview comprised of discussions during site inspection visit and also at the site office with Daracon Systems Manager (Luke Robinson) and the Ardglen Quarry Site Supervisor Scott Brown.

2.3.4 Document review

Compliance related documents that were not available prior to and during the site component of the audit were requested to be provided following the audit. Luke Robinson assisted with the provision of documentation following the audit, through electronic file transfer mechanisms. The key documents reviewed during this audit are referenced in the Compliance Registers.

2.4 Reporting

The compliance register was completed using notes taken and observations recorded during the site inspection / interviews and review of the relevant Daracon documentation. The completed compliance registers are presented in **Appendix B**. A summary of the non-compliances identified during this audit are provided in Table 4.

The review of actions taken by Daracon in response to the 2013 Independent Audit is provided in Section 4.

2.4.1 Audit Criteria

The audit criteria used to determine compliance for this audit is defined in Table 1.

Table 1 - Compliance assessment criteria

Assessment	Criteria
Compliant	<p>Compliance</p> <p>The site complies with the requirements of applicable regulatory instruments (DA/Licence/Permit) & associated environmental requirements.</p> <p>A judgment made by an auditor that the activities undertaken, and the results achieved, fulfil the specified requirements of the audit criteria. While further improvements may still be possible, the minimum requirements are being met.</p>
Not-Compliant	<p>Non-Compliance</p> <p>Clear evidence has been collected to demonstrate the particular requirement has not been complied with and is within the scope of the audit.</p> <p>Site displays little or no evidence of compliance with the requirements of the regulatory documentation.</p>
Observation	<p>Observation (Minor non-compliance)</p> <p>Evidence of controls being partially in place, but with some gaps evident.</p> <p>* May have an understanding of requirement but cannot verify its implementation.</p>
Not Verified	<p>Where the auditor has not been able to collect sufficient verifiable evidence to demonstrate that the intent and all elements of the requirement of the regulatory approval have been complied with within the scope of the audit. In the absence of sufficient verification, the auditor may in some instances be able to verify by other means (visual inspection, personal communication, etc.) that a requirement has been met. In such a situation, the requirement should still be assessed as not verified. However, the auditor could note in the report that they have no reasons to believe that the operation is non-compliant with that requirement.</p>
Not Triggered	<p>Not Applicable / Not Triggered</p> <p>The respective condition / requirement was not activated within the scope of the audit.</p>
Noted	<p>A statement or fact, where no assessment of compliance is required.</p>

Risk levels for any non-compliances were identified consistent with Table 2.

Table 2 - Risk levels for non-compliances

Risk Level	Description
High	Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence.
Medium	<p>Non-compliance with:</p> <ul style="list-style-type: none"> • potential for serious environmental consequences, but is unlikely to occur; or • potential for moderate environmental consequences but is likely to occur.
Low	<p>Non-compliance with:</p> <ul style="list-style-type: none"> • potential for moderate environmental consequences, but is unlikely to occur; or • potential for low environmental consequences but is likely to occur.
Administrative non-compliance	Only to be applied where the non-compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions).

3. Statutory Compliance & Recommendations

The environmental performance of the Ardglen Quarry has been reviewed by assessing compliance against the various documentation related to project approval, as listed in section 2.2 of this report. Compliance Registers presented in **Appendix B** provide a detailed review of the compliance status of the site, including recommendations to address non-conformances.

3.1 Summary of Compliance Status

A summary of compliance with statutory requirements is provided in Table 3. The number of conditions include sub-clauses within each approval document.

Table 3 - Summary of Statutory Compliance

Approval/ Licence	No. of Conditions	Compliant	Non- Compliant	Observation	Noted	Not Verified	n/a or Not Triggered
Development Consent (06_0264)	133	58	5	6	6	0	58
EPL No. 1115	48	20	1	0	12	0	15
Statements of Commitments	23	14	5	0	2	0	2
TOTAL	204	92	11	6	20	0	75

3.2 Non-Compliances and Observations

Non-compliances identified during the site inspection, interviews and document reviews are recorded in detail in the Compliance Registers in **Appendix B** and are summarised in Table 4. Observations noted are summarised in Table 5. Recommendations have been made to address all identified Non-Compliances and the Observations.

Table 4 - Non-Compliances and Recommendations

#	Condition	Requirement	Non-Compliance and Recommendation	Risk Level
NC1	Sch. 3. Cl. 6	<p>Monitoring</p> <p>Prior to any works being undertaken in the Extension Area, the Proponent shall prepare and implement a Noise Monitoring Program for the project, in consultation with DECCW, and to the satisfaction of the Director-General. The program must include:</p> <p>(a) a combination of attended and unattended noise monitoring measures; and</p> <p>(b) a noise monitoring protocol for evaluating compliance with the noise impact assessment and land acquisition criteria in this approval.</p>	<p>As per the DPE's response (31 May 2018) to the Ardglen Quarry 2017 AEMR review, noise monitoring had not been conducted quarterly. Daracon had failed to undertake quarterly noise monitoring as noted in the Noise Monitoring Program.</p> <p>Recommendation - Ensure that all actions, including monitoring, specified in the Noise Monitoring Program are fully implemented.</p>	
NC2	Sch. 3. Cl. 24	<p>Rehabilitation</p> <p>The Proponent shall progressively rehabilitate the site in a manner that is generally consistent with the conceptual rehabilitation principles and proposed rehabilitation strategy in the EA (shown conceptually in Appendix 2), to the satisfaction of the Director-General.</p>	<p>As per AEMR section 2.11, there was no specific rehabilitation during the audit period apart from targeted weed control and ongoing maintenance of offset areas. There has been no progressive rehabilitation undertaken on the site.</p> <p>Recommendation: Progressive rehabilitation should be undertaken as per Appendix 2 of the consent.</p>	
NC3	Sch. 3. Cl. 26; SoC 8	<p>Offset Strategy</p> <p>Within 3 years of this approval, the Proponent shall make suitable arrangements to provide appropriate long term security for the offset areas to the satisfaction of the Director-General.</p>	<p>Section 4.9 of the plan shows commitment to "securing the long term security of the offset sites by November 2011 through a Voluntary Conservation Agreement with the NSW Minister of Environment, DECCW or via other mechanisms". Daracon has not provided long term security for the off-set areas as per the stipulated timeframe. They are in the process of applying for section 88B [Conveyance Act 1919] instrument to create an easement over the offset areas to protect those areas.</p> <p>Recommendation: The application for easements over the off-set areas should be submitted as soon as practical.</p>	

NC4	Sch. 3 Cl. 29(d)	<p>Rehabilitation and Biodiversity Offset Management Plan</p> <p>The Rehabilitation and Biodiversity Offset Management Plan must:</p> <p>include a detailed description of what measures would be implemented over the next 5 years to rehabilitate the site, including the procedures to be implemented for:</p> <ul style="list-style-type: none"> • progressively rehabilitating areas disturbed by quarrying; • implementing revegetation and regeneration within the disturbance areas, including establishment of canopy, sub-canopy (if relevant), understorey and ground strata; • managing the remnant vegetation and habitat on site; • managing impacts on fauna; • reducing the visual impacts of the project; • landscaping the site to minimise visual impacts; • protecting areas outside the disturbance areas; • conserving and reusing topsoil; • collecting and propagating seeds for rehabilitation works; • salvaging and reusing material from the site for habitat enhancement; • controlling weeds and feral pests; • controlling access; and • bushfire management; 	<p>Environmental Management Strategy (EMS) Ver.3 for Ardglen Quarry Extension Major Project 06/0264 prepared by Orogen, dated September 2010. Section 4 of the Landscape Management Plan (Appendix I in EMS) details Rehabilitation and Biodiversity Offset Management Plan.</p> <p>The landscape management plan which includes the Rehabilitation and Biodiversity Management Plan, while addressing the relevant requirements for this clause in various sub-sections, is not clear on the five-year plan.</p> <p>Recommendation: Revise the Rehabilitation and Biodiversity Offset Management plan to address this requirement by developing five-year plan with clear procedures.</p>	
NC5	Sch. 3 Cl. 29(h)	<p>Rehabilitation and Biodiversity Offset Management Plan</p> <p>The Rehabilitation and Biodiversity Offset Management Plan must:</p> <p>(h) details of who is responsible for monitoring, reviewing and implementing the plan.</p>	<p>Section 4.2.2 of the Landscape Management Plan (section 4 Rehabilitation and Biodiversity Offset Management Plan / Strategy) states that Daracon Quarries will be responsible for ensuring implementation, monitoring and review of this plan. Roles and responsibilities are not clear.</p> <p>Recommendation: Revise the Rehabilitation and Biodiversity Offset Management plan to address this requirement including clear roles and responsibilities for implementing the Rehabilitation and Biodiversity Offset Management Plan.</p>	

NC6	SoC 6	<p>Biodiversity</p> <p>The proponent will implement the biodiversity offset strategy outlined in the EA, which includes the conservation and long-term protection of the areas described in Table 1.</p> <table><tr><th>Land Description</th><th>Area (ha)</th><th>Proposed Management Strategy</th></tr><tr><td>Lot 187 DP 751028</td><td>8.2</td><td>stock removal, weed control, planting of EEC trees, transport of logs and rocks, provision of nest boxes</td></tr><tr><td>Lot 39 DP 751028</td><td>11.65</td><td>stock removal, weed control, major planting of EEC trees and grasses, transport of logs and rocks</td></tr><tr><td>Lot 49 DP 751028</td><td>16.3</td><td>stock removal, weed control</td></tr><tr><td>Total</td><td>36.15</td><td></td></tr></table>	Land Description	Area (ha)	Proposed Management Strategy	Lot 187 DP 751028	8.2	stock removal, weed control, planting of EEC trees, transport of logs and rocks, provision of nest boxes	Lot 39 DP 751028	11.65	stock removal, weed control, major planting of EEC trees and grasses, transport of logs and rocks	Lot 49 DP 751028	16.3	stock removal, weed control	Total	36.15		<p>The three off-set areas have been established and are described in the Off-set strategy. The Auditor viewed the off-set area in Lot 187 and while the presence of nest boxes was observed, no evidence of placement of logs and rocks, or the planting of EEC trees was sighted. It was also noted that while the area was fenced, that small grazing animals, such as goats (that are present on the site) would be able to move under the fence in at least one location.</p> <p>Recommendation: Undertake an audit of all off-set areas as required and prepare a program of works to implement the Strategy.</p>
Land Description	Area (ha)	Proposed Management Strategy																
Lot 187 DP 751028	8.2	stock removal, weed control, planting of EEC trees, transport of logs and rocks, provision of nest boxes																
Lot 39 DP 751028	11.65	stock removal, weed control, major planting of EEC trees and grasses, transport of logs and rocks																
Lot 49 DP 751028	16.3	stock removal, weed control																
Total	36.15																	
NC7	SoC 8	<p>Biodiversity</p> <p>The proponent will make suitable arrangement to provide appropriate long term security for the offset areas.</p>	<p>Section 4.9 of the plan shows commitment to "securing the long term security of the offset sites by November 2011 through a Voluntary Conservation Agreement with the NSW Minister of Environment, DECCW or via other mechanisms". Daracon has not provided long term security for the off-set areas as per the stipulated timeframe. They are in the process of applying for section 88B [Conveyance Act 1919] instrument to create an easement over the offset areas to protect those areas. The Auditor sighted the application for the easement and understands that the application had yet to be submitted at the time of reporting.</p> <p>Recommendation: The application for easements over the off-set areas should be submitted as soon as practical.</p>															

NC8	SoC 12	<p>Air Quality</p> <p>In addition to the dust mitigation measures currently employed, the proponent will implement the following measures to ensure particulate matter emissions are minimised:</p> <ul style="list-style-type: none"> • revegetation of exposed surfaces where possible; • sealing the haul road; • limiting the speed limit on unpaved surfaces to 15 km/hr; • high level watering of unpaved road surfaces (greater than 2L/m²/hr); • covering all loads leaving the site; • building a wheel wash at the end of the unpaved section of the haul road (after the weighbridge); and • wet suppression or chemical coating of static stockpiles. 	<p>At the site audit, the Auditors observed that the following requirements have been met:</p> <ul style="list-style-type: none"> * Sealing of haul road * covering of all loads leaving the site * operational wheel wash at the end of unpaved section within the site * wet suppression of static stockpiles with recycled water from the wheel wash system <p>The approved revised Traffic and Transportation Management Plan address:</p> <ul style="list-style-type: none"> * limiting speed limit on unpaved surfaces to 15km/hr * covering of all loads leaving the site. <p>Revegetation of exposed surfaces has not been undertaken - progressive rehabilitation of the site has not been undertaken.</p> <p>Recommendation: Plan and undertake progressive rehabilitation of the site including revegetation of exposed surfaces where possible.</p>	
NC9	SoC 15	<p>Rehabilitation</p> <p>The proponent will progressively rehabilitate the site, generally in accordance with the rehabilitation strategy outlined in the EA.</p>	<p>Re-vegetation of exposed surfaces has not been undertaken - progressive rehabilitation of the site has not been undertaken.</p> <p>Recommendation: Plan and undertake progressive rehabilitation of the site including revegetation of exposed surfaces where possible.</p>	
NC10	SoC 20	<p>Visual Amenity</p> <p>The proponent will implement the following mitigation measures reduce the potential visual impacts of the project:</p> <ul style="list-style-type: none"> • those areas of the quarry in which the resource has been exhausted will be progressively rehabilitated and revegetated; and • further planting will be undertaken along the ridgeline to the west of the proposed extension area. 	<p>Progressive rehabilitation and revegetation of the site has not been undertaken.</p> <p>Planting along the ridgeline to the west of the Extension Area has not been undertaken.</p> <p>Recommendation: Plan and undertake progressive rehabilitation of the site including revegetation of exposed surfaces where possible.</p> <p>Planting along the ridgeline to the west of Extension Area should be undertaken and included in the Rehabilitation Plan</p>	

NC11	EPL M2.1 / M2.2	<p>Requirement to monitor concentration of pollutants discharged</p> <p>For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:</p> <p>Air Monitoring Requirements</p> <p>POINTS 2,3,4</p>	<p>The EPL requires only the monitoring of dust by Sampling Method AM-10 (Dust Deposition Gauges). Monitoring is required at three locations (Points 2, 3 and 4). The sampling method used meets the EPL requirements. The lack of monthly monitoring is a breach of this licence condition.</p> <p>Recommendation: Ensure that dust deposition gauges are checked regularly for loss or damage and that dust monitoring is undertaken every month.</p> <p>Recommendation: Ensure the version of the EPL used by Daracon matches that on the EPA's EPL database in version number and contents.</p>	
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Table 5 - Observations (minor non-compliances)

#	Condition	Requirement	Observation and Recommendation	Risk Level																																																																	
O1	Sch. 3 Cl. 2 And SoC 10	<p>Noise Impact Assessment Criteria</p> <p>The Proponent shall ensure that the noise generated by the project does not exceed the noise impact assessment criteria in Table 2 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.</p> <p>Table 2: Noise impact assessment criteria dB(A)</p> <table><tr><th>Land</th><th>Day L_{Aeq}(15 min)</th><th>Evening L_{Aeq}(15 min)</th><th>Night L_{Aeq}(15 min)</th><th>L_{A1C}(1 min)</th></tr><tr><td>1 – Burraston</td><td>35</td><td>35</td><td>35</td><td>45</td></tr><tr><td>3 – Rose</td><td>35</td><td>35</td><td>35</td><td>45</td></tr><tr><td>4 – CM Thompson</td><td>44</td><td>35</td><td>35</td><td>45</td></tr><tr><td>5 – M Taylor</td><td>45</td><td>35</td><td>35</td><td>45</td></tr><tr><td>6 – S Thompson</td><td>45</td><td>35</td><td>35</td><td>45</td></tr><tr><td>9 – Bates</td><td>37</td><td>35</td><td>35</td><td>45</td></tr><tr><td>10 – Avery</td><td>38</td><td>35</td><td>35</td><td>45</td></tr><tr><td>11 – Shipman</td><td>37</td><td>35</td><td>35</td><td>45</td></tr><tr><td>12 – Hall</td><td>36</td><td>35</td><td>35</td><td>45</td></tr><tr><td>13 – McGhie</td><td>35</td><td>35</td><td>35</td><td>45</td></tr><tr><td>14 – Purtell</td><td>36</td><td>35</td><td>35</td><td>45</td></tr><tr><td>15 – J Taylor</td><td>43</td><td>35</td><td>35</td><td>45</td></tr></table> <p>However, if the Proponent has a written negotiated noise agreement with any landowner of the land listed in Table 2, and a copy of this agreement has been forwarded to the Department and DECCW, then the Proponent may exceed the noise limits in Table 2 in accordance with the negotiated noise agreement. The Proponent may also exceed the LA1(1 min) and LAeq(15 min) noise impact assessment criteria during out of hours rail loading activities provided they are conducted in accordance with condition 41 below.</p>	Land	Day L _{Aeq} (15 min)	Evening L _{Aeq} (15 min)	Night L _{Aeq} (15 min)	L _{A1C} (1 min)	1 – Burraston	35	35	35	45	3 – Rose	35	35	35	45	4 – CM Thompson	44	35	35	45	5 – M Taylor	45	35	35	45	6 – S Thompson	45	35	35	45	9 – Bates	37	35	35	45	10 – Avery	38	35	35	45	11 – Shipman	37	35	35	45	12 – Hall	36	35	35	45	13 – McGhie	35	35	35	45	14 – Purtell	36	35	35	45	15 – J Taylor	43	35	35	45	<p>Following an inspection of the site by DPE in their letter to Daracon dated 11 July 2018, DPE noted that the quarterly noise monitoring required by the Daracon's Noise Monitoring Program had not been undertaken. The Auditor understands that annual noise monitoring was, however undertaken.</p> <p>It is the Auditor's opinion that during the care and maintenance period that an exceedance of the noise criteria would be unlikely as no fixed equipment or heavy plant were being operated. However, the lack of monitoring data prevents verification of that opinion.</p> <p>Recommendation: Undertake noise monitoring and reporting as required.</p>	
Land	Day L _{Aeq} (15 min)	Evening L _{Aeq} (15 min)	Night L _{Aeq} (15 min)	L _{A1C} (1 min)																																																																	
1 – Burraston	35	35	35	45																																																																	
3 – Rose	35	35	35	45																																																																	
4 – CM Thompson	44	35	35	45																																																																	
5 – M Taylor	45	35	35	45																																																																	
6 – S Thompson	45	35	35	45																																																																	
9 – Bates	37	35	35	45																																																																	
10 – Avery	38	35	35	45																																																																	
11 – Shipman	37	35	35	45																																																																	
12 – Hall	36	35	35	45																																																																	
13 – McGhie	35	35	35	45																																																																	
14 – Purtell	36	35	35	45																																																																	
15 – J Taylor	43	35	35	45																																																																	
O2	Sch. 3. Cl 15	<p>The proponent shall ensure that the dust emissions generated by the project do not cause additional exceedances of the air quality impact assessment criteria listed in Tables 8, 9 and 10 at any residence, on privately-owned land or on more than 25% of any privately-owned land.</p> <p>Table 8: Long term impact assessment criteria for particulate matter</p> <table><tr><th>Pollutant</th><th>Averaging period</th><th>Criterion</th></tr><tr><td>Total suspended particulate (TSP) matter</td><td>Annual</td><td>90 µg/m³</td></tr><tr><td>Particulate matter < 10 µm (PM₁₀)</td><td>Annual</td><td>30 µg/m³</td></tr></table> <p>Table 9: Short term impact assessment criterion for particulate matter</p> <table><tr><th>Pollutant</th><th>Averaging period</th><th>Criterion</th></tr><tr><td>Particulate matter < 10 µm (PM₁₀)</td><td>24 hour</td><td>50 µg/m³</td></tr></table> <p>Table 10: Long term impact assessment criteria for deposited dust</p> <table><tr><th>Pollutant</th><th>Averaging period</th><th>Maximum increase in deposited dust level</th><th>Maximum total deposited dust level</th></tr><tr><td>Deposited dust</td><td>Annual</td><td>2 g/m²/month</td><td>4 g/m²/month</td></tr></table>	Pollutant	Averaging period	Criterion	Total suspended particulate (TSP) matter	Annual	90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	30 µg/m ³	Pollutant	Averaging period	Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	50 µg/m ³	Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level	Deposited dust	Annual	2 g/m ² /month	4 g/m ² /month	<p>The 2016 AEMR notes that the dust gauge 3 funnel had been stolen with no data collected during Jan-Apr 2016.</p> <p>There has been an exceedance - eg Feb 2016 dust gauge measurements indicating 6.4g/m2 where maximum is 4g/m2 at the D3 dust gauge. This is an exceedance as per Table 10: Long term impact assessment criteria for deposited dust. The breakup of the result was Ash 2.7g/m2 and Combustible Matter 3.7g/m2. The matter was investigated and found that a whipper snipper used for vegetation removal during dry weather had caused air borne dust at the same time the HVAS filters were being changed.</p> <p>Preventive action to review use of mechanical aids to control vegetation growth around dust gauges and use of non-mechanical aids were proposed. An observation is raised as this matter was not recorded in the 2016 AEMR.</p> <p>Recommendation: Daracon should continue dust monitoring and</p>																																											
Pollutant	Averaging period	Criterion																																																																			
Total suspended particulate (TSP) matter	Annual	90 µg/m ³																																																																			
Particulate matter < 10 µm (PM ₁₀)	Annual	30 µg/m ³																																																																			
Pollutant	Averaging period	Criterion																																																																			
Particulate matter < 10 µm (PM ₁₀)	24 hour	50 µg/m ³																																																																			
Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level																																																																		
Deposited dust	Annual	2 g/m ² /month	4 g/m ² /month																																																																		

			undertake remedial measures as proposed to manage exceedances. Continue to implement proposal to use non-mechanical aid to clear vegetation near dust gauges and also to avoid changing of dust gauge filters if there is potential for dust disturbance nearby.	
O3	Sch. 3. Cl. 29 (f)	<p>Rehabilitation and Biodiversity Offset Management Plan</p> <p>The Rehabilitation and Biodiversity Offset Management Plan must:</p> <p>(f) a detailed description of how the performance of the rehabilitation of the site and implementation of the Biodiversity Offset Strategy and Doughboy Hollow Creek Rehabilitation Strategy would be monitored over time to achieve the relevant objectives and completion criteria;</p>	<p>Performance monitoring measures are noted within Table 4.1 of the Landscape Management Plan (section 4 Rehabilitation and Biodiversity Offset Management Plan / Strategy however this does not give detailed descriptions.</p> <p>Recommendation: Revise the Landscape Management Plan to include a detailed description of how the performance of the rehabilitation of the site and implementation of the Biodiversity Offset Strategy and Doughboy Hollow Creek Rehabilitation Strategy would be monitored over time to achieve the relevant objectives and completion criteria.</p>	
O4	Sch. 3 Cl. 46	<p>Greenhouse Gas</p> <p>The Proponent shall:</p> <p>(a) monitor the greenhouse gas emissions generated by the project;</p> <p>(b) investigate ways to reduce greenhouse gas emissions generated by the project; and</p> <p>(c) report on greenhouse gas monitoring and abatement measures in the AEMR, to the satisfaction of the Director-General.</p>	<p>Daracon reports greenhouse gas emissions associated with the project in their NGERS reporting however ways to reduce emissions generated by Ardglan Quarry project and other details are not provided in the AEMRs.</p> <p>Recommendation: Daracon should include emissions reduction considerations and other details relevant to Arglen Quarry in the AEMRs upon recommencement of operations.</p>	
O5	Sch. 4 Cl. 1	<p>Notification of Landowners</p> <p>If the results of monitoring required in Schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria, then the Proponent shall notify the Director-General and the affected landowners and/or existing or future tenants (including tenants of quarry owned properties) accordingly, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the relevant criteria.</p>	<p>In 2016, dust exceedance on 17th and 23rd April 2016 were reported to DPE. It is noted that this letter is dated 15 Mar 2016.</p> <p>A minor exceedance of dust criteria during February 2016 was reported to EPA via letter dated 15 Mar 2016. This has been included in the 2016 AEMR and discussed at the CCC meeting of 23 Aug 2016. The presentation made to CCC includes depositional dust gauge readings as a chart, indicating the high reading in February 2016 at monitoring station EP4.</p> <p>The minutes of this CCC meeting does not include a reference to the 'minor exceedance' of February 2016 rather notes that "Air monitoring results have reported levels consistently below criteria".</p>	

			<p>The CCC includes four of the landowners in the immediate surroundings of the site.</p> <p>While the presentation to CCC in August 2016 included a chart indicating all dust measurements from May 2017 to May 2016, the chart does not include the compliance criteria and the minutes of the meeting does not refer to the dust exceedance of February 2016 as reported to EPA and DPE.</p> <p>Recommendation: Include compliance criteria level in the presentations given to CCC so that exceedances are clearly represented in the data.</p>	
O6	Sch. 4 Cl. 3(a)	<p>Incident Reporting</p> <p>Within 7 days of detecting an exceedance of the limits/performance criteria in this approval or the occurrence of an incident that causes (or may cause) harm to the environment, the Proponent shall report the exceedance/incident to the Department and any relevant agencies. This report must:</p> <p>(a) describe the date, time, and nature of the exceedance/incident;</p>	<p>The 2016 AEMR noted that the dust gauge 3 funnel had been stolen with no data collected during Jan-Apr 2016.</p> <p>There has been an exceedance - in Feb 2016 dust gauge measurements indicating 6.4g/m2 where maximum is 4g/m2 at the D3 dust gauge. Preventive action to review use of mechanical aids to control vegetation growth around dust gauges and use of non-mechanical aids were proposed. The time of the incident were not reported. An observation is raised as this matter was not reported in detail in the 2016 AEMR.</p> <p>Recommendation: The incident report should note the date, time and nature of the exceedance/incident if possible. The AEMR should report all reportable incidents and exceedances.</p>	

3.3 Opportunities for Improvement

During the detailed data review and audit, a range of observations related to environmental risk management and performance were identified. These observations and subsequent recommendations are presented below.

3.3.1 Site Rehabilitation Management

Schedule 3 Condition 24 of the Project Approval specifically requires that the *“Proponent shall progressively rehabilitate the site in a manner that is generally consistent with the conceptual rehabilitation principles and proposed rehabilitation strategy in the EA, to the satisfaction of the Director-General”*.

During the site inspection undertaken by the Auditor, it was apparent that no progressive rehabilitation had been undertaken by the Proponent.

Schedule 3 Conditions 27(c) and 29(b) requires the preparation of a Rehabilitation and Biodiversity Offset Management Plan. Condition 29(d) requires that the Rehabilitation and Biodiversity Offset Management Plan contain details regarding *“progressively rehabilitating areas disturbed by quarrying”*. The Plan (prepared by Orogen Pty Ltd in September 2010 and approved by DPE 26 November 2010) states that *“....quarry rehabilitation is unlikely to be progressive in nature and would chiefly occur as part of a final mine closure activity”*. The plan therefore does not meet the requirements of the Conditions of Approval. It is the Auditor’s understanding that the Conditions of Approval take precedence over the contents of any plan prepared as a requirement of the Approval and therefore Condition 29(d) prevails.

The inconsistency between the Rehabilitation and Biodiversity Offset Management plan and the conditions of Approval should be addressed in the review of the plan recommended in Section 3.2 above.

The Auditor noted (from observations made during the Audit) that the majority of the disturbed areas associated with the previous quarry works are within area previously quarried area and that (as advised by Daracon) a decision has not been made regarding the future extent of quarrying to be undertaken within that area. No quarrying has been undertaken within the Extension Area. Therefore, the Auditor is unable to provide a definitive opinion regarding the extent of potential progressive rehabilitation that could reasonably have been completed without access to Daracon’s plans for future quarrying activities, including the scope of future quarrying, crushing, stockpile management and related activities.

However, it is reasonable to expect that all areas where quarrying has been completed would have been shaped to meet the final landform profiles, stabilised and appropriate vegetation established. It is also noted that in the November 2010 DPE letter approving the 2010 Rehabilitation and Biodiversity Offset Management Plan, that DPE has required that Daracon prepared detailed closure plan at least three (3) years prior to the planned cessation of quarrying. As the commencement of extraction works has not yet commenced in the Extension Area, the formal cessation of quarrying is not expected to occur for many years.

It is therefore recommended that, as part of the review of the Rehabilitation and Biodiversity Offset Management Plan, that Daracon:

- identify those areas of the previously quarried area;
- identify areas outside of the Extension Area that are currently degraded (disturbed by past works or otherwise cleared of vegetation); and
- prepare final landform plans for those areas, including plans for progressive rehabilitation of those areas.

3.3.2 Emissions Monitoring

Quarterly noise monitoring is a requirement under the Project Approval. DPE has noted a breach for lack of quarterly noise monitoring, though no enforcement action had been taken. Quarterly noise monitoring and reporting should be undertaken as required.

The EPL requires that the monitoring of dust by Sampling Method AM-10 (Dust Deposition Gauges). Monitoring is required at three locations (Points 2, 3 and 4) on a monthly basis. While the sampling method used meets the EPL requirements, lack of monthly monitoring is a breach of this licence condition. Daracon should ensure that dust deposition gauges are checked regularly for loss or damage and that dust monitoring is undertaken every month.

4. Review of the 2013 Independent Environmental Audit

The previous Independent Environmental Audit was undertaken by JM Environments in 2013 and their report was issued in July 2014.

A review of that report by this Auditor focussed on the recommendations detailed in the 2013, specifically:

- Table 4.2 that contains a range of recommendations made by the previous auditor in response to the audit findings and is purported to be a comprehensive list of audit recommendations;
- Appendix C that contains a copy of the “Audit Checklist” that contained the detailed observations made by the previous auditor and includes specific recommendations (that would be expected to be summarised in Table 4.2).

The review of those sections of the JM Environments Report found that while the majority of the recommendations contained Table 4.2 were apparently drawn from the Audit Checklist, that:

- there were a number of recommendations in Table 4.2 that were not recorded in the Audit Checklist; and
- that some recommendations contained in the Audit Checklist were not transcribed in Table 4.2.

Table 6 provides an assessment of the actions taken by Daracon in response to the 2013 Independent Audit recommendations. Each recommendation has been assessed as either:

- Closed (recommendation requirements have been addressed and no further action required.
- Open (actions to address the recommendation have not been taken or completed.
- Not Triggered (actions not required at this time as the Condition referenced has not been triggered).

Of the forty-two (42) recommendations presented in the 2013 Independent Audit, eleven (11) have not been triggered, twenty-two (22) have been assessed as Closed and nine (9) remain Open.

Table 6 - Previous Audit Recommendations Review

APPENDIX C AUDIT CHECKLIST					TABLE 4.2		KMH ASSESSMENT	
Clause	Condition	2013 Audit Finding	2013 Audit Recommendation	2013 Compliance Rating	Table 4.2 Condition	Table 4.2 Recommendation	Status	Evidence
S2 cl14	The Proponent shall: (a) repair, or pay all reasonable costs associated with repairing any public infrastructure that is damaged by the project; and (b) relocate, or pay all reasonable costs associated with relocating any public infrastructure that needs to be relocated as a result of the project.	Public infrastructure (roads and bridge) appears to be in good order. It was noted in a Community Consultative Committee (CCC) Agenda dated 6 September 2011 that the road to the site was “contracting” in some areas (particularly at the corner) due to truck movements. The action for this item was “The road is Council’s responsibility and Daracon will raise the matter with Council”	Daracon should ensure that the CCC consultant is aware of all the conditions of the approval.	Minor NC	S2 cl19 (incorrectly referenced)	Daracon should ensure that the CCC consultant is aware of all the conditions of the approval.	Closed	The Auditor sighted the access roads (including intersection with the New England Highway). No visible evidence of damage to local infrastructure was apparent. Ardglen Management stated that there has been no relocation of or damage to public infrastructure during the audit period. The CCC were provided with a copy of the Approval via email from the CCC Chairperson (Shay Riley-Lewis) dated 27 June 2018.
S2 cl 18	The Proponent shall not import more than 80,000 tonnes of materials or the purposes of blending and product quality improvement each year.	Daracon asserts that that only a precoat material (<80,000 tonnes) is brought onto site. No records were available	A record of imported materials must be kept. Auditor assumes that a financial record was kept but able to be located.	Complies / Recommendation Only			Not Triggered	Daracon stated that no materials were imported onto the site during the audit period.
S2 cl9	Within 3 years of this approval, the Proponent shall surrender all development consents or continuing use rights for the Ardglen Quarry, to the satisfaction of the Director General.	Development consents or continuing use rights for the Ardglen Quarry have not been surrendered.	Daracon to-surrender all development consents as soon as practicable.	NC	S2 cl9	Daracon are to surrender all development consents as soon as practicable.	Closed	DPE letter regarding recommencement of operations confirms that all development consents and continuing use rights were surrendered by Daracon Quarries as noted in a DPE letter of 20 Aug 2015.
S3 cl2	The Proponent shall ensure that the noise generated by the project does not exceed the noise impact assessment criteria in Table 2 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.	The project operated between 2008 and 2011 when it the quarry was shut down. In October 2010 a sound level survey was conducted by Spectrum Acoustics which showed exceedance of the project specific Noise Goals as a result of quarry operations. The project does not comply with Consent condition S3ClS2 when it is operational but it is currently not operational so it does not presently emit operational noise	Satisfactory Noise Control works are to be implemented before operations recommence.	NC	S3 cl2	Satisfactory Noise Control works are to be implemented before operations recommence.	Not Triggered	It is the Auditor's opinion that during the care and maintenance period that an exceedance of the noise criteria would be unlikely as no fixed equipment or heavy plant were being operated. However, the lack of monitoring data prevents verification of that opinion. The referenced AEMRs indicate that quarterly noise monitoring was not undertaken during the Care and Maintenance period. Attended noise monitoring was undertaken on 14 December 2017 by Spectrum Acoustics at locations 4, 13, 14 and 16, the results of which indicated compliance with the specified criteria. This testing was confirmed by the unattended noise monitoring from environmental noise loggers set up and located on the quarry fence line in the vicinity of location 14 and to the west of the fence at location 16 from 14 to 20 December, 2017. Quarterly noise monitoring has recommenced in August 2018.

APPENDIX C AUDIT CHECKLIST					TABLE 4.2		KMH ASSESSMENT	
Clause	Condition	2013 Audit Finding	2013 Audit Recommendation	2013 Compliance Rating	Table 4.2 Condition	Table 4.2 Recommendation	Status	Evidence
S3 cl11	The Proponent shall not undertake blasting within 500 metres of any privately- owned land or any land not owned by the Proponent, unless suitable arrangements have been made with the landowner and any tenants to minimise the risk of flyrock-related impact to the property to the satisfaction of the Director-General.	Much of the quarry is within 500 metres of other land and so a good deal of the blasting would need to have specific arrangements in place with nearby land owners. A review of the Drill and blast SWMS shows that it does not identify specific actions when blasting within is to 500 meters of non quarry owned land. No specific arrangements have been identified. Drill and Blast SWMS for control of Fly rock does not identify 500 metre permissions requirement.	Blast SWMS should be updated to ensure that appropriate communication s and fly rock protection are in place for blasting a within 500 m of adjacent land. It would be wise to make this a standard provision for all blasts since much of the quarry is with 500 m of adjacent land	NC	S3 cl11	Blast SWMS should be updated to ensure that appropriate communications and fly rock protection are in place for blasting a within 500 m of adjacent land. It would be wise to make this a standard provision for all blasts since much of the quarry is with 500 m of adjacent land.	Open	Daracon stated that no blasting has occurred during the audit period and that there are no current plans for the recommencement of blasting. Daracon stated that the SWMS will be reviewed and updated prior to blasting occurring in the future.
S3 cl5	The Proponent shall: (a) implement all reasonable and feasible noise mitigation measures; (b) investigate ways to reduce the noise generated by the project, including off-site road and rail noise and maximum noise levels which may result in sleep disturbance; and (c) report on these investigations and the implementation and effectiveness of these measures in the AEMR, to the satisfaction of the Director-General	The required treatments have been specified the statement of commitments and the noise management plan and these have not Implemented. The manner of operation of the quarry will change substantially when it restarts because the existing plant that was specified for treatment will not be used. Some of the Treatments specified in the Noise management plan no longer apply and some new treatments will need to be specified. Daily check lists for equipment do not contain an item to identify excessively noisy equipment. Item b in this condition is considered to be impractical since the quarry operator has no control over rail operations and only limited control over road operations when the operator provides their own vehicles for product transport. Item b in the condition should be removed or amended.	The proposed noise control treatments should be reviewed and redesigned as necessary and the NMP and other applicable documents are to be updated to reflect proposed new operating methods.	NC	S3 cl5	The proposed noise control treatments should be reviewed and redesigned as necessary and the NMP and other applicable documents are to be updated to reflect proposed new operating methods.	Closed	A revised Noise Management Plan (Feb 2018) and approved by DPE in September 2018 has been prepared. The plan specifies reasonable noise mitigation measures to be implemented.
S3 cl18					S3 cl18	Daracon to supply specifications or a statement from supplier that the meteorological station meets the requirements in Approved Methods for Sampling of Air Pollutants in New South Wales guideline.	Closed	Certificate of Performance from Environdata dated 25 June 2018
S3 cl19					S3 cl19	The Lube Shed area potentially contains chemicals that may significantly impact on the water quality of Doughboy Hollow Creek. It is recommended that the stormwater is directed from the Lube Area to one of the smaller sumps located on site. This action should be undertaken as soon as practicable.	Closed	At the time of the audit, no bulk storage of fuel or other hazardous materials was sighted by the Auditor. An aboveground fuel tank is located in this area and is appropriately bunded. The Lube shed drains to a sediment pond located in the centre of the quarry (near the Lube Shed). If a spill was to occur in the lube shed any materials not captured within the existing bunds could be captured in the sediment pond.
S3 cl20					S3 cl20	It is recommended that surface water quality monitoring is implemented regardless of the operational status of the quarry.	Open	No surface Water monitoring has been undertaken during the Audit period.

APPENDIX C AUDIT CHECKLIST					TABLE 4.2		KMH ASSESSMENT	
Clause	Condition	2013 Audit Finding	2013 Audit Recommendation	2013 Compliance Rating	Table 4.2 Condition	Table 4.2 Recommendation	Status	Evidence
S3 cl26	Within 3 years of this approval, the Proponent shall make suitable arrangements to provide appropriate long term security for the offset areas to the satisfaction of the Director-General.	Section 4.9 of the LMP states “Daracon is committed to securing the long-term security of the offset sites by November 2011 either through a Voluntary Conservation Agreement (VCA) with the NSW Minister of Environment, Climate Change and Water (DECCW) or via other mechanisms.” No Voluntary Conservation Agreement or other mechanisms have been implemented to date.	A VCA, or similar mechanism should be implemented as soon as practicable.	NC	S3 cl26	A VCA, or similar mechanism, should be implemented as soon as practicable.	Open	Daracon has not provided financial security for the off-set areas. They are in the process of applying for section 88B [Conveyance Act 1919] instrument to create an easement over the offset areas to protect those areas. The Auditor sighted the application for the easement and understands that the application had yet to be submitted.
S3 cl28	The Doughboy Hollow Creek Rehabilitation Strategy must: (a) be prepared in consultation with the I&I NSW and NOW;	(a)DHCRS was prepared in consultation with DECCW, Namoi CMA and CSIRO. No consultation with I&I NSW (DPI) and NOW (DWE) was undertaken.	No as DHCRHS approved by DG.	NC			Closed	Appendix B of the Landscape Management Plan (Appendix I of the Orogen EMS) includes copy of various email correspondence with DECCW's Environment Protection and Regulation Group and Orogen's senior botanist Isaac Mamott.
S3 cl28 (b) (c)					S3 cl28 (b), (c)	A review and implementation of DHCRS is required to prior to undertaking any works in the extension area.	Not Triggered	The Auditor noted that work I the extension area had not commenced and therefore this condition has not been triggered.
S3 cl33(a)	The proponent shall keep records of the amount of quarry materials imported onto the site each year	Daracon asserts that that only a precoat material (<80,000 tonnes) is brought onto site. No records were available	A record of imported materials must be kept. Auditor assumes that a financial record was kept but able to be located.	Complies / Recommendation Only			Not Triggered	Truck loading dockets inspected by the Auditors indicated the following information being recorded: <ul style="list-style-type: none"> - amount of quarry materials transported from the site in each trip (which can be used to calculate annual quantities) - * number of truck movements generated by the project - Ardglen management stated that there have been no materials imported onto the site or train movements reported.
S3 cl33 (b)	The Proponent shall: provide annual production data to the I&I NSW using the standard form for that purpose;	No production detail in 2012 AEMR	Daracon are to produce production data to the I&I NSW once production recommences	NC			Not Triggered	There has been no production at the quarry since December 2012. This requirement is therefore has not been triggered since the last audit.
S3 cl33 (c)	include these records in the AEMR.	No production detail in 2012 AEMR	Daracon are to produce an AEMR once production recommences.	NC	S3 cl33 (c)	Daracon are to produce an AEMR to the specification once production recommences.	Not Triggered	There has been no production at the quarry since December 2012. This requirement is therefore has not been triggered since the last audit.
S3 cl34 (b)	Prior to undertaking any works in the Extension Area, the Proponent shall undertake a Road Safety and Condition Audit for the project, to the satisfaction of the Director-General. This audit must: (b) be prepared in consultation with the RTA and Council;	No evidence to show consultation with RTA and Council.	Daracon to forward the Road Safety and Condition Audit to Council and RTA for comments	NC	S3 cl42 (b) - incorrectly referenced	Daracon are to forward the Road Safety and Condition Audit to Council and RMS for comments	Closed	The Auditor inspected the Extension Area, no work has commenced in that area, therefore this Condition has not yet been triggered. Ardglen Management stated that a Road Safety Audit is currently being initiated. A proposal by Crossroads Civil Design dated 22 Aug 2018 sighted by Auditor. The RSA has been completed, including consultation with RMS and LPSC, since the completion of this Audit. Daracon stated the the RSA was submitted to DPE in February 2019.

APPENDIX C AUDIT CHECKLIST					TABLE 4.2		KMH ASSESSMENT	
Clause	Condition	2013 Audit Finding	2013 Audit Recommendation	2013 Compliance Rating	Table 4.2 Condition	Table 4.2 Recommendation	Status	Evidence
S3 cl41	The Proponent may only load a maximum of 2 trains outside the rail loading and distribution hours in Table 1 in any 12 month period, unless agreed to in writing by the Director- General.	No train loading in 2012.	The auditor agrees that Daracon do not have sufficient control of train scheduling to be held accountable for out of hours train loading. The auditor recommends this condition is removed provided Daracon comply with S3 cl42	Complies / Recommendation Only			Closed	The rail spur into the site has been isolated from the main line and is no longer capable of being used.
S3 cl43 (a to d)	Prior to undertaking any works in the Extension Area, the Proponent shall prepare and implement a Traffic and Transport Management Plan, to the satisfaction of the Director- General.	Traffic and Transport Management Plan prepared to the satisfaction of the DG. Traffic and Transport Management Plan has been prepared but not fully implemented. Driver compliance forms not sighted as part of the induction.	Recommendation to remove from from the Traffic and Transport Management Plan.	NC	S3 cl43 (a to d)	Recommendation to remove driver's induction form from the Traffic and Transport Management Plan and include the plan signoff in the induction form.	Closed	The revised Traffic and Transport Management Plan, dated 10 Aug 2018, meets the content requirements of this Condition and includes the Code of Conduct attached as Appendix B. The plan had been approved by DPE via letter dated 10 Aug 2018.
S3 cl43 (c)	The Plan is to include measures that would be taken to avoid night time train loading operations.	Section 4 of the Traffic and Transport Management Plan does not list measures that could be undertaken to avoid night time train loading	No corrective action required. The auditor agrees that Daracon do not have sufficient control of train scheduling to be held accountable for out of hours train loading.	NC			Closed	The rail spur into the site has been isolated from the main line and is no longer capable of being used.
S3 cl44	The Proponent shall: (a) take all practicable measures to mitigate off-site lighting impacts from the project; and (b) ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting, to the Satisfaction of the Director-General.	The auditor is satisfied that the hours of operation are predominantly daylight hours thus mitigating the need for site lighting. There was no evidence produced to demonstrate that external lighting complies with AS4282 (INT) 1995.	An assessment of external lighting against AS4282 (INT) 1995 is required to be submitted to the DG.	NC	S3 cl44	An assessment of external lighting against AS4282 (INT) 1995 is required to be submitted to the DG.	Open	Ardglen management reported that there are no lighting arrangements on-site or off-site. This will be investigated upon recommencement of works.
S3 cl46	The Proponent shall: (a) monitor the greenhouse gas emissions generated by the project; (b) investigate ways to reduce greenhouse gas emissions generated by the project; and (c) report on greenhouse gas monitoring and abatement measures in the AEMR, to the satisfaction of the Director-General.	Diesel usage logs were sighted. Vehicle maintenance logs were sighted. AEMR does not report greenhouse gas monitoring. AEMR not produced in accordance of the specifications.	AEMR is required to be produced according to the specifications and submitted to the relevant authorities/CCC.	NC	S3 cl46		Closed	As per the AEMR section 4.3.4 Table 7, Records of purchase and storage used to determine electricity and fuel consumption. Luke Robinson reported that the site has been under care and maintenance phase from 2012 to 13 Aug 2018 with no recordable greenhouse gas emissions. Recent operations from 14 Aug 2018 involve movement of stockpiled materials out of the site. a) NGERS report has been sighted by Auditors that include monitoring of greenhouse gas emissions generated by all projects under Daracon Holdings. b) and c) Daracon includes greenhouse gas emissions associated with the project in their NGERS reporting however ways to reduce emissions generated by Ardglen Quarry project and other details are not provided in the AEMRs.
S3 cl47 (a)	The Proponent shall: (a) monitor the amount of waste generated by the project;	Amount of waste generated was not monitored. Without any information, the auditor cannot make further assessment of waste management on site.	Daracon's accounting system should be used to track the waste contractors on site.	NC	S3 cl47	Daracon's accounting system should be used to track the waste contractors on site.	Open	Site has been in care and maintenance mode since 2012 till 13 August 2018 and as such no waste had been generated by the project and therefore no records were kept. It is noted that there is plant maintenance and office work currently occurring, therefore wastes will now be generated and therefore a register of waste generation should now be maintained (a

APPENDIX C AUDIT CHECKLIST					TABLE 4.2		KMH ASSESSMENT	
Clause	Condition	2013 Audit Finding	2013 Audit Recommendation	2013 Compliance Rating	Table 4.2 Condition	Table 4.2 Recommendation	Status	Evidence
								register was current waste generation was not provided to the auditor).
S3 cl47 (e)	(e) report on waste management and minimisation in the AEMR, to the satisfaction of the Director-General.	Waste management and minimisation not reported in AEMR	AEMR to be prepared as per S5 cl4	NC	S3 cl 43 (e) - incorrectly referenced	Daracon are to produce an AEMR to the specification once production recommences.	Closed	<p>The 2016 AEMR reported waste produced as part of the demolition of the redundant transformer yard and other non-production wastes and quantities.</p> <p>Evidence of DPE approval of 2016 AEMR sighted via letter dated 19 May 2017 which did not raise any matters related to waste management on site.</p> <p>Site has been in care and maintenance mode since 2012 till 13 August 2018 and as such no operational / production waste generated currently. However, at the time of the audit, it is noted that there is plant maintenance and office work was currently occurring and therefore wastes from those activities are now being generated.</p>
S3 cl48	The Proponent shall ensure that all waste generated or stored on site is assessed, classified and managed in accordance with the DECCW's Waste Classification Guidelines Part 1: Classifying Waste	No evidence was presented regarding waste management. Small amounts of waste (e.g. wood, waste oil drums and old machinery) were stored across the quarry.	It is recommended to have a centralised waste storage area. This area should be constructed so it can contain small spills etc. and stormwater run off is not directed towards Doughboy Hollow Creek.	NC	S3 cl48	A centralised waste storage area should be constructed so it can contain small spills etc. and stormwater runoff is not directed towards Doughboy Hollow Creek.	Closed	A purpose built, centralised waste storage area has not been constructed. However, quarry management asserted that any wastes collected (other than general office and non-hazardous wastes would be stored in the Lube Shed. The Auditor notes that a commercial bulk waste bin has be located on the site for the storage of general wastes.
S4 cl1	<p>Notification to Landowners</p> <p>If the results of monitoring required in Schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria, then the Proponent shall notify the Director- General and the affected landowners and/or existing or future tenants (including tenants of quarry owned properties) accordingly, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the relevant criteria.</p>	Exceedances were noted for noise and vibration, air quality and water quality. Air quality results were reported to the NSW EPA via the required annual returns and were also posted on Daracon's website. It appears that the remaining exceedances have not been reported as required.	Monitoring results are to be reported to the relevant authorities/people in the required timeframes.	NC	S4 cl1	All relevant documents need to be supplied to both the relevant agencies and CCC.	Open	<p>In 2016, dust exceedance on 17th and 23rd April 2016 were reported to DPE. It is noted that this letter is dated 15 Mar 2016.</p> <p>A minor exceedance of dust criteria during February 2016 was reported to EPA via letter dated 15 Mar 2016.</p> <p>This has been included in the 2016 AEMR and discussed at the CCC meeting of 23 Aug 2016. The presentation made to CCC includes depositional dust gauge readings as a chart, indicating the high reading in February 2016 at monitoring station EP4.</p> <p>The minutes of this CCC meeting does not include a reference to the 'minor exceedance' of February 2016 rather notes that "Air monitoring results have reported levels consistently below criteria". The CCC includes four of the landowners in the immediate surroundings of the site.</p> <p>While the presentation to CCC in August 2016 included a chart indicating all dust measurements from May 2017 to May 2016, the chart does not include the compliance criteria and the minutes of the meeting does not refer to the dust exceedance of February 2016 as reported to EPA and DPE.</p>

APPENDIX C AUDIT CHECKLIST					TABLE 4.2		KMH ASSESSMENT	
Clause	Condition	2013 Audit Finding	2013 Audit Recommendation	2013 Compliance Rating	Table 4.2 Condition	Table 4.2 Recommendation	Status	Evidence
S5 cl1	Environmental Management Strategy The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. This strategy must be submitted to the Director-General for approval prior to any works being undertaken in the Extension Area, and	Environmental Management Strategy and approval letter sighted. Evidence of implementation is minimal since the site is not operational.	Environmental Due Diligence Checklist, Environmental inspection Report and EMS Monthly Report need to be completed when the site becomes operational again.	Complies / Recommendation Only	S5 cl1	Environmental Due Diligence Checklist, Environmental Inspection Report and EMS Monthly Report need to be completed.	Not Triggered	Environmental Management Strategy (EMS) Ver.3 for Ardglen Quarry Extension Major Project 06/0264 prepared by Orogen, dated September 2010. As the works have not been initiated in the Extension Area, this document does not need to be approved yet. The DPE's approval of initial EMS, various EMPs and Monitoring Programs is evident in the letter dated 25 Nov 2010, as sighted by Auditors. The Auditor sighted relevant environmental inspection records.
S5 cl10	During the development, the Proponent shall: (a) include a copy of this approval, as may be modified from time to time, on its website; (b) provide a full summary of monitoring results required under this approval on its website; and (c) update these results on a regular basis (at least every 6 months).	S5 cl10 (a) copy of approval not posted on website (b) 2007-2013 dust deposition and January October 2013 HVAS results listed on Daracon website. No water quality or noise monitoring results were listed on website. (c) It is not clear how often these are updated.	All monitoring results are required to be posted on the website.		S5 cl10	All monitoring results are required to be posted on the website.	Closed	A copy of the project approval and environmental monitoring results are available on Daracon Quarries website, as sighted by the Auditors.
S5 cl12	The Proponent shall prepare and implement an Environmental Monitoring Program for the project to the satisfaction of the Director-General. This program must be submitted to the Director-General for approval prior to any works being undertaken in the Extension Area, and consolidate the various monitoring requirements in Schedule 3 of this approval into a single document, and be submitted to the Director-General concurrently with the submission of the relevant monitoring programs / plans.	Environmental Monitoring Program included in audit log document 11. Blast program appeared to be implemented, air quality monitoring program appeared to be partially implemented and site water monitoring program appeared not to be implemented.	NO COMPLIANCE RATING OR RECOMMENDATIONS WERE MADE IN THE 2013 REPORT - the finding should have been a non-compliance	NC (KMH Assessment)	S5 cl12		Closed	Quarterly noise monitoring has recommenced and the required air quality monitoring was undertaken during the Audit period.
S5 cl3	Within 7 days of detecting an exceedance of the limits/performance criteria in this approval or the occurrence of an incident that causes (or may cause) harm to the environment, the Proponent shall report the exceedance /incident to the Department and any relevant agencies. This report must: (a) describe the date, time, and nature of the exceedance/ incident; (b) identify the cause (or likely cause) of the exceedance/ incident; (c) describe what action has been taken to date; and (d) describe the proposed measures to address the exceedance/ incident.	No evidence of noise/dust exceedances notification within 7 days of detection. Daracon asserts that dust exceedances were not a result of quarry operations but rather ARTC track work.	The exceedances are to be reported as required. If complaints are received by the Department or relevant agencies then they will have the information to inform the complainants that the quarry is not at fault. EMS has a system in place to report exceedances. The system is required to be implemented.	NC	S5 cl3	Monitoring exceedances are to be reported as required. If complaints are received by the Department or relevant agencies then they will have the information to inform the complainants that the quarry is not at fault. EMS has a system in place to report exceedances. The system is required to be implemented.	Not Trggered	There was one exceedance during the audit period- in Feb 2016 dust gauge measurements indicating 6.4g/m2 where maximum is 4g/m2 at the D3 dust gauge. This is an exceedance as per Table 10: Long term impact assessment criteria for deposited dust. The breakup of the result was Ash 2.7g/m2 and Combustible Matter 3.7g/m2. The matter was investigated and found that a whipper snipper used for vegetation removal during dry weather had caused air borne dust at the same time the HVAS filters were being changed. Preventive actions to review use of mechanical aids to control vegetation growth around dust gauges and use of non-mechanical aids were proposed. This incident was not deemed to trigger this condition as it did not cause environmental harm (the Auditor concurs with this decision).

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Clause	Condition	2013 Audit Finding	2013 Audit Recommendation	2013 Compliance Rating	Table 4.2 Condition	Table 4.2 Recommendation	Status	Evidence
S5 cl4	Within 12 months of this approval, and annually thereafter, the Proponent shall submit an AEMR to the Director-General and relevant agencies. This report must: (a) identify the standards and performance measures that apply to the project; (b) describe the works carried out in the last 12 months; (c) describe the works that will be carried out in the next 12 months; (d) include a summary of the complaints received during the past year, and compare this to the complaints received in previous years; (e) include a summary of the monitoring results for the project during the past year; (f) include an analysis of these monitoring results against the relevant: limits/criteria in this approval; monitoring results from previous years; and predictions in the EA; (g) identify any trends in the monitoring results over the life of the project; (h) identify and discuss any non-compliance during the previous year; and (i) describe what actions were, or are being, taken to ensure compliance.	AEMR was prepared but not to the specification	Prepare yearly AEMR and report as specified.	NC	S5 cl4	Daracon are to produce an AEMR to the specification once production recommences.	Closed	AEMRs for 2014-2017 Daracon email to DPE dated 28 March 2018, with subject: Daracon Ardglen Quarry - 2017 Annual Environmental report (AEMR) DPE Letter dated 19 May 2017 titled "Ardglen Quarry Extension MP06_0264 Annual Environmental Management Report 2016"
S5 cl5	Prior to 31 December 2012, and every 5 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must: (a) be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been endorsed by the Director-General; (b) assess the environmental performance of the project, and its effects on the surrounding environment; (c) assess whether the project is complying with the relevant standards, performance measures, and statutory requirements; (d) review the adequacy of any strategy/plan/ program required under this approval; and, if necessary, (e) recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval. Note: This audit	Audit not commissioned until December 2013. Parts (a)-(e) comply as per this audit report	The quarry is currently not operational. It is recommended that a follow up site visit is conducted 6 months following the recommencement of production if this date occurs before 31 December 2017.	NC	S5 cl5	The quarry is currently not operational. It is required that a follow up site visit by the auditor is conducted 6 months following the recommencement of production if this date occurs before 31 December 2017.	Not Triggered	The action related to the 2014 recommendation was not triggered as production at the quarry has not been restarted.

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	team must be led by a suitably qualified auditor, and include experts in the field of noise and rehabilitation.							
S5 cl9	Within 3 months of the approval of any plan/ strategy/program required under this approval (or any subsequent revision of these plans/ strategies/programs), or the completion of the audits or AEMRs required under this approval, the Proponent shall: (a) provide a copy of the relevant document/s to the relevant agencies and CCC; and (b) put a copy of the relevant document/s on its website.	S5cl9 (a) copies not provided to relevant agencies or CCC. (b) copies not loaded on website	All relevant documents need to be supplied to both the relevant agencies and CCC.	NC	S5 cl9	All relevant documents need to be supplied to both the relevant agencies and CCC.	Closed	Traffic and Transport Management Plan / program has recently been revised and was approved by DPE on 10 August 2018. Daracon should provide a copy of this document to relevant agencies and CCC and make it available on the website. It is noted that at the time of the audit, the three-month time from approval to distribution of the report had not been exceeded. All current plans and reports are available on the Quarry Website.
SoC3	In accordance with Section 1041A of the EP&A Act, the proponent will surrender the existing development consent applying to Lot 1 DP 1001734, issued by Murrurundi Shire Council in May 1994 (Within two years of work commencing within the extension area.)	Development consents or continuing use rights for the Ardglen Quarry have not been surrendered.	Daracon to-surrender all development consents as soon as practicable.	NC			Closed	DPE letter regarding recommencement of operations confirms that all development consents and continuing use rights were surrendered by Daracon Quarries as noted in a DPE letter of 20 Aug 2015.
SoC4	The proponent will prepare and implement an Environmental Management System (EMS) based on AS/NZA ISO 14001:2004 - Environmental Management Systems. The EMS will: incorporate an operational Environmental Management Plan (EMP); detail potential environmental risks due to operation of the proposed quarry; provide measures for the prevention, minimisation and management of these impacts to within acceptable limits; and provide a means for the project to improve environmental performance and move toward environmental sustainability.	No formalised Environmental Management System based on AS/NZA ISO 14001:2004 - Environmental Management Systems exists for the quarry.	Daracon have a corporate environmental management system which should be able to be implemented on site.	NC	SoC4	Daracon's environmental management system should be implemented on site	Closed	Daracon has prepared an EMP for Ardglen Quarry, which has been certified by SAI Global to ISO 14001 with Licence CEM C10016 - Rev 2 is dated 1 December 2010 Environmental Management Strategy (EMS) Ver.3 for Ardglen Quarry Extension Major Project 06/0264 prepared by Orogen, dated September 2010.
SoC7					SoC7	Daracon should consider additional measures to control wild goats as the fencing is not considered sufficient control.	Open	During the audit inspection, the Auditor witnessed goats accessing the off-set area through a gap underneath the area fence.
Soc8	The Proponent will make suitable arrangements to provide long term security for the off-set areas to the satisfaction of the Director-General.	Section 4.9 of the LMP states "Daracon is committed to securing the long-term security of the offset sites by November 2011 either through a Voluntary Conservation Agreement (VCA) with the NSW Minister of Environment, Climate Change and Water (DECCW) or via other mechanisms." No Voluntary Conservation Agreement or other mechanisms have been implemented to date.	A VCA, or similar mechanism should be implemented as soon as practicable.	NC			Open	Daracon has not provided financial security for the off-set areas. They are in the process of applying for section 88B [Conveyance Act 1919] instrument to create an easement over the offset areas to protect those areas. The Auditor sighted the application for the easement and understands that the application had yet to be submitted.

APPENDIX C AUDIT CHECKLIST					TABLE 4.2		KMH ASSESSMENT	
Clause	Condition	2013 Audit Finding	2013 Audit Recommendation	2013 Compliance Rating	Table 4.2 Condition	Table 4.2 Recommendation	Status	Evidence
SoC9 and EA6.4	The surge bins will be lined with latex or polymer liners to reduce impulsive noise; a sheet metal enclosure will be built around the rail loader discharge and extend to include the rail wagon being loaded. The enclosure will be constructed of sheet metal and will cover the length of a minimum of three wagons whereby the wagon being loaded will be in the centre of the enclosure. The enclosure will be open at the ends and will contain a roof which is connected to the rail loader discharge. Gaps between the loader discharge and the roof will be sealed; the two scrapers initially assigned for over burden stripping will be replaced by one excavator and two articulated dump trucks; the existing three crushers will be acoustically treated by extending the metal cladding on the crusher and screening station to ground level with no gaps or openings; the existing screens will be located behind earth bunds; and mobile acoustic barriers or earth mounds will surround the drill rig and any mobile plant situated on the surface during initial stripping; and where land slopes away from stripping activities to receivers, barriers will be raised to a height of 4m, so there is no direct line of sight to receivers.	The screen decks have been lined but the surge bin has not been lined Other noise control elements have not been implemented including the construction of the enclosure for the rail loader and treatment of crushing plant. Much of the specified treatment is now redundant because of the proposed changes in operational procedures and methods.	Review specified Noise control treatments and re-evaluate need for each as part of updated NMP. Redesign noise treatments accordingly to match new operating methods and procedures	NC			Not Triggered	No rock processing had been undertaken during the Audit period and the rail loading facility is not operational (the rail spur has been disconnected from the main rail line).
SoC9					SoC9	The Quarry induction does not specifically address the speed limits and should be amended to include a specific mention of speed limits for noise control purposes.	Closed	The Traffic and Transport Code of Practice has been prepared and communicated to all drivers and contractors (confirmed in Induction Training Records)
Soc9					Soc9	Blast SWMS should be updated to ensure that appropriate communications and fly rock protection are in place for blasting a within 500 m of adjacent land. It would be wise to make this a standard provision for all blasts since much of the quarry is with 500 m of adjacent land.	Open	No blasting was undertaken during the audit period. No blasting is currently planned. Daracon stated that they would update the SWMS if future plans include blasting.
Soc10	Soc10 Except during the night-time rail loading activities the proponent will ensure that the noise generated by the project does not exceed the levels set out in Table 2, at any privately-owned residence, unless a specific agreement is reached with the land holder, in which case the proponent may exceed the noise limits set out in Table 2 in accordance with the negotiated noise agreement.	Reasonable and feasible not implemented	Satisfactory Noise Control works are to be implemented before operations recommence	No	SoC10	Satisfactory Noise Control works are to be implemented before operations recommence.	Not Triggered	Following an inspection of the site, DPE wrote to Daracon on11 July 2018. DPE stated in that letter, that the quarterly noise monitoring required by the Daracon's Noise Monitoring Program had not been undertaken. The Auditor understands that annual noise monitoring was, however undertaken. It is the Auditor's opinion that during the care and maintenance period that an exceedance of the noise criteria would be unlikely as no fixed equipment or heavy plant were being operated. However, the lack of monitoring data prevents verification of that opinion.

APPENDIX C AUDIT CHECKLIST					TABLE 4.2		KMH ASSESSMENT	
Clause	Condition	2013 Audit Finding	2013 Audit Recommendation	2013 Compliance Rating	Table 4.2 Condition	Table 4.2 Recommendation	Status	Evidence
								<p>The referenced AEMRs indicate that quarterly noise monitoring was not undertaken during the Care and Maintenance period. Attended noise monitoring was undertaken on 14 December 2017 by Spectrum Acoustics at locations 4, 13, 14 and 16, the results of which indicated compliance with the specified criteria.</p> <p>This testing was confirmed by the unattended noise monitoring from environmental noise loggers set up and located on the quarry fence line in the vicinity of location 14 and to the west of the fence at location 16 from 14 to 20 December, 2017.</p> <p>At the time of the inspection the only planned (and currently occurring activity) was the removal of previously processed gravel - using an excavator to load trucks.</p> <p>No excavation or crushing was being undertaken.</p>
SoC13	The proponent will prepare and implement an air quality monitoring program for the project: The project will include: a series of dust deposition gauges operated in accordance with Australian/New Zealand Standard AS/NZS380.10.1:2003 a series of high volume and low volume air samplers to monitor levels of PM10, in accordance with Australian/New Zealand Standard AS/NZS 380.9.6:2003 and AS/NZS 3580.9.62003	AQMP was written to satisfy the requirements of SOC13 including the use of the low volume air samplers. No evidence of low volume sampling was supplied. It is not fully implemented.	The auditor recommends the AQMP is updated to remove requirement of low volume air sampling	NC	SoC13	The auditor recommends the AQMP is updated to remove requirement of low volume air sampling.	Closed	The current version (Sept 2018) has been updated to reflect monitoring that is being undertaken.
SoC23	Annual Reporting The proponent will prepare and submit to the Director-General an Annual Environmental Management Report (AEMR). The AEMR will: <ul style="list-style-type: none"> include a summary of the environmental monitoring results for the project for the past year; include an analysis of the monitoring results against relevant limits/criteria and monitoring results from previous years; and identify and discuss any non-compliances during the past year and detail any actions taken to ensure compliance. 	AEMR was prepared but not to the specification	Prepare yearly AEMR and report as specified.	NC			Closed	<p>AEMRs for 2014-2017</p> <p>Daracon email to DPE dated 28 March 2018, with subject: Daracon Ardglen Quarry - 2017 Annual Environmental report (AEMR)</p> <p>DPE Letter dated 19 May 2017 titled "Ardglen Quarry Extension MP06_0264 Annual Environmental Management Report 2016"</p>

5. Limitations

This section should be read before reliance is placed on any of the opinions, advice, recommendations or conclusions herein set out.

This report has been prepared for and at the request of Buttai Gravel Pty Limited – Daracon Quarries (The Client) pursuant to their appointment of Pitt & Sherry (Operations) Pty Ltd, (**pitt&sherry**), to act as its Independent Environmental Auditor. Save for the Client, no duty is undertaken or warranty or representation made to any party in respect of the opinions, advice, recommendations or conclusions herein set out.

Regard should be had to the terms and conditions of **pitt&sherry's** Proposal when considering this report and reliance to be placed on it.

All work carried out in preparing this report has used, and is based upon, **pitt&sherry's** professional knowledge and understanding of the current relevant environmental legislation.

Changes in the below may cause the opinion, advice, recommendations or conclusions set out in this report to become inappropriate or incorrect. **pitt&sherry** will have no obligation to advise the Client of any such changes, or of their repercussions.

This report is based on observations during the Environmental Audit and information provided by the client. The information collected during the audit is believed to be true and is solely based on visual inspection (or site conditions and documentation presented) and information provided by the auditee. **pitt&sherry** is of the belief that all the information provided by the auditee is correct and true at the time of the audit.








Assessment of the adequacy of any environmental management strategies, plans and programs was limited to a brief desktop review only with regards to the Audit Scope. The EMS was not reviewed against ISO14001.

The content of this report represents the professional opinion of experienced environmental consultants. **pitt&sherry** does not provide specialist legal advice and the advice of appropriate legal professionals may be required.

Appendix A

Site Photographs

Appendix A – Site Photographs

	
<p>Site safety warning</p>	<p>Newly installed wheelwash in operation</p>
	
<p>Disused rail line in the foreground</p>	<p>Disused rail line and access road</p>
	
	<p>Truck tyre tracks from the wheelwash system</p>
	
	<p>Wheelwash system</p>



Decommissioned shed and areas



Decommissioned asbestos containing electrical systems marked off within the shed



Waste materials






Decommissioned transformer pad area










Disused fuel tank



Site moving plant

	
	Primary dam
	
	
	









	
	
	
	<p>Timber on extension area</p>
	

Extension Area	Fence between extension area and offset area
	Moving plant and stockpile of material





Discontinued rail line and dispatch plant	
	Dust gauges

	
	
Doughboy Hollow Creek	
	
Culvert across Doughboy Hollow Creek	
	



Appendix B

Compliance Registers

Ardglen Quarry Extension Independent Environmental Audit Detailed Findings and Recommendations Development Consent 06_0264 Blue type represents December 2010 modification (MOD 1)					
Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation
1. Schedule 2, Administrative Conditions Obligation to Minimise Harm to the Environment					
1	Obligation to Minimise Harm to the Environment The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.	Noted			
Terms of Approval					
2	Terms of Approval The Proponent shall carry out the project generally in accordance with the: (a) EA; (b) statement of commitments; and (c) conditions of this approval. Note: The general layout of the project is shown in Appendix 1.	Noted			
3	Terms of Project Approval If there is any inconsistency between the above documents, the conditions of this consent shall prevail to the extent of any inconsistency.	Noted			
4	Terms of Project Approval The Proponent shall comply with any reasonable and feasible requirement/s of the Director-General arising from the Department's assessment of: (a) any reports, plans, programs, strategies or correspondence that are submitted in accordance with this approval; and (b) the implementation of any actions or measures contained in these reports, plans, programs, strategies or correspondence.	Compliant	DPE letter regarding recommencement of operations has specified the requirements (below), to be met prior to commencing the loading and transport of material off-site: Schedule 3, condition 43 - Traffic and transport management plan. The Traffic Management Plan has been revised and submitted to DPE. DPE has reviewed and approved the revised TTMP via correspondence dated 10 Aug 2018. Schedule 3, Condition 34 - Road safety audit report to be submitted by 31 Oct 2018. The road safety audit had not been commissioned at the time of the audit. A consultants proposal had been received (sighted by the auditor). Schedule 3, Condition 6 - Noise monitoring program to be updated by 14 September 2018. Daracon reported that a consultant had been commissioned to review and update the Plan. Schedule 3, Condition 17 - Air quality monitoring program to be reviewed and updated by 14 September 2018. Daracon reported that a consultant had been commissioned to review and update the Plan. Additionally, DPE required that the wheelwash as installed should be operational -prior to the recommencement of operations. The wheelwash has been in operation since 14 August 2018. Daracon reported that the wheelwash is served with fresh water from the on-site stormwater dam and water after use is pumped out for dust suppression on site on a regular basis. The Auditor observed the wheel wash in operation.	DPE letter titled "Arglen Quarry Extension Project MP 06_0264 Recommencement of Operations" dated 9 Aug 2018. Crossroads Civil Design proposal dated August 2018 for Road Safety Audit. Inspection of wheel wash operating by Auditor.	
Limits of Approval					
5	Limits of Approval This approval expires on 31 August 2038. Note: Under this approval, the Proponent is required to rehabilitate the site and implement biodiversity offsets to the satisfaction of the Director-General. Consequently, this approval will continue to apply in all other respects other than the right to conduct extractive operations until the site has been rehabilitated and the biodiversity offset provided to a satisfactory standard.	Not Triggered			
6	Limits of Approval The Proponent shall not extract or process more than 500,000 tonnes of material on the site each year.	Compliant	During 2014-2017 the Quarry has been "in Care & Maintenance" phase with no extraction/operations conducted at the site. Transportation of stockpiled material has recommenced as of 14 August 2018 within allowed limits.	AEMR for 2014, 2015, 2016, 2017	

7	Limits of Approval The Proponent shall not transport more than: (a) 250,000 tonnes of product from the site by rail a year; or (b) 250,000 tonnes of product from the site by road a year.	Compliant	During 2014-2017 the Quarry has been "in Care & Maintenance" phase with no extraction/operations conducted at the site.	AEMR for 2014, 2015, 2016, 2017	
8	Limits of Approval The Proponent shall not import more than 80,000 tonnes of materials for the purposes of blending and product quality improvement each year.	Compliant	During 2014-2017 the Quarry has been "in Care & Maintenance" phase with no extraction/operations conducted at the site.	AEMR for 2014, 2015, 2016, 2017	
Surrender of Consents					
9	Surrender of Consents Within 3 years of this approval, the Proponent shall surrender all development consents or continuing use rights for the Ardglen Quarry, to the satisfaction of the Director-General.	Compliant	DPE letter regarding recommencement of operations confirms that all development consents and continuing use rights were surrendered by Daracon Quarries as noted in a DPE letter of 20 Aug 2015.	DPE letter dated 20 August 2015 - Surrender of Consent DPE letter dated 9 Aug 2018 regarding recommencement	
Management Plans/Monitoring Programs					
10	Management Plans/Monitoring Programs With the approval of the Director-General, the Proponent may submit any management plan or monitoring program required by this approval on a progressive basis.	Compliant	Traffic and Transport Management Plan (dated 10 Aug 2018) has been revised and submitted to DPE. DPE has reviewed and approved the revised TTMP via correspondence dated 10 Aug 2018. As per response by Luke Robinson, Air Quality Management Plan and Noise Management Plan are currently under review. Road Safety Audit is currently in the process of being engaged.	Site audit interview; AEMR for 2014, 2015, 2016, 2017 DPE letter dated 10 Aug 2018 titled "Ardglen Quarry Extension Project (MP 06-0264) Traffic and Transport Management Plan Crossroads Civil Design proposal dated August 2018 for Road Safety Audit. Traffic and Transport Management Plan rev 4 dated 10 Aug 2018	
Structural Adequacy					
11	Structural Adequacy The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the Building Code of Australia (BCA). Notes: • Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works. • Part 8 of the EP&A Regulation sets out the requirements for the certification of development.	Compliant	Luke Robinson reported that there has been no new construction or alterations to the site. During the site inspection the Auditor did not observe any new buildings or structures. While the wheel wash is a relatively recent addition to the site, that unit has been leased and is not covered by the BCA	AEMR for 2014, 2015, 2016, 2017 Site audit interview	
Demolition					
12	Demolition The Proponent shall ensure that all demolition work is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.	Compliant	There has been limited demolition work associated with the transformer and electricity control room near the primary and secondary crusher units that have been decommissioned. Asbesots removal was required as part of the removal of electrical panels and oil contaminaed soil remediation was required in the vicinity of the transformer pad. Documentation covering these activitied, including a Development approval from Council was sighted by teh Auditor. The Auditor understands that the existing crusher units, and assocaited equipment will be removed from site (scrapped) and potentially replaced with new equipment at some time in the future.	2016 AEMR Appendix 7 includes Demolition of Structures Approval (31 Dec 2016) from Liverpool Plains Shire Council to Monteath Powys Pty Ltd. General Terms of Approval by DPI Water for DA Number DA2015/31 was also included in 2016 AEMR. Asbestos clearance report by Panacea Occcupatonal Safety & Health (24 Feb 2016). Transformer pad validation report by JM Environments (validating remediation works oil leak impacted soil pad, 30 March 2016). SIMS Metal invoice (29 Feb 2016) and MES Demolition Pty Ltd waste docket (25 Feb 2016) sighted covering off-site disposal of materials.	

Operation of Plant and Equipment					
13	<p>Operation of Plant and Equipment</p> <p>The Proponent shall ensure that all plant and equipment used at the site is:</p> <p>(a) maintained in a proper and efficient condition; and</p> <p>(b) operated in a proper and efficient manner.</p>	Compliant	<p>No fixed operational equipment has been operated on the site since the quarry was placed into care and maintenance mode.</p> <p>From 14th August 2018, a front-end loader and an excavator have been operated to move stockpiled material and load trucks. Refueling of the moving plant is undertaken by a sub-contractor. There was no on-site fuel storage at the time of the audit.</p> <p>Subcontractor owned and maintained trucks remove the material from the quarry to a road construction site near Scone. Truck movements are monitored and recorded in register.</p> <p>Moving plant maintenance records were sighted by the Auditor. All plant in use at the time of the audit appeared to be well maintained.</p>	<p>AEMR for 2014, 2015, 2016, 2017</p> <p>Audit observations</p> <p>Site plant maintenance register.</p> <p>Ardglen Sales August 2018 truck register</p>	

Protection of Public Infrastructure																																							
14	Protection of Public Infrastructure The Proponent shall: (a) repair, or pay all reasonable costs associated with repairing any public infrastructure that is damaged by the project; and (b) relocate, or pay all reasonable costs associated with relocating any public infrastructure that needs to be relocated as a result of the project.	Not Triggered	There has been no relocation of or damage to public infrastructure during the audit period.	AEMR for 2014, 2015, 2016, 2017 Audit observations																																			
Revision of Strategies, Plans or Programs																																							
15	Revision of Strategies, Plans or Programs Within 3 months of any modification to this approval, the Proponent shall review and if necessary revise all management and monitoring strategies, plans and programs required under this approval which are relevant to the modification to the satisfaction of the Director-General.	Compliant	There have been no modifications to the Approval since 2010. This has been confirmed by a review of the DP&E Website.	AEMR for 2014, 2015, 2016, 2017 DP&E Website																																			
2. Schedule 3, Specific Environmental Conditions																																							
Hours of Operation																																							
1	Hours of Operation The Proponent shall comply with the hours of operation in Table 1. Table 1: Hours of Operation <table><tr><th>Activity</th><th>Day</th><th>Time</th></tr><tr><td rowspan="2">Topsoil/overburden removal/emplacement</td><td>Monday-Saturday</td><td>7.00am to 5.00pm</td></tr><tr><td>Sunday</td><td>None</td></tr><tr><td rowspan="2">Blasting</td><td>Monday-Friday</td><td>10:00pm to 3.00pm</td></tr><tr><td>Saturdays, Sundays and Public Holidays</td><td>None</td></tr><tr><td rowspan="2">In-pit activities (including drilling, extraction, and transfer of material out of the pit)</td><td>Monday-Saturday</td><td>7.00am to 5:30pm</td></tr><tr><td>Sundays and Public Holidays</td><td>None</td></tr><tr><td rowspan="2">Out-of-pit activities (including processing, and stockpiling)</td><td>Monday-Saturday</td><td>7.00am to 5:30pm</td></tr><tr><td>Sundays and Public Holidays</td><td>None</td></tr><tr><td>Maintenance (if inaudible at nearby residences)</td><td>Monday-Sunday</td><td>Any time</td></tr><tr><td rowspan="2">Truck loading and distribution</td><td>Monday-Saturday</td><td>6.30am to 5.30pm</td></tr><tr><td>Sundays and Public Holidays</td><td>None</td></tr><tr><td>Rail loading</td><td>Monday-Sunday</td><td>7:00am to 10:00pm</td></tr></table> Note: •The Proponent may load no more than 2 trains each year outside the hours listed in Table 1 (see condition 41). •The Proponent may carry out blasting operations outside the hours listed in Table 1 for safety reasons provided, the Proponent has notified DECCW and the local community about the proposed blast.	Activity	Day	Time	Topsoil/overburden removal/emplacement	Monday-Saturday	7.00am to 5.00pm	Sunday	None	Blasting	Monday-Friday	10:00pm to 3.00pm	Saturdays, Sundays and Public Holidays	None	In-pit activities (including drilling, extraction, and transfer of material out of the pit)	Monday-Saturday	7.00am to 5:30pm	Sundays and Public Holidays	None	Out-of-pit activities (including processing, and stockpiling)	Monday-Saturday	7.00am to 5:30pm	Sundays and Public Holidays	None	Maintenance (if inaudible at nearby residences)	Monday-Sunday	Any time	Truck loading and distribution	Monday-Saturday	6.30am to 5.30pm	Sundays and Public Holidays	None	Rail loading	Monday-Sunday	7:00am to 10:00pm	Compliant	The following Table 1 activities are not undertaken at the site during care and maintenance mode: - Topsoil/overburden removal / emplacement - Blasting - Drilling, extraction and transfer of material out of the pit - Processing and stockpiling of material - Audible (off-site) maintenance activities - Rail loading Recent recommencement of the loading and transport from site of previously stockpiled material has been undertaken only during approved operational hours. This was confirmed by the Environmental Manager (Luke Robinson) and verified by the records of truck movement (register) reviewed by the Auditor. Truck movement register sighted - entries for dates 15th August and 17th August were inspected. Truck (load out) docket book inspected - 17th August dockets from 101371 to 101398. There were no train loading or blasting operations during the audit period. The auditor noted that the rail spur from the site is no longer connected to rail line and therefore loadout by train is not possible. A review of historical aerial photographs has confirmed that no quarrying has occurred during the audit period.	AEMR for 2014, 2015, 2016, 2017 Truck movement register (on site) Truck loading docket book (on site) signed by truck driver - docket numbers 101371 - 101398 (17 Aug 18) 101344 - 101370 (16 Aug 18) Auditor Observations. Google Maps Historical Aerial Photographs.	
Activity	Day	Time																																					
Topsoil/overburden removal/emplacement	Monday-Saturday	7.00am to 5.00pm																																					
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2	<p>Noise Impact Assessment Criteria</p> <p>The Proponent shall ensure that the noise generated by the project does not exceed the noise impact assessment criteria in Table 2 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.</p> <p>Table 2: Noise impact assessment criteria dB(A)</p> <table><tr><th rowspan="2">Land</th><th>Day</th><th>Evening</th><th colspan="2">Night</th></tr><tr><th>L_{Aeq}(15 min)</th><th>L_{Aeq}(15 min)</th><th>L_{Aeq}(15 min)</th><th>L_{A1}(1 min)</th></tr><tr><td>1 – Burraston</td><td>35</td><td>35</td><td>35</td><td>45</td></tr><tr><td>3 – Rose</td><td>35</td><td>35</td><td>35</td><td>45</td></tr><tr><td>4 – CM Thompson</td><td>44</td><td>35</td><td>35</td><td>45</td></tr><tr><td>5 – M Taylor</td><td>45</td><td>35</td><td>35</td><td>45</td></tr><tr><td>6 – S Thompson</td><td>45</td><td>35</td><td>35</td><td>45</td></tr><tr><td>9 – Bates</td><td>37</td><td>35</td><td>35</td><td>45</td></tr><tr><td>10 – Avery</td><td>38</td><td>35</td><td>35</td><td>45</td></tr><tr><td>11 – Shipman</td><td>37</td><td>35</td><td>35</td><td>45</td></tr><tr><td>12 – Hall</td><td>36</td><td>35</td><td>35</td><td>45</td></tr><tr><td>13 – McGhie</td><td>35</td><td>35</td><td>35</td><td>45</td></tr><tr><td>14 – Purtell</td><td>36</td><td>35</td><td>35</td><td>45</td></tr><tr><td>15 – J Taylor</td><td>43</td><td>35</td><td>35</td><td>45</td></tr><tr><td>16 – Bojba</td><td>40</td><td>35</td><td>35</td><td>45</td></tr><tr><td>All other privately-owned land</td><td>35</td><td>35</td><td>35</td><td>45</td></tr></table> <p>However, if the Proponent has a written negotiated noise agreement with any landowner of the land listed in Table 2, and a copy of this agreement has been forwarded to the Department and DECCW, then the Proponent may exceed the noise limits in Table 2 in accordance with the negotiated noise agreement. The Proponent may also exceed the LA1(1 min) and LAeq(15 min) noise impact assessment criteria during out of hours rail loading activities provided they are conducted in accordance with condition 41 below.</p> <p>Notes:</p> <ul style="list-style-type: none">• For information on the numbering and identification of properties used in this approval see Appendix 5.• To determine compliance with the LAeq(15 minute) noise limits, noise from the project is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the project is impractical, the DECCW may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.• To determine compliance with the LA1(1 minute) noise limits, noise from the project is to be measured at 1 metre from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the project is impractical, the DECCW may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy).• The noise emission limits identified in the above table apply under meteorological conditions of:<ul style="list-style-type: none">- wind speeds of up to 3 m/s at 10 metres above ground level; or- temperature inversion conditions of up to 3°C/100m, and source to receiver gradient wind speeds of up to 2 m/s at 10 metres above ground level.	Land	Day	Evening	Night		L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{A1} (1 min)	1 – Burraston	35	35	35	45	3 – Rose	35	35	35	45	4 – CM Thompson	44	35	35	45	5 – M Taylor	45	35	35	45	6 – S Thompson	45	35	35	45	9 – Bates	37	35	35	45	10 – Avery	38	35	35	45	11 – Shipman	37	35	35	45	12 – Hall	36	35	35	45	13 – McGhie	35	35	35	45	14 – Purtell	36	35	35	45	15 – J Taylor	43	35	35	45	16 – Bojba	40	35	35	45	All other privately-owned land	35	35	35	45	Observation	<p>Following an inspection of the site, DPE wrote to Daracon on 11 July 2018. DPE stated in that letter, that the quarterly noise monitoring required by the Daracon's Noise Monitoring Program had not been undertaken. The Auditor understands that annual noise monitoring was, however undertaken.</p> <p>It is the Auditor's opinion that during the care and maintenance period that an exceedance of the noise criteria would be unlikely as no fixed equipment or heavy plant were being operated. However the lack of monitoring data prevents verification of that opinion.</p> <p>The referenced AEMRs indicate that quarterly noise monitoring was not undertaken during the Care and Maintenance period. Attended noise monitoring was undertaken on 14 December 2017 by Spectrum Acoustics at locations 4, 13, 14 and 16, the results of which indicated compliance with the specified criteria.</p> <p>This testing was confirmed by the unattended noise monitoring from environmental noise loggers set up and located on the quarry fence line in the vicinity of location 14 and to the west of the fence at location 16 from 14 to 20 December, 2017.</p> <p>There has been no written negotiated noise agreement with any landowners.</p> <p>A breach has been noted (no further enforcement action) by DPE as per email notification by DPE regarding lack of quarterly noise monitoring being undertaken against the Noise Monitoring Program.</p> <p>As per the specialist noise consultant report for the December 2017 noise monitoring report included in AEMR 2017, the required procedures were followed for undertaking noise monitoring. The environmental conditions are noted to be within the required levels.</p>	<p>DPE review of AEMR 2017 (31 May 2018).</p> <p>Email letter from DPE Senior Compliance Officer dated 11 July 2018.</p> <p>AEMR 2017.</p> <p>Spectrum Acoustics Noise Monitoring Report.</p> <p>DPE review of AEMR 2017 (31 May 2018)</p> <p>Email letter from DPE Senior Compliance Officer dated 11 July 2018.</p> <p>AMER 2017.</p> <p>Spectrum Acoustics Noise Monitoring Report.</p>	Recommendation - recommence quarterly noise monitoring and reporting.
Land	Day		Evening	Night																																																																																
	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{A1} (1 min)																																																																																
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All other privately-owned land	35	35	35	45																																																																																

3	<p>Land Acquisition Criteria</p> <p>If the noise generated by the project exceeds the criteria in Table 3 at any residence on privately-owned land or on more than 25 percent of any privately-owned land, the Proponent shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 7-9 of Schedule 4.</p> <p>Table 3: Land acquisition criteria dB(A)</p> <table><tr><th><i>Land</i></th><th><i>Day</i> <i>L_{Aeq}(15 min)</i></th><th><i>Evening</i> <i>L_{Aeq}(15 min)</i></th><th><i>Night</i> <i>L_{Aeq}(15 min)</i></th></tr><tr><td>1 – Burraston</td><td>40</td><td>40</td><td>40</td></tr><tr><td>3 – Rose</td><td>46</td><td>40</td><td>40</td></tr><tr><td>4 – CM Thompson</td><td>46</td><td>40</td><td>40</td></tr><tr><td>5 – M Taylor</td><td>46</td><td>40</td><td>40</td></tr><tr><td>6 – S Thompson</td><td>46</td><td>40</td><td>40</td></tr><tr><td>9 – Bates</td><td>46</td><td>40</td><td>40</td></tr><tr><td>10 – Avery</td><td>46</td><td>40</td><td>40</td></tr><tr><td>11 – Shipman</td><td>46</td><td>40</td><td>40</td></tr><tr><td>12 – Hall</td><td>46</td><td>40</td><td>40</td></tr><tr><td>13 – McGhie</td><td>40</td><td>40</td><td>40</td></tr><tr><td>14 – Purtell</td><td>46</td><td>40</td><td>40</td></tr><tr><td>15 – J Taylor</td><td>46</td><td>40</td><td>40</td></tr><tr><td>16 – Bojba</td><td>46</td><td>40</td><td>40</td></tr><tr><td>All other privately-owned land</td><td>40</td><td>40</td><td>40</td></tr></table> <p>However, if the Proponent has a written negotiated noise agreement with any landowner of the land listed in Table 3, and a copy of this agreement has been forwarded to the Department and DECCW, then the Proponent may exceed the noise limits in Table 3 in accordance with the negotiated noise agreement. The Proponent may also exceed the land acquisition criteria during out of hours rail loading activities provided they are conducted in accordance with condition 41 below.</p>	<i>Land</i>	<i>Day</i> <i>L_{Aeq}(15 min)</i>	<i>Evening</i> <i>L_{Aeq}(15 min)</i>	<i>Night</i> <i>L_{Aeq}(15 min)</i>	1 – Burraston	40	40	40	3 – Rose	46	40	40	4 – CM Thompson	46	40	40	5 – M Taylor	46	40	40	6 – S Thompson	46	40	40	9 – Bates	46	40	40	10 – Avery	46	40	40	11 – Shipman	46	40	40	12 – Hall	46	40	40	13 – McGhie	40	40	40	14 – Purtell	46	40	40	15 – J Taylor	46	40	40	16 – Bojba	46	40	40	All other privately-owned land	40	40	40	Not Triggered	There were no blasting on site during the audit period.	AEMR 2014, 2015, 2016 and 2017.	
<i>Land</i>	<i>Day</i> <i>L_{Aeq}(15 min)</i>	<i>Evening</i> <i>L_{Aeq}(15 min)</i>	<i>Night</i> <i>L_{Aeq}(15 min)</i>																																																														
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All other privately-owned land	40	40	40																																																														
4	<p>Additional Noise Mitigation</p> <p>Upon receiving a written request from the owner of any privately-owned residence where subsequent noise monitoring shows the noise generated by the project is greater than the relevant criteria in Table 4, the Proponent shall implement additional noise mitigation measures such as double glazing, insulation, and/or air conditioning at any residence on the land in consultation with the landowner.</p> <p>Table 4: Additional Noise Mitigation Criteria dB(A)</p> <table><tr><th><i>Land</i></th><th><i>Day</i> <i>L_{Aeq}(15 min)</i></th><th><i>Evening</i> <i>L_{Aeq}(15 min)</i></th><th><i>Night</i> <i>L_{Aeq}(15 min)</i></th></tr><tr><td>1 – Burraston</td><td>38</td><td>38</td><td>38</td></tr><tr><td>3 – Rose</td><td>44</td><td>38</td><td>38</td></tr><tr><td>4 – CM Thompson</td><td>44</td><td>38</td><td>38</td></tr><tr><td>5 – M Taylor</td><td>44</td><td>38</td><td>38</td></tr><tr><td>6 – S Thompson</td><td>44</td><td>38</td><td>38</td></tr><tr><td>9 – Bates</td><td>44</td><td>38</td><td>38</td></tr><tr><td>10 – Avery</td><td>44</td><td>38</td><td>38</td></tr><tr><td>11 – Shipman</td><td>44</td><td>38</td><td>38</td></tr><tr><td>12 – Hall</td><td>44</td><td>38</td><td>38</td></tr><tr><td>13 – McGhie</td><td>38</td><td>38</td><td>38</td></tr><tr><td>14 – Purtell</td><td>44</td><td>38</td><td>38</td></tr><tr><td>15 – J Taylor</td><td>44</td><td>38</td><td>38</td></tr><tr><td>16 – Bojba</td><td>44</td><td>38</td><td>38</td></tr><tr><td>All other privately-owned land</td><td>38</td><td>38</td><td>38</td></tr></table> <p>These additional mitigation measures must be reasonable and feasible.</p> <p>If within 3 months of receiving this request from the landowner, the Proponent and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution.</p> <p>Within 3 months of this approval, the Proponent shall notify all applicable landowners of their rights under this condition, to the satisfaction of the Director-General.</p>	<i>Land</i>	<i>Day</i> <i>L_{Aeq}(15 min)</i>	<i>Evening</i> <i>L_{Aeq}(15 min)</i>	<i>Night</i> <i>L_{Aeq}(15 min)</i>	1 – Burraston	38	38	38	3 – Rose	44	38	38	4 – CM Thompson	44	38	38	5 – M Taylor	44	38	38	6 – S Thompson	44	38	38	9 – Bates	44	38	38	10 – Avery	44	38	38	11 – Shipman	44	38	38	12 – Hall	44	38	38	13 – McGhie	38	38	38	14 – Purtell	44	38	38	15 – J Taylor	44	38	38	16 – Bojba	44	38	38	All other privately-owned land	38	38	38	Not Triggered	Quarry Management stated that no requests for noise monitoring have been received.	Audit Interview.	
<i>Land</i>	<i>Day</i> <i>L_{Aeq}(15 min)</i>	<i>Evening</i> <i>L_{Aeq}(15 min)</i>	<i>Night</i> <i>L_{Aeq}(15 min)</i>																																																														
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5	Continuous Improvement The Proponent shall: (a) implement all reasonable and feasible noise mitigation measures; (b) investigate ways to reduce the noise generated by the project, including off-site road and rail noise and maximum noise levels which may result in sleep disturbance; and (c) report on these investigations and the implementation and effectiveness of these measures in the AEMR, to the satisfaction of the Director-General.	Not Triggered	The site had been in care and maintenance mode during 2012 - 13 August 2018. As the site has not been operational, no significant noise generating activities have been undertaken, during the audit period, up until the commencement of load out of previously stockpiled materials. Those activities had been commenced within the weeks prior to the audit. It is noted that since the commencement of truck loading and transport of the previously stockpiled gravel materials from the site that no noise monitoring has been undertaken. While the Auditor observed those operations, and does not consider that the noise being generated at the time of the audit was likely to exceed the levels specified in the Approval, compliance with the noise limits cannot be verified.	Auditor Observations.	Recommendation: Undertake a round of noise monitoring at the closest residential receiver during the current truck loadig activities to confirm compliance with the noise limits specified in the Approval.						
6	Monitoring Prior to any works being undertaken in the Extension Area , the Proponent shall prepare and implement a Noise Monitoring Program for the project, in consultation with DECCW , and to the satisfaction of the Director-General. The program must include: (a) a combination of attended and unattended noise monitoring measures; and (b) a noise monitoring protocol for evaluating compliance with the noise impact assessment and land acquisition criteria in this approval.	Not Compliant	While it is acknowleged that works in the Extenstion Area have not commenced, a Noise Monitoring Program for the Ardglan Quarry Including a Noise Monitoring Protocol has been prepared by Spectrum Acoustics and was sighted the Auditor. Compliance with the requirements of Noise Monitoring Program is therefore required. The Noise Monitoring Program was approved by DPE on 25 November 2010. The DPE approval letter acknowledges that regulatory stakeholder consultation had been completed. Following the DPE response (31 May 2018) to the Ardglan Quarry 2017 AEMR review, it was noted that noise monitoring had not been conducted quarterly. Daracon had failed to undertake three quarters of noise monitoring as noted in the Noise Monitoring Program (Schedule 3, Condition 6). The Department has assessed this breach and on that occasion has decided to record the breach but take no further enforcement action. Noise monitoring conducted included a combination of attended and unattended noise monitoring and the report prepared by Spectrum Acoustics includes an assessment of compliance against the relevant criteria.	Noise Monitoring Program report no. 9525_3582. DPE Letter to Daracon dated 25 November 2010. DPE email to Daracon on noise monitoring record breach on 11 July 2017	Recommendation - Ensure that all actions, including monitoring, specified in the Noise Monitoring Program are fully implemented.						
Blasting and Vibration											
7	Airblast Overpressure Criteria The Proponent shall ensure that the airblast overpressure level from blasting at the project does not exceed the criteria in Table 5 at any privately-owned residence. Table 5: Airblast overpressure impact assessment criteria <table><tr><th>Airblast overpressure level (dB(Lin Peak))</th><th>Allowable exceedance</th></tr><tr><td>115</td><td>5% of the total number of blasts over a period of 12 months</td></tr><tr><td>120</td><td>0%</td></tr></table>	Airblast overpressure level (dB(Lin Peak))	Allowable exceedance	115	5% of the total number of blasts over a period of 12 months	120	0%	Not Triggered	There were no blasting on site during the audit period.	Audit Interview with Quarry Environment Manager. AEMR 2014, 2015, 2016 and 2017.	
Airblast overpressure level (dB(Lin Peak))	Allowable exceedance										
115	5% of the total number of blasts over a period of 12 months										
120	0%										
8	Ground Vibration Impact Assessment Criteria The Proponent shall ensure that the ground vibration level from blasting at the project does not exceed the criteria in Table 6 at any privately-owned residence. Table 6: Ground vibration impact assessment criteria <table><tr><th>Peak particle velocity (mm/s)</th><th>Allowable exceedance</th></tr><tr><td>5</td><td>5% of the total number of blasts over a period of 12 months</td></tr><tr><td>10</td><td>0%</td></tr></table>	Peak particle velocity (mm/s)	Allowable exceedance	5	5% of the total number of blasts over a period of 12 months	10	0%	Not Triggered	There were no blasting on site during the audit period.	Audit Interview with Quarry Environment Manager. AEMR 2014, 2015, 2016 and 2017.	
Peak particle velocity (mm/s)	Allowable exceedance										
5	5% of the total number of blasts over a period of 12 months										
10	0%										
9	Blasting Frequency The Proponent shall not carry out more than 30 blasts a year, or more than 1 blast per day, without the written approval of the Director-General.	Not Triggered	There were no blasting on site during the audit period.	Audit Interview with Quarry Environment Manager. AEMR 2014, 2015, 2016 and 2017							
10	Operating Conditions The Proponent shall implement best blasting practice to: (a) protect the safety of people, property, public infrastructure and livestock; and (b) minimise the dust and fume emissions from blasting at the project, to the satisfaction of the Director-General.	Not Triggered	There were no blasting on site during the audit period.	Audit Interview with Quarry Environment Manager. AEMR 2014, 2015, 2016 and 2017.							

11	<p>Operating Conditions</p> <p>The Proponent shall not undertake blasting within 500 metres of any privately-owned land or any land not owned by the Proponent, unless suitable arrangements have been made with the landowner and any tenants to minimise the risk of flyrock-related impact to the property to the satisfaction of the Director-General.</p>	Not Triggered	There were no blasting on site during the audit period.	<p>Audit Interview with Quarry Environment Manager.</p> <p>AEMR 2014, 2015, 2016 and 2017.</p>	
12	<p>Public Notice</p> <p>The Proponent shall:</p> <p>(a) notify the landowner/occupier of any residence within 1 kilometre of the quarry pit who registers an interest in being notified about the blasting schedule at the quarry;</p> <p>(b) operate a Blasting Hotline, or alternate system agreed to by the Director-General, to enable the public to get up-to-date information on the blasting schedule at the quarry;</p> <p>(c) keep local residents informed about this hotline (or any alternative notification protocols), to the satisfaction of the Director-General.</p>	Not Triggered	There were no blasting on site during the audit period.	<p>Audit Interview with Quarry Environment Manager.</p> <p>AEMR 2014, 2015, 2016 and 2017.</p>	
13	<p>Property Investigations</p> <p>If any landowner of privately-owned land within 1 kilometre of the site claims that buildings and/or structures on his/her land have been damaged as a result of blasting at the site, following commencement of operations within the extension area, then he/she may ask the Director-General in writing to investigate the claim.</p> <p>If the Director-General is satisfied that an independent property investigation is warranted, the Proponent shall within 3 months of the Director-General's determination:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to investigate the claim; and</p> <p>(b) give the landowner a copy of the property investigation report.</p> <p>If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damages to the satisfaction of the Director-General.</p> <p>If the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Director-General for resolution.</p> <p>If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (see Appendix 6).</p>	Not Triggered	There were no blasting on site during the audit period.	<p>Audit Interview with Quarry Environment Manager.</p> <p>AEMR 2014, 2015, 2016 and 2017.</p>	
14	<p>Blast Monitoring Program</p> <p>Prior to carrying out any blasting in the Extension Area, the Proponent shall prepare and implement a Blast Monitoring Program for the project, in consultation with the DECCW, and to the satisfaction of the Director-General. This program must include a protocol for demonstrating compliance with the blasting criteria in this approval.</p>	Not Triggered	Blast Monitoring Program including a Blast Monitoring Protocol has been developed, dated June 2011 by Spectrum Acoustics. There has been no works and blasting undertaken in the Extension Area during the audit period.	<p>Audit Interview with Quarry Environment Manager.</p> <p>AEMR 2014, 2015, 2016 and 2017. Blast Monitoring Program Report No 9525_3583</p>	

Air Quality																												
15	<p>Impact Assessment Criteria</p> <p>The Proponent shall ensure that the dust emissions generated by the project do not cause additional exceedances of the air quality impact assessment criteria listed in Tables 8, 9 and 10 at any residence, on privately-owned land, or on more than 25 percent of any privately-owned land.</p> <p>Table 8: Long term impact assessment criteria for particulate matter</p> <table><tr><th>Pollutant</th><th>Averaging period</th><th>Criterion</th></tr><tr><td>Total suspended particulate (TSP) matter</td><td>Annual</td><td>90 µg/m³</td></tr><tr><td>Particulate matter < 10 µm (PM₁₀)</td><td>Annual</td><td>30 µg/m³</td></tr></table> <p>Table 9: Short term impact assessment criterion for particulate matter</p> <table><tr><th>Pollutant</th><th>Averaging period</th><th>Criterion</th></tr><tr><td>Particulate matter < 10 µm (PM₁₀)</td><td>24 hour</td><td>50 µg/m³</td></tr></table> <table><tr><th>Pollutant</th><th>Averaging period</th><th>Maximum increase in deposited dust level</th><th>Maximum total deposited dust level</th></tr><tr><td>Deposited dust</td><td>Annual</td><td>2 g/m²/month</td><td>4 g/m²/month</td></tr></table> <p>Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter -Deposited Matter - Gravimetric Method.</p>	Pollutant	Averaging period	Criterion	Total suspended particulate (TSP) matter	Annual	90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	30 µg/m ³	Pollutant	Averaging period	Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	50 µg/m ³	Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level	Deposited dust	Annual	2 g/m ² /month	4 g/m ² /month	Observation	<p>Section 4.3 of the AEMR details air quality monitoring criteria, processes, results and analysis including HVAS and TSP units installed. in the 2016 AEMR, it has been concluded that the quarry was compliant with air quality criteria throughout the reporting period (2016).</p> <p>AQMP section 3 deals with Air Quality monitoring criteria and guidelines.</p> <p>The 2016 AEMR recorded that the D3 dust gauge funnel had been stolen with no data collected during Jan-Apr 2016.</p> <p>An exceedance in dust levels was recorded in Feb 2016. Dust gauge D3, recorded a measurement of 6.4g/m2 (Dust Limit is 4g/m2). The incident was investigated and it was found that a whipper snipper used for vegetation removal during dry weather adjacent to the measurement point that had caused a localised spike (no off-site impact was detected) air borne dust at the same time the HVAS filters were being changed. This incident was not considered a non-compliance as no off-site impact was detected.</p> <p>Preventive action implemented was to reviewthe use of mechanical aids to control vegetation growth around dust gauges. The use of non-mechanical aids were proposed. An observation is raised as this matter was not recorded in the 2016 AEMR.</p>	<p>AEMR 2014, 2015, 2016 and 2017 (section 4.3).</p> <p>Air Quality Management Plan (AQMP) dated 7 Aug 2010 prepared by AECOM</p> <p>Environmental Incident Investigation Report #51804</p>	<p>Recommendation: Continue dust monitoring and undertake dust control measures as detailed in the Air Quality Management Plan to manage exceedances.</p> <p>Continue to implement proposal to use non-mechanical aid to clear vegetation near dust gauges and also to avoid changing of dust gauge filters if there is potential for dust disturbance nearby.</p>
Pollutant	Averaging period	Criterion																										
Total suspended particulate (TSP) matter	Annual	90 µg/m ³																										
Particulate matter < 10 µm (PM ₁₀)	Annual	30 µg/m ³																										
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Deposited dust	Annual	2 g/m ² /month	4 g/m ² /month																									
16	<p>Operating Conditions</p> <p>The Proponent shall ensure any visible air pollution generated by the project is assessed regularly, and that quarrying operations are relocated, modified, and/or stopped as required to minimise air quality impacts on privately-owned land, to the satisfaction of the Director-General.</p>	Compliant	<p>During the audit, the Auditor witnessed the loading of trucks and movement of trucks into and out of the quarry. No significant dust generation was observed during those operations.</p> <p>At the time of the audit a water truck was operating at the quarry. The auditor witnessed water being applied to access roads, tracks and loading areas.</p> <p>AQMP section 5 details pollution control measures implemented to control air pollution.</p> <p>The dust mitigation processes implemented met the requirements of the AQMP.</p>	<p>Air quality management plan prepard by AECOM dated 7 Jul 2010 section 5.</p> <p>Auditor Observations.</p>																								
17	<p>Monitoring</p> <p>The Proponent shall prepare and implement an Air Quality Monitoring Program for the project, in consultation with DECCW, and to the satisfaction of the Director-General. This program must:</p> <p>(a) use a combination of high volume air samplers and dust deposition gauges to monitor the dust emissions from the project;</p> <p>(b) include a protocol for demonstrating compliance with the air quality impact assessment criteria in this approval; and</p> <p>(c) be submitted to the Director-General for approval prior to any works being undertaken in the Extension Area.</p>	Compliant	<p>An Air Quality Management Plan (AQMP) has been prepared by AECOM (dated 7 Jul 2010). This plan was reviewed by Auditor. Section 6 of that document includes an Air Quality Monitoring Program. A Compliance Protocol is included in section 7 and includes a monitoring and routine/incident reporting protocols and complaints management procedure.</p>	<p>Air quality management plan prepard by AECOM dt 7 Jul 2010 sections 6 and 7</p>																								
		Not Triggered	<p>The AQMP is currently being reviewed and updated to take into account future works that may be undertaken in the Extension Area.</p>	<p>Interview with Quarry Environment Manager (Luke Robinson)</p>																								
Meteorological Monitoring																												
18	<p>Meteorological Monitoring</p> <p>The Proponent shall ensure the project has a suitable meteorological station in the vicinity of the site that complies with the requirements in Approved Methods for Sampling of Air Pollutants in New South Wales guideline, to the satisfaction of the DECCW and the Director-General.</p>	Compliant	<p>The installed meteorological weather station meets the required NSW EPA requirements:</p> <p>- Method No AM-1 Method AS2922-1987</p> <p>- Method No AM-2 Method AS2923-1987</p> <p>- Method No AM-4 Method USEPA (2000) EPA 454/R-99-005</p> <p>The location and specifications for the weather station are detailed in Section 6 of the AQMP.</p>	<p>Envirodata Certificate of Conformance, dated 25 Jun 2018</p> <p>Air quality management plan prepard by AECOM dt 7 Jul 2010 section 6.</p> <p>Auditor Observations.</p>																								

Meteorological Monitoring					
19	<p>Surface Water Discharges</p> <p>The Proponent shall only discharge water from the site in accordance with the provisions of an EPL.</p>	Noted	<p>The EPL does not licence the water discharge point from the site. The Creek that runs along the Southern site boundary was dry at the time of the inspection. That creek would receive any waters discharged from the site.</p> <p>The sediment pond located in the centre of the quarry was full of water at the time of the inspection. This area of NSW is, and has been for some months in drought and therefore the presence of water in the pond was unexpected. It is the auditor's opinion that ground water may be entering that pond. Water seepage was also observed, along a channel that runs along the rail spur at the southern end of the site. .</p> <p>The seepage is not considered (by the Auditor) to be sourced from surface (rain) water flows from the site. It is noted that the final sediment retention basin that is located between the rail spur and discharges into the creek immediately before it is piped under the main rail line was dry at the time of the inspection. There was no visible evidence of any discharge from that basin or anywhere else from the site into the Creek.</p> <p>It was noted that, what appeared to be rail ballast had been deposited in the final sediment basin, reducing the volume available within the basin. Quarry management stated that, that material was placed in the basin by the ARTC during duplication of the rail line that runs past the Quarry.</p>	<p>Environment Protection Licence</p> <p>Auditor Observations.</p>	<p>Recommendation: Prior to commencing work in the Extension Area:</p> <p>(1) It is recommended that the retention volume of the final sedimentation basin necessary to capture surface waters (to ensure compliance with the EPL) be calculated. The calculation should take into account the area of dirty water catchment from the existing quarry and the extension area.</p> <p>(2) It is recommended that final sediment basin be surveyed to determine if it has sufficient volume to meet the volume requirements determined in (1) above.</p> <p>(3) It is recommended, that if the volume of the final sediment basin is not sufficient, that the ballast dumped in the basin, be removed to increase the basin volume to the required amount.</p>
20	<p>Site Water Management Plan</p> <p>Prior to any works being undertaken in the Extension Area, the Proponent shall prepare and implement a Site Water Management Plan for the project, in consultation with DECCW and NOW, and to the satisfaction of the Director-General. This plan must be prepared by suitably qualified expert/s whose appointment/s have been approved by the Director-General.</p> <p>Note: The Site Water Management Plan must incorporate the existing quarry operations and operations within the extension area.</p>	Not Triggered	<p>The Site Water Management Plan (SWMP) prepared in August 2010 was sighted by the Auditors. This is included in the Orogen Environmental Management Strategy (v.3) of September 2010 Appendix H. The Appendix C of this EMS and Appendix A of the SWMP include evidence of consultation with DECCW and NOW.</p> <p>The plan was approved by Department of Planning as per letter dated 25 Nov 2010, which mentions that the Department has reviewed the document and considered that the review comments by relevant government agencies have been incorporated. Though no correspondence was sighted specifically approving AECOM to prepare this plan or consultation with DECCW and NOW (now WaterNSW), the approval of the plan is considered as approval by the department.</p> <p>This approved Site Water Management Plan refers to the Extension Area. The</p>	<p>Environmental Management Strategy developed by Orogen (September 2010) Appendix H</p> <p>Site Water Management Plan 6 Aug 2010 by AECOM</p> <p>DoP Letter dated 25 Nov 2010 titled "Ardglen Quarry Extension (06_0264) Approval of EMS, Environmental Management Plans and Monitoring Programs" approving the Site Water Management Plan.</p>	
20 (a), (b), (c).	<p>The Plan should include:</p> <p>(a) a Site Water Balance;</p> <p>(b) An Erosion and Sediment Control Plan</p> <p>(c) A Water Monitoring Program</p>	Not Triggered	<p>A Site Water Mamangement Plan was prepared for the site in 2010.</p> <p>Section 3 of that plan includes water balance analysis with AWBM and GoldSim models.</p> <p>Section 4 of the Site Water Management Plan includes an Erosion and Sediment Control Plan.</p> <p>Section 5 of the Site Water Management Plan includes Water Monitoring Program.</p>	Site Water Management Plan 6 Aug 2010 by AECOM	
21 (a), (b), (c), (d)	<p>Site Water Balance</p> <p>The Site Water Balance must include details of:</p> <p>(a) Sources and reliability of water supply</p> <p>(b) water management;</p> <p>(c) Water use; and</p> <p>(d) any off-site discharges</p>	Not Triggered	<p>The Site Water Management Plan includes an AWBM model determining catchment water balance model and a GoldSim site water balance model that includes a water cycle diagram that identifies water sources and discharge points. The diagram and discussion in section 3 describes sources, sump, operational demand and discharge points to Doughboy Hollow Creek. The plan refers to data available from the Environmental Assessment (2007) for operational usage and area and volume calculations in section 2.</p> <p>The water balance assessed the viability of the quarry to operate independently of external water sources based on results of modelling three different rainfall scenarios, which is summarised in section 6.</p> <p>Reliability of current water sources is not clear.</p> <p>Section 4.2.2 details the design of Clean Water diversion works installed for clean water runoff around the site.</p>	Site Water Management Plan 6 Aug 2010 by AECOM	It is recommended that the Water Management Plan be updated to include an assessment of the reliability of the water supply to the operation. This should be completed prior to the commencement of works in the Extension Area.

22 (a), (b), (c), (d), (e)	<p>Erosion and Sediment Control</p> <p>The Erosion and Sediment Control Plan (ESCP) must:</p> <p>(a) be consistent with the requirements of the Managing Urban Stormwater: Soils and Construction Manual (Landcom 2004, or its latest version);</p> <p>(b) identify activities that could cause soil erosion and generate sediment;</p> <p>(c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;</p> <p>(d) describe the location, function, and capacity of erosion and sediment control structures; and</p> <p>(e) describe what measures would be implemented to maintain the structures over time.</p>	Not Triggered	<p>The Site Water Management Plan includes ESCP in Section 4 -</p> <p>a) Section 4.2.1 refers to the 2008 version of Managing Urban Stormwater: Soils and Construction Manual Volume 1 for the design of sediment basins. Section 4.2.2 of the plan refers to Volume 2E of the manual (Mines and Quarries), Section 6.2.2 regarding placement of rock rip rap.</p> <p>b) Activities on site that could cause soil erosion and sediment generation was not found to be identified in the plan.</p> <p>c) Section 4.2 of the plan describes soil erosion and control measures.</p> <p>d) Figures 4.1, 4.2, 4.3 and 4.4 as well as descriptions within section 4.2 describes the design, location, function and capacity of the erosion and sediment control measures.</p> <p>e) Section 4.3 includes rehabilitation of the site including final landform vegetation depicted in Figure 4.5.</p>	Site Water Management Plan 6 Aug 2010 by AECOM	<p>Recommendation: Operational and maintenance activities on site that could cause soil erosion and sediment generation should be identified and described for in the plan.</p>
23 (a), (b), (c), (d)	<p>Water Monitoring</p> <p>The Water Monitoring Plan must include:</p> <p>(a) water quality assessment criteria;</p> <p>(b) a program to monitor water flows and quality in creeks and other waterbodies that could potentially be affected by the project;</p> <p>(c) a protocol for the investigation, notification, and mitigation of identified exceedances of the water quality assessment criteria; and</p> <p>(d) the procedures that would be followed if any unforeseen impacts are detected during the project.</p>	Not Triggered	<p>(a) The Site Water Management Plan includes Water Quality Criteria in section 5.2.</p> <p>(b) Monitoring Program is included in section 5.3 of the plan.</p> <p>(c) A reporting procedure is included in section 5.4 of the plan, referring to EPL Annual Returns. It is noted that a detailed protocol for investigation, notification and mitigation of water quality exceedances is not contained in the plan.</p> <p>(d) procedures for unforeseen water quality impacts are not described in the plan.</p>	Site Water Management Plan 6 Aug 2010 by AECOM	<p>Recommendation: The plan should be revised to include detailed protocol for investigation, notification and mitigation of water quality exceedances.</p> <p>Details for procedures to manage unforeseen water quality impacts should be included in the site water management plan.</p>
Rehabilitation and Landscape Management					
24	<p>Rehabilitation</p> <p>The Proponent shall progressively rehabilitate the site in a manner that is generally consistent with the conceptual rehabilitation principles and proposed rehabilitation strategy in the EA (shown conceptually in Appendix 2), to the satisfaction of the Director-General.</p>	Not Compliant	<p>During the inspection, the Auditor did not observe any significant revegetation works (past or current). The AEMRs (section 2.11), confirmed that there has been no rehabilitation undertaken during the audit period apart from targeted weed control and some maintenance of offset areas.</p> <p>There has been no progressive rehabilitation undertaken on the site.</p>	<p>AEMR for 2014, 2015, 2016, 2017</p> <p>Auditor Observations</p> <p>Interview with Quarry Environment Manager</p>	<p>Recommendation: Progressive rehabilitation should be undertaken as per Appendix 2 of the consent.</p>
25	<p>Offset Strategy</p> <p>Prior to undertaking any works in the Extension Area, the Proponent shall revise the Biodiversity Offset Strategy described in the EA and Response to Submissions (shown conceptually in Appendix 3), to the satisfaction of the Director-General. The revised strategy must be prepared in consultation with the DECCW, and include additional areas where Yellow Box White Box Blakely's Red Gum Woodland EEC would be actively re-established within the identified biodiversity offset areas shown in Appendix 3.</p>	Not Triggered	<p>Implementation of the Offset Strategy as described in the September 2010 landscape management plan is being undertaken, as per AEMR 2017 section 2.11.</p> <p>The Offset Strategy is included in the Landscape Management Plan, which has been sighted by the Auditors as Appendix I within the Environmental Management Strategy prepared by Orogen. Section 4.2 of the plan describes the Purpose of Offset Strategy as per this condition followed by implementation timeframes. This document also includes additional requirements related to the Extension Area.</p> <p>Evidence of consultation with DECCW at the time of revising the strategy was not sighted however the plan has been approved by DoP via letter dated 25 Nov 2010, which indicates that the DoP had reviewed, and was satisfied with, the review omments of the relevant government agencies have been incorporated in the revisd documents and that they fulfil the requirements of the conditions of the project approval for the quarry.</p> <p>Works have not been initiated within the Extension area, therefore, there has been no change to the Offset Strategy implementation.</p>	<p>AEMR 2017</p> <p>Environmental Management Strategy developed by Orogen (September 2010) Appendix I - Landscape Management Plan</p> <p>DoP Letter of approval signed by A/Director of Mining and Industry Projects as Delegate for the D-G, dated 25 Nov 2010 and titled "Ardglen Quarry Extension (06-0264) Approval of EMS, Environmental Management Plans and Monitoring Programs".</p> <p>Auditor Observation (of rehabilitation areas)</p>	

26	Offset Strategy Within 3 years of this approval, the Proponent shall make suitable arrangements to provide appropriate long term security for the offset areas to the satisfaction of the Director-General.	Not Compliant	Section 4.9 of the plan shows commitment to "securing the long term security of the offset sites by November 2011 through a Voluntary Conservation Agreement with the NSW Minister of Environment, DECCW or via other mechanisms". Daracon has not provided long term security for the off-set areas as per the stipulated timeframe. They are in the process of applying for section 88B [Conveyance Act 1919] instrument to create an easement over the offset areas to protect those areas. The Auditor sighted the application for the easement and understands that the application had yet to be submitted at the time of reporting.	Environmental Management Strategy developed by Orogen (September 2010) Appendix I - Landscape Management Plan Section 31B of the Real Property Act 1900 Transfer Granting Easement Etc Over Own Land Section 31B of the Real Property Act 1900 Transfer Including Covenant- 88B submission documentation.	It is recommended that the application for easements over the off-set areas is submitted as soon as practical.
27 (a)	Landscape Management Plan The Proponent shall prepare and implement a detailed Landscape Management Plan for the project to the satisfaction of the Director-General. This plan must: (a) be prepared by suitably qualified expert/s whose appointment/s have been approved by the Director-General;	Compliant	Environmental Management Strategy developed by Orogen (September 2010) includes Landscape management plan in section 3.5 and Appendix I. Evidence of approval of the experts engaged to prepare the plan was not sighted however communication from DoP (A/Director Mining and Industry Projects as delegate of DG) dated 25 Nov 2010 details approval of various plans including Landscape Management Plan which includes the Rehabilitation and Biodiversity Offset Management Plan	Environmental Management Strategy developed by Orogen (September 2010) Appendix I - Landscape Management Plan DoP Letter of approval signed by A/Director of Mining and Industry Projects as Delegate for the D-G, dated 25 Nov 2010 and titled "Ardglen Quarry Extension (06-0264) Approval of EMS, Environmental Management Plans and Monitoring Programs".	
27 (b)	Landscape Management Plan The Proponent shall prepare and implement a detailed Landscape Management Plan for the project to the satisfaction of the Director-General. This plan must: (b) submitted to the Director-General for approval prior to undertaking any works in the Extension Area ; and	Compliant	Works have not been initiated in the Extension Area. It is noted that at Landscape Management Plan has been prepared.	Site observations by Auditor, Site Audit interview with Luke Robinson	
27 (c)	Landscape Management Plan The Proponent shall prepare and implement a detailed Landscape Management Plan for the project to the satisfaction of the Director-General. This plan must: include a: <ul style="list-style-type: none"> • Doughboy Hollow Creek Rehabilitation Strategy; • Rehabilitation and Biodiversity Offset Management Plan; and • Quarry Closure Plan. Note: The Department accepts that the initial Landscape Management Plan may not include the detailed Quarry Closure Plan. However, if this occurs, the Proponent will be required to seek approval from the Director-General for an alternative timetable for the completion and approval of the Quarry Closure Plan.	Compliant	Environmental Management Strategy developed by Orogen (September 2010) includes Landscape management plan in section 3.5 and Appendix I. The Landscape Management Plan includes Doughboy Hollow Creek Rehabilitation Strategy in section 3 and Rehabilitation and Biodiversity Offset Management Plan in section 4. Section 5 includes a brief Quarry Closure Plan.	Environmental Management Strategy developed by Orogen (September 2010) Appendix I - Landscape Management Plan	
28 (a)	Doughboy Hollow Creek Rehabilitation Strategy The Doughboy Hollow Creek Rehabilitation Strategy must: (a) be prepared in consultation with the I&I NSW and NOW ;	Compliant	Appendix B of the Landscape Management Plan (Appendix I of the Orogen EMS) includes copy of various email correspondence with DECCW's Environment Protection and Regulation Group and Orogen's senior botanist Isaac Mamott.	Environmental Management Strategy developed by Orogen (September 2010) Appendix I - Landscape Management Plan Section 3 and Appendix B	
28 (b)	Doughboy Hollow Creek Rehabilitation Strategy (b) describe the measures that would be implemented to: <ul style="list-style-type: none"> • remove the weir from Doughboy Hollow Creek; • rehabilitate the creek; and • rehabilitate and/or re-establish riparian vegetation. 	Compliant	Section 3 of the Landscape Management Plan (Appendix I, EM Strategy) includes brief plans for: <ul style="list-style-type: none"> • Causeway and weir removal (it was proposed that the rock weir be removed down to the natural rock bed using a small excavator) and • Creekline rehabilitation (including re-establishment of a River Oak Riparian Woodland, minimisation of weed invasion etc). 	Environmental Management Strategy developed by Orogen (September 2010) Appendix I - Landscape Management Plan Section 3	
29 (a)	Rehabilitation and Biodiversity Offset Management Plan The Rehabilitation and Biodiversity Offset Management Plan must: (a) be prepared by suitably qualified expert/s whose appointment/s have been approved by the Director-General;	Compliant	Environmental Management Strategy developed by Orogen (September 2010) includes Landscape management plan in section 3.5 and Appendix I. Section 4 is the Rehabilitation and Biodiversity Offset Management Plan. Evidence of approval of the experts engaged tp prepare the plan was not sighted however communication from DoP (A/Director Mining and Industry Projects as delegate of DG) dated 25 Nov 2010 details approval of various plans including Landscape Management Plan which includes the Rehabilitation and Biodiversity Offset Management Plan	Environmental Management Strategy developed by Orogen (September 2010) Appendix I - Landscape Management Plan Section 4 and Appendix B DoP Letter of approval signed by A/Director of Mining and Industry Projects as Delegate for the D-G, dated 25 Nov 2010 and titled "Ardglen Quarry Extension (06-0264) Approval of EMS, Environmental Management Plans and Monitoring Programs".	

29 (b)	<p>Rehabilitation and Biodiversity Offset Management Plan</p> <p>The Rehabilitation and Biodiversity Offset Management Plan must:</p> <p>(b) describe in general the short, medium, and long term measures that would be implemented to:</p> <ul style="list-style-type: none"> • rehabilitate the site; • implement the Biodiversity Offset Strategy and Doughboy Hollow Creek Rehabilitation Strategy; and • manage the remnant vegetation and habitat on the site; 	Compliant	Sections 4.2 - 4.6 of the Landscape Management Plan details rehabilitation strategy and management plans of Offset Sites, Fauna and Vegetation Clearing Management and Pre-clearing surveys.	Environmental Management Strategy developed by Orogen (September 2010) Appendix I - Landscape Management Plan Section 4	
29 (c)	<p>Rehabilitation and Biodiversity Offset Management Plan</p> <p>The Rehabilitation and Biodiversity Offset Management Plan must:</p> <p>include a detailed description of what measures would be implemented over the next 3 years to implement the Biodiversity Offset Strategy and Doughboy Hollow Creek Rehabilitation Strategy;</p>	Compliant	Section 4.2 of the Landscape Management Plan lists the implementation timeframes for Offset Strategy as: Short term - 12 months following approval Medium term - three years Long term - five years	Environmental Management Strategy developed by Orogen (September 2010) Appendix I - Landscape Management Plan Section 4	
29 (d)	<p>Rehabilitation and Biodiversity Offset Management Plan</p> <p>The Rehabilitation and Biodiversity Offset Management Plan must:</p> <p>include a detailed description of what measures would be implemented over the next 5 years to rehabilitate the site, including the procedures to be implemented for:</p> <ul style="list-style-type: none"> • progressively rehabilitating areas disturbed by quarrying; • implementing revegetation and regeneration within the disturbance areas, including establishment of canopy, sub-canopy (if relevant), understorey and ground strata; • managing the remnant vegetation and habitat on site; • managing impacts on fauna; • reducing the visual impacts of the project; • landscaping the site to minimise visual impacts; • protecting areas outside the disturbance areas; • conserving and reusing topsoil; • collecting and propagating seeds for rehabilitation works; • salvaging and reusing material from the site for habitat enhancement; • controlling weeds and feral pests; • controlling access; and • bushfire management; 	Not Compliant	<p>Environmental Management Strategy (EMS) Ver.3 for Ardglenn Quarry Extension Major Project 06/0264 has been prepared by Orogen, dated September 2010. Section 4 of the Landscape Management Plan (Appendix I in EMS) provides a Rehabilitation and Biodiversity Offset Management Plan.</p> <p>The Rehabilitation and Biodiversity Offset Management Plan does not include a detailed description of the five-year rehabilitation procedures as required by this clause.</p>	http:// www.daraconquarries.com.au/Resources/Documents/Locations/Ardglenn/Ardglenn-EMS.pdf	Recommendation: Revise the Rehabilitation and Biodiversity Offset Management plan to address this requirement by developing five-year plan with clear procedures.
29 (e)	<p>Rehabilitation and Biodiversity Offset Management Plan</p> <p>The Rehabilitation and Biodiversity Offset Management Plan must:</p> <p>(e) detailed performance and completion criteria for the rehabilitation of the site and implementation of the Biodiversity Offset Strategy and Doughboy Hollow Creek Rehabilitation Strategy;</p>	Compliant	Table 4.1 within the Landscape Management Plan (section 4 Rehabilitation and Biodiversity Offset Management Plan / Strategy) include performance and completion criteria and monitoring actions for site rehabilitation implementation for: * Overstorey restoration * Overstorey restoration - natural * Overstorey restoration - assisted * Understorey restoration * Re-erection of salvaged hollows * Nest Boxes * Quarry rehabilitation	Environmental Management Strategy developed by Orogen (September 2010) Appendix I - Landscape Management Plan Section 4 - Rehabilitation and Biodiversity Management Plan	
29 (f)	<p>Rehabilitation and Biodiversity Offset Management Plan</p> <p>The Rehabilitation and Biodiversity Offset Management Plan must:</p> <p>(f) a detailed description of how the performance of the rehabilitation of the site and implementation of the Biodiversity Offset Strategy and Doughboy Hollow Creek Rehabilitation Strategy would be monitored over time to achieve the relevant objectives and completion criteria;</p>	Observation	Performance monitoring measures are noted within Table 4.1 of the Landscape Management Plan (section 4 Rehabilitation and Biodiversity Offset Management Plan / Strategy) however this does not give detailed descriptions.	Environmental Management Strategy developed by Orogen (September 2010) Appendix I - Landscape Management Plan Section 4 - Rehabilitation and Biodiversity Management Plan	Revise the Landscape Management Plan to include a detailed description of how the performance of the rehabilitation of the site and implementation of the Biodiversity Offset Strategy and Doughboy Hollow Creek Rehabilitation Strategy would be monitored over time to achieve the relevant objectives and completion criteria.
29 (g)	<p>Rehabilitation and Biodiversity Offset Management Plan</p> <p>The Rehabilitation and Biodiversity Offset Management Plan must:</p> <p>(g) a description of the potential risks to successful revegetation and/or rehabilitation in the offset areas and project area, and a description of the contingency measures that would be implemented to mitigate these risks; and</p>	Compliant	Table 4.2 within the Landscape Management Plan (section 4 Rehabilitation and Biodiversity Offset Management Plan / Strategy) include potential risks to revegetation and rehabilitation in the offset areas with contingency measures.	Environmental Management Strategy developed by Orogen (September 2010) Appendix I - Landscape Management Plan Section 4 - Rehabilitation and Biodiversity Management Plan	
29 (h)	<p>Rehabilitation and Biodiversity Offset Management Plan</p> <p>The Rehabilitation and Biodiversity Offset Management Plan must:</p> <p>(h) details of who is responsible for monitoring, reviewing and implementing the plan.</p>	Not Compliant	Section 4.2.2 of the Landscape Management Plan (section 4 Rehabilitation and Biodiversity Offset Management Plan / Strategy) states that Daracon Quarries will be responsible for ensuring implementation, monitoring and review of this plan. Roles and responsibilities are not clear.	Environmental Management Strategy developed by Orogen (September 2010) Appendix I - Landscape Management Plan Section 4 - Rehabilitation and Biodiversity Management Plan	Revise the Rehabilitation and Biodiversity Offset Management plan to address this requirement including roles and responsibilities for implementing the Rehabilitation and Biodiversity Offset Management Plan.

30 (a)	Quarry Closure Plan The Quarry Closure Plan must: (a) define the objectives and criteria for quarry closure;	Compliant	Landscape Management Plan section 5.2 & 5.3 includes a Quarry Closure Plan Objectives and critiera for quarry closure.	Environmental Management Strategy developed by Orogen (September 2010) Appendix I - Landscape Management Plan Section 5	
30 (b)	Quarry Closure Plan The Quarry Closure Plan must: (b) investigate options for the future use of the site, including any final void(s);	Compliant	Landscape Management Plan section 5.4 includes a Quarry Closure Plan for future use of the site.	Environmental Management Strategy developed by Orogen (September 2010) Appendix I - Landscape Management Plan Section 5	
30 (c)	Quarry Closure Plan The Quarry Closure Plan must: (c) describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the development; and	Not Triggered	Landscape Management Plan section 5.5 includes a brief section on the management of ongoing environmental effects. The conclusion is that, based on the EA (ERM 2007), the quarry expansion is unlikely to result in any cumulative or long term environmental impacts. The plan does not include measures to implement minimisation / management of ongoing environmental effects of the development.	Environmental Management Strategy developed by Orogen (September 2010) Appendix I - Landscape Management Plan Section 5	
30 (d)	Quarry Closure Plan The Quarry Closure Plan must: (d) describe how the performance of these measures would be monitored over time.	Not Triggered	The Quarry Closure Plan doesnt give details of long term monitoring of the measures. Section 5.3 of the Landscape Management Plan refers to Project EA that mentioned that 'the closure of the quarry may occur when the extraction limit of 15 million tonnes (500,000 t/annum) has been reached after about a 30 year period'.	Environmental Management Strategy developed by Orogen (September 2010) Appendix I - Landscape Management Plan Section 5	
31	Rehabilitation Bond Within 3 months of the approval of the Landscape Management Plan, the Proponent shall lodge a rehabilitation bond with the Director-General to ensure that the rehabilitation and biodiversity offset obligations required in this approval are implemented in accordance with the performance and completion criteria in the Rehabilitation and Biodiversity Offset Management Plan. The rehabilitation bond may in the form of a bank guarantee or security bond. The sum of the bond shall be calculated by: (a) a suitably qualified quantity surveyor at \$2.50/m2 for the area to be disturbed over the next 5 year period at the quarry; and (b) a suitably qualified rehabilitation expert for land within the biodiversity offset areas where re-establishment of the EEC is proposed, to the satisfaction of the Director-General. Notes: • If the rehabilitation and biodiversity offset is completed to the satisfaction of the Director-General, the Department will release the rehabilitation bond. • If the rehabilitation and biodiversity offset is not completed to the satisfaction of the Director-General, all or part of the rehabilitation bond will be used to ensure the satisfactory completion of the relevant works.	Compliant	Letter from Daracon to DPE dated 29 Sept 2016 and Letter from DPE Resources Assessment Director dated 30 Sept 2016 confirms and accepted a calculated amount of \$731,154.37. The determination of costs for rehabilitation bond 2016-2020 has been presented in a report by conacher consulting dated September 2016 Ref 6037/2 The rehabilitation bond (Bond No 201610-0190) has been provided by asset insure dated 26 Oct 2016 for Swiss RE International SE under Power of Attorney dated 31 July 2014.	Letter from DPE Resources Assessment Director dated 30 Sept 2016 Letter from Daracon to DPE dated 29 Sept 2016 sent by Greg Dressier Unconditional undertaking Bond No 201610-0190 Conacher Consulting report dated September 2016 Ref 6037/2	
32	Rehabilitation Bond Every 5 years, following the provision of the rehabilitation bond (see condition 31) , the Proponent shall review, and if necessary revise, the sum of the bond to the satisfaction of the Director-General. This review must consider: (a) the effects of inflation; (b) any changes to the total area of disturbance; and (c) the performance of the rehabilitation against the completion criteria of the Rehabilitation, Biodiversity Offset Management Plan.	Not Triggered	This condition be triggered in 2021		
Transport					
33 (a)	Product Transport The Proponent shall: (a) keep records of the: • amount of quarry materials imported onto the site each year; • amount of product transported from the site each year; • number of truck movements generated by the project, on a weekly basis; • number of train movements generated by the project, on a weekly basis; • date and time of each train movement generated by the project;	Compliant	Truck loading dockets inspected by the Auditors on site indicated the following information being recorded: * amount of quarry materials transported from the site in each trip (which can be used to calculate annual quantities) * number of truck movements generated by the project There have been no material imported onto the site or train movements reported.	AEMR for 2014, 2015, 2016, 2017 Truck movement register (on site) Truck loading docket book (on site) signed by truck driver - docket numbers 101371 - 101398 (17 Aug 18) 101344 - 101370 (16 Aug 18)	
33 (b)	Product Transport The Proponent shall: (b) provide annual production data to the I&I NSW using the standard form for that purpose; and	Not Triggered	There has been no production on site while in care and maintenance phase. The material being transported out are from current stockpile.	AEMRs for 2014-2017	

33 (c)	Product Transport The Proponent shall: (c) include these records in the AEMR.	Not Triggered	The site has been in care and maintenance phase between 2012 to 13 August 2018, as such there has been no product transport data to include in recent AEMRs.	AEMRs for 2014-2017	
34 (a)	Road Safety and Condition Audit Prior to undertaking any works in the Extension Area, the Proponent shall undertake a Road Safety and Condition Audit for the project, to the satisfaction of the Director-General. This audit must: (a) be prepared by a suitably independent and qualified expert/s whose appointment has been approved by the Director-General;	Not Triggered	Road Safety Audit is currently being initiated, proposal by Crossroads Civil Design dated 22 Aug 2018 sighted by Auditors. Daracon should consult DPE prior to engaging the selected consultant.	AEMRs for 2014-2017 Road Safety Audit proposal by Crossroads Civil Design dated 22 Aug 2018	Daracon should consult DPE prior to engaging the selected consultant for approval.
34 (b)	Road Safety and Condition Audit This audit must: (b) be prepared in consultation with the RTA and Council;	Not Triggered	Road Safety Audit is currently being initiated, proposal by Crossroads Civil Design dated 22 Aug 2018 sighted by Auditors. Proposal section 4 details the scope of works, which refers to RMS guidelines for Road Safety Audit Practices and Austroads Guide ro Road Safety Part 6. The audit should be prepared and conducted in consultation with RMS and Council.	AEMRs for 2014-2017 Road Safety Audit proposal by Crossroads Civil Design dated 22 Aug 2018	The audit should be prepared and conducted in consultation with RMS and Council.
34 (c)	Road Safety and Condition Audit This audit must: (c) assess the safety, performance and condition of the Ardglen Street-New England Highway intersection and the quarry access route from the New England Highway to the quarry entrance (Ardglen Street, High Street (Swinging Bridges Road), St Stephen Street and Warra Street); and	Not Triggered	Road Safety Audit is currently being initiated, proposal by Crossroads Civil Design dated 22 Aug 2018 sighted by Auditors. Section 4 of the proposal, Scope of Works, states: "The scope of works is to provide a Road Safety Audit team, including at least a minimum of one recognised level 3 Lead auditor and one recognised level 2 auditor to carry out the Road Safety Audit at the Intersection of Ardglen Street / New England Highway & Ardglen Quarry Access Route."	AEMRs for 2014-2017 Road Safety Audit proposal by Crossroads Civil Design dated 22 Aug 2018	
34 (d)	Road Safety and Condition Audit This audit must: (d) identify any road works that are required to comply with relevant AUSROAD standards or other relevant RTA requirements.	Not Triggered	Road Safety Audit is currently being initiated, proposal by Crossroads Civil Design dated 22 Aug 2018 sighted by Auditors. Section 5 of the proposal, Project Methodology, details that: "The Road Safety Audit is to be in accordance with RMS Guidelines for Road Safety Practices and Austroads guide to Road Safety Part 6."	AEMRs for 2014-2017 Road Safety Audit proposal by Crossroads Civil Design dated 22 Aug 2018	
35	Road Safety and Condition Audit Within 12 months of completing the Road Safety and Condition Audit, the Proponent shall undertake (and complete) any road works recommended in the Audit, to the satisfaction of the relevant roads authority (i.e. RTA or Council). If there is a dispute about the implementation of these measures, then the Proponent may refer the matter to the Director-General for resolution.	Not Triggered	Road Safety Audit is currently being initiated, proposal by Crossroads Civil Design dated 22 Aug 2018 sighted by Auditors.	AEMRs for 2014-2017 Road Safety Audit proposal by Crossroads Civil Design dated 22 Aug 2018	
36	Road Signage Within 3 months of this approval, the Proponent shall install warning signs ("Truck Turning") on the northern and southern approaches to the quarry access route on the New England Highway, to the satisfaction of the RTA.	Compliant	Truck turning signs have been installed on the New England Highway approx 250m away on the northern and southern approaches via Main St access. Luke Robinson reported that Signage was installed in accordance with the RMS (RTA) Traffic Control at Work Sites documentation.	Site inspection audit	
37	Road Maintenance The Proponent shall maintain the quarry access route from the New England Highway to the quarry entrance (Ardglen Street, High Street (Swinging Bridges Road), St Stephen Street and Warra Street) until the cessation of quarrying on the site, to the satisfaction of Council. If the Proponent and the Council fail to reach agreement on the road maintenance requirements, then either party may refer the matter to the Director-General for resolution. Any determination by the Director-General's on this matter will be binding on the Proponent and the Council.	Compliant	Auditors have sighted an email from Alice Elsley, Town Planner Liverpool Plains Shire Council (LPSC) dated 7 Aug 2018 confirming satisfaction of Council that there is adequate Local Road infrastructure and safety measures in place from the Quarry access off High Street to the New England Highway to permit the increase in road transport out of the quarry from 250,000t/annum to 500,000t/annum. The email trail includes a response dated 19 Apr 2018 from the Director of Environmental and Economic Development Services at LPSC confirming email as the method of liaison for expediency and convenience.	Email from Town Planner Liverpool Plains Shire Council dated 7 August 2018 with Subject: RE: Ardglen Quarry - acknowledgement of receipt of email 19 Apr 2018.	
38	Road Haulage The Proponent shall ensure that truck movements associated with the project do not exceed 50 movements on average per day.	Compliant	As per DPE letter dated 9 Aug 18, the average daily truck movement has been changed to 55. The truck loading and movement records inspected by the Auditors indicate the average number of truck movements is maintained within the required limit (27 return trips on 16 Aug 2018, 26 return trips on 17 Aug 2018)	DPE letter titled "Arglen Quarry Extension Project MP 06_0264 Recommencement of Operations" dated 9 Aug 2018. Truck movement register Ardglen Sales August 2018 to 20.8.18 Truck loading docket book (on site) signed by truck driver - docket numbers 101371 - 101398 (17 Aug 18) 101344 - 101370 (16 Aug 18)	

39	Road Haulage The Proponent shall not use trucks with a capacity of greater than 35 tonnes to transport product from the site, unless otherwise agreed in writing by the RTA.	Compliant	The truck movement register indicates the tonnages of each truck all under 35 tonnes from 14 Aug 2018 Copies of Consultation Record sighted by Auditors indicate communication to drivers on Code of Conduct, weight limit of 35 tonnes etc.	Truck movement register Ardglen Sales August 2018 to 20.8.18 Truck loading docket book (on site) signed by truck driver - docket numbers 101371 - 101398 (17 Aug 18) 101344 - 101370 (16 Aug 18) Consultation Records for dates 15 Aug 18, 16 Aug 18 (eg.)	
40	Road Haulage The Proponent shall ensure that all loaded vehicles entering or leaving the site are covered, and are cleaned of materials that may fall onto public roads.	Compliant	Driver Code of Conduct includes this requirement, which all drivers accessing the site have been inducted into, as per Consultation Records signed by drivers.	Code of Conduct document QU-PRO-0215-001 dated 02 Aug 2018 Daracon IMS IM-PLN-1400-001 Ardglen Quarry Traffic and Transport Management Plan Rev 04 dated 10 Aug 2018 Consultation Records for dates 15 Aug 18, 16 Aug 18 (eg.)	
41	Rail Loading The Proponent may only load a maximum of 2 trains outside the rail loading and distribution hours in Table 1 in any 12 month period, unless agreed to in writing by the Director-General.	Not Triggered	There has been no rail haulage during the audit period as the site is in the Care and Maintenance phase	AEMRs for 2014-2017	
42	Rail Loading If the Proponent intends to undertake out of hours rail loading, it must use its best endeavours to notify all local residents at least 12 hours prior to the proposed rail loading, to the satisfaction of the Director-General.	Not Triggered	There has been no rail haulage during the audit period as the site is in the Care and Maintenance phase	AEMRs for 2014-2017	
43 (a)	Traffic and Transport Management Plan Prior to undertaking any works in the Extension Area, the Proponent shall prepare and implement a Traffic and Transport Management Plan, to the satisfaction of the Director-General. The plan must include: (a) a driver code of conduct for the project to minimise the impacts of trucks on local residents;	Compliant	The revised Traffic and Transport Management Plan, dated 10 Aug 2018, includes the Code of Conduct attached as Appendix B. The plan had been approved by DPE via letter dated 10 Aug 2018.	Code of Conduct document QU-PRO-0215-001 dated 02 Aug 2018 Daracon IMS IM-PLN-1400-001 Ardglen Quarry Traffic and Transport Management Plan Rev 04 dated 10 Aug 2018 DPE letter titled "Arglen Quarry Extension Project MP 06_0264 Recommencement of Operations" dated 9 Aug 2018. DPE letter titled "Arglen Quarry Extension Project MP 06_0264 Traffic and Transport Management Plan" dated 10 Aug 2018.	
43 (b)	Traffic and Transport Management Plan The plan must include: (b) the measures that would be put in place to ensure compliance with the driver code of conduct;	Compliant	The revised Traffic and Transport Management Plan, dated 10 Aug 2018, includes the Code of Conduct attached as Appendix B. The plan had been approved by DPE via letter dated 10 Aug 2018. Copies of Consultation Record sighted by Auditors indicate communication to drivers on Code of Conduct, weight limit of 35 tonnes etc.	Code of Conduct document QU-PRO-0215-001 dated 02 Aug 2018 DPE letter titled "Arglen Quarry Extension Project MP 06_0264 Traffic and Transport Management Plan" dated 10 Aug 2018. Signed Code of Conduct records of subcontracted drivers. Consultation Records for dates 15 Aug 18, 16 Aug 18 (eg.)	
43 (c)	Traffic and Transport Management Plan The plan must include: (c) the measures that would be taken to avoid night time train loading operations; and	Noted	The Traffic Aspects and Impacts Table in the Traffic Management Plan, Rev 04, Section 5, states: For the purpose of this operation, there will be no train loading occurring (day or night)	Daracon IMS IM-PLN-1400-001 Ardglen Quarry Traffic and Transport Management Plan Rev 04 dated 10 Aug 2018	
43 (d)	Traffic and Transport Management Plan The plan must include: (d) the procedures for notifying local residents about night time train loading activities when these occur.	Noted	The Traffic Aspects and Impacts Table in the Traffic Management Plan, Rev 04, Section 5, states: For the purpose of this operation, there will be no train loading occurring (day or night)	Daracon IMS IM-PLN-1400-001 Ardglen Quarry Traffic and Transport Management Plan Rev 04 dated 10 Aug 2018	
Visual Impact					
44 (a)	Visual Impact The Proponent shall: (a) take all practicable measures to mitigate off-site lighting impacts from the project; and	Not Triggered	Luke Robinson reported that there is no lighting arrangements on-site or off-site.	Site inspection audit	Daracon should implement all practicable measures to mitigate impacts from off-site lighting upon recommencement of operations

44 (b)	Visual Impact The Proponent shall: (b) ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting, to the satisfaction of the Director-General.	Not Triggered	Luke Robinson reported that there is no lighting arrangements on-site or off-site. This will be investigated upon recommencement of works.	Site inspection audit	Daracon should ensure that all external lighting associated with the project complies with Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting and have the satisfaction of the Director-General on record, upon recommencement of operations.
Aboriginal Cultural Heritage					
45	Aboriginal Cultural Heritage The Proponent shall not destroy any known Aboriginal objects (as defined in the National Parks and Wildlife Act 1974) without the written approval of the Director-General.	Not Triggered	Luke Robinson reported that there have been no Aboriginal objects reported at the Ardglan Quarry site. This has been confirmed via a lot search on the OEH Aboriginal Heritage Information Management System online.	Site inspection audit; AHIMS search on 4 Sept 2018	

Greenhouse Gas					
46	<p>Greenhouse Gas</p> <p>The Proponent shall:</p> <p>(a) monitor the greenhouse gas emissions generated by the project;</p> <p>(b) investigate ways to reduce greenhouse gas emissions generated by the project; and</p> <p>(c) report on greenhouse gas monitoring and abatement measures in the AEMR, to the satisfaction of the Director-General.</p>	Observation	<p>The AEMRs (section 4.3.4 Table 7) provide records of power and fuel purchased and used to determine electricity and fuel consumption for the quarry. The Environmental Manager stated that the site has been under care and maintenance from 2012 to 13 Aug 2018 with no recordable greenhouse gas emissions. Recent operations from 14 Aug 2018 involve movement of stockpiled materials out of the site.</p> <p>a) NGERS report has been sighted by Auditors that include monitoring of greenhouse gas emissions generated by all projects under Daromin Holdings Pty Limited.</p> <p>b) and c) Daracon includes greenhouse gas emissions associated with the project in their NGERS reporting however ways to reduce emissions generated by Ardglen Quarry project and other details are not provided in the AEMRs.</p>	<p>AEMRs for 2014-2017;</p> <p>Site inspection audit;</p> <p>NGERS Energy and Emissions Report, Daromin Holdings Pty Limited for Reporting year 2016-2017</p>	<p>Daracon should include emissions reduction considerations and other details relevant to Arglen Quarry in future AEMRs.</p>
Waste Minimisation					
47 (a)	<p>Waste Minimisation</p> <p>The Proponent shall:</p> <p>(a) monitor the amount of waste generated by the project;</p>	Not Triggered	<p>Site has been in care and maintenance mode since 2012 till 13 August 2018 and as such no waste has been generated by the project. There is no waste generated currently.</p>	<p>AEMRs for 2014-2017</p> <p>Waste Management Plan</p>	
47 (b)	<p>Waste Minimisation</p> <p>The Proponent shall:</p> <p>(b) investigate ways to minimise waste generated by the project;</p>	Not Triggered	<p>Site has been in care and maintenance mode since 2012 till 13 August 2018 and as such no waste has been generated by the project. There is no waste generated currently.</p>	<p>AEMRs for 2014-2017</p>	
47 (c)	<p>Waste Minimisation</p> <p>The Proponent shall:</p> <p>(c) implement reasonable and feasible measures to minimise waste generated by the project;</p>	Not Triggered	<p>Site has been in care and maintenance mode since 2012 till 13 August 2018 and as such no waste has been generated by the project. There is no waste generated currently and therefore no need to implement measures to reduce waste.</p>	<p>AEMRs for 2014-2017</p>	
47 (d)	<p>Waste Minimisation</p> <p>The Proponent shall:</p> <p>(d) ensure irrigation of treated wastewater is undertaken in accordance with DECCW's Use of Effluent by Irrigation; and</p>	Not Triggered	<p>Site has been in care and maintenance mode since 2012 till 13 August 2018 and as such no waste has been generated by the project. There is no wastewater generated currently. Luke Robinson reported that wash water from the truck wash system is reused for dust suppression on site via sprinkler truck. Irrigation using treated wastewater is not undertaken on site.</p>	<p>AEMRs for 2014-2017</p> <p>Site inspection audit</p>	
47 (e)	<p>Waste Minimisation</p> <p>The Proponent shall:</p> <p>report on waste management and minimisation in the AEMR, to the satisfaction of the Director-General.</p>	Not Triggered	<p>The 2016 AEMR reported waste produced as part of the demolition of the redundant transformer yard and other non-production wastes and quantities. Evidence of DPE approval of 2016 AEMR sighted via letter dated 19 May 2017 which did not raise any matters related to waste management on site.</p> <p>Site has been in care and maintenance mode since 2012 till 13 August 2018 and as such no waste has been generated by the project. There is no operational/production waste generated currently.</p>	<p>AEMRs for 2014-2017</p> <p>DPE Letter dated 19 May 2017 titled "Ardglen Quarry Extension MP06_0264 Annual Environmental Management Report 2016"</p>	
48	<p>Waste Minimisation</p> <p>The Proponent shall ensure that all waste generated or stored on site is assessed, classified and managed in accordance with the DECCW's Waste Classification Guidelines Part 1: Classifying Waste.</p>	Not Triggered	<p>Site has been in care and maintenance mode since 2012 till 13 August 2018 and as such no waste has been generated by the project. There is no waste generated currently.</p>	<p>AEMRs for 2014-2017</p>	

3. Schedule 4, Additional Procedures

Notification of Landowners

1	<p>Notification of Landowners</p> <p>If the results of monitoring required in Schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria, then the Proponent shall notify the Director-General and the affected landowners and/or existing or future tenants (including tenants of quarry owned properties) accordingly, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the relevant criteria.</p>	Observation	<p>In 2016, dust exceedance on 17th and 23rd April 2016 were reported to DPE. It is noted that this letter is dated 15 Mar 2016.</p> <p>A minor exceedance of dust criteria during February 2016 was reported to EPA via letter dated 15 Mar 2016.</p> <p>This has been included in the 2016 AEMR and discussed at the CCC meeting of 23 Aug 2016. The presentation made to CCC includes depositional dust gauge readings as a chart, indicating the high reading in February 2016 at monitoring station EP4.</p> <p>The minutes of this CCC meeting does not include a reference to the 'minor exceedance' of February 2016 rather notes that "Air monitoring results have reported levels consistently below criteria". The CCC includes four of the landowners in the immediate surroundings of the site.</p> <p>While the presentation to CCC in August 2016 included a chart indicating all dust measurements from May 2017 to May 2016, the chart does not include the compliance criteria and the minutes of the meeting does not refer to the dust exceedance of February 2016 as reported to EPA and DPE.</p>	<p>AEMR 2016</p> <p>Daracon Letter dated 15 Mar 16 titled Ardglan Quarry Hi Volume Air Samplers to DPE.</p> <p>Daracon letter dated 15 Mar 16 titled Ardglan Quarry Monthly Dust Deposition Gauge Results to EPA</p> <p>CCC meeting minutes of Aug 2016</p> <p>Presentation to CCC of 23 Aug 2016.</p>	Include compliance criteria level in the presentations given to CCC so that exceedances are clearly represented in the data.
Independent Review					
2	<p>Independent Review</p> <p>If a landowner (excluding quarry owned properties) considers that the operations of the project are exceeding the impact assessment criteria in Schedule 3 then he/she may ask the Director-General in writing for an independent review of the impacts of the project on his/her land.</p> <p>If the Director-General is satisfied that an independent review is warranted, the Proponent shall within 3 months of the Director-General's decision:</p> <p>(a) consult with the landowner to determine his/her concerns;</p> <p>(b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to conduct monitoring on the land to:</p> <ul style="list-style-type: none"> determine whether the project is complying with the relevant impact assessment criteria in Schedule 3; and identify the source(s) and scale of any impact on the land, and the project's contribution to this impact; and <p>(c) give the Director-General and landowner a copy of the independent review.</p>	Not Triggered	There has been no written request for review from any landowner or suggestion that the operations are exceeding the impact assessment criteria.	Site observations by Auditor, Site Audit interview with Luke Robinson	
3	<p>Independent Review</p> <p>If the independent review determines that the project is complying with the relevant impact assessment criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.</p>	Not Triggered	No independent review has been warranted.	Site observations by Auditor, Site Audit interview with Luke Robinson	
4	<p>Independent Review</p> <p>If the independent review determines that the project is not complying with the relevant impact assessment criteria in Schedule 3, and that the project is primarily responsible for this noncompliance, then the Proponent shall:</p> <p>(a) take all reasonable and feasible measures, in consultation with the landowner, to ensure that the project complies with the relevant criteria; and</p> <p>(b) conduct further monitoring to determine whether these measures ensure compliance.</p> <p>If the additional monitoring referred to above subsequently determines that the project is complying with the relevant criteria in Schedule 3, or the Proponent and landowner enter into a negotiated agreement to allow these exceedances, then the Proponent may discontinue the independent review with the approval of the Director-General.</p>	Not Triggered	No independent review has been warranted.	Site observations by Auditor, Site Audit interview with Luke Robinson	

5	<p>Independent Review</p> <p>If the independent review determines that the relevant criteria in Schedule 3 are being exceeded, then the Proponent shall:</p> <p>(a) take all reasonable and feasible measures, in consultation with the landowner, to ensure that the relevant criteria are complied with; and</p> <p>(b) conduct further monitoring to determine whether these measures ensure compliance; or</p> <p>(c) secure a written agreement with the landowner to allow exceedances of the criteria in Schedule 3.</p> <p>If the additional monitoring referred to above subsequently determines that the project is complying with the relevant criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.</p>	Not Triggered	No independent review has been warranted.	Site observations by Auditor, Site Audit interview with Luke Robinson	
6	<p>Independent Review</p> <p>If the landowner disputes the results of the independent review, either the Proponent or the landowner may refer the matter to the Director-General for resolution.</p> <p>If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (see Appendix 6).</p>	Not Triggered	No independent review has been warranted.	Site observations by Auditor, Site Audit interview with Luke Robinson	
Land Acquisition					
7 (a)	<p>Land Acquisition</p> <p>Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent shall make a binding written offer to the landowner based on:</p> <p>(a) the current market value of the landowner's interest in the property at the date of this written request, as if the property was unaffected by the project the subject of the project application, having regard to the:</p> <ul style="list-style-type: none"> existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and presence of improvements on the property and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the additional noise mitigation measures in conditions 5 and 6 of Schedule 3; 	Not Triggered	There has been no written request from any landowner for land acquisition.	Site audit interview with Luke Robinson.	
7 (b)	<p>Land Acquisition</p> <p>the Proponent shall make a binding written offer to the landowner based on:</p> <p>(b) the reasonable costs associated with:</p> <ul style="list-style-type: none"> relocating within the Liverpool Plains local government area, or to any other local government area determined by the Director-General; obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is required; and 	Not Triggered	There has been no written request from any landowner for land acquisition.	Site audit interview with Luke Robinson.	
7 (c)	<p>Land Acquisition</p> <p>the Proponent shall make a binding written offer to the landowner based on:</p> <p>(c) reasonable compensation for any disturbance caused by the land acquisition process.</p> <p>However, if at the end of this period, the Proponent and landowner cannot agree on the acquisition price of the land, and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Director-General for resolution.</p> <p>Upon receiving such a request, the Director-General shall request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer or Fellow of the Institute, to consider submissions from both parties, and determine a fair and reasonable acquisition price for the land, and/or terms upon which the land is to be acquired.</p> <p>Within 14 days of receiving the independent valuer's determination, the Proponent shall make a written offer to purchase the land at a price not less than the independent valuer's determination.</p> <p>If the landowner refuses to accept this offer within 6 months of the Proponent's offer, the Proponent's obligations to acquire the land shall cease, unless otherwise agreed by the Director-General.</p>	Not Triggered	There has been no written request from any landowner for land acquisition.	Site audit interview with Luke Robinson.	
8	<p>Land Acquisition</p> <p>The Proponent shall bear the costs of any valuation or survey assessment requested by the independent valuer, or the Director-General, and the costs of determination referred above.</p>	Not Triggered	There has been no written request from any landowner for land acquisition. As such the need for any valuation or survey assessment has not been triggered.	Site audit interview with Luke Robinson.	

9	Land Acquisition If the Proponent and landowner agree that only part of the land shall be acquired, then the Proponent shall pay all reasonable costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of the plan at the Office of the Registrar-General.	Not Triggered	There has been no written request from any landowner for land acquisition.	Site audit interview with Luke Robinson.	
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3. Schedule 5, Environmental Management, Monitoring, Auditing & Reporting

Environmental Management Strategy					
1 (a)	Environmental Management Strategy The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. This strategy must be submitted to the Director-General for approval prior to any works being undertaken in the Extension Area , and:	Not Triggered	An Environmental Management Strategy (EMS) for the project was prepared by Orogen (EMS Ver.3 for Ardglen Quarry Extension Major Project 06/0264), dated September 2010. As the works have not been initiated in the Extension Area, this document does not need to be approved yet. DPE has approved the initial EMS as well as various EMPs and Monitoring Programs. E Evidence of DPE approval of the initial EMS was sighted via letter of approval dated 25 November 2010.	http:// www.daraconquarries.com.au/Resources/Documents/Locations/Ardglen/Ardglen-EMS.pdf DPE Letter of approval signed by A/Director of Mining and Industry Projects as Delegate for the D-G, dated 25 Nov 2010 and titled "Ardglen Quarry Extension (06-0264) Approval of EMS, Environmental Management Plans and Monitoring Programs"	
1 (a)	Environmental Management Strategy (a) provide the strategic framework for environmental management of the project;	Not Triggered	The strategic framework is included in section 2 of the EMS document.	http:// www.daraconquarries.com.au/Resources/Documents/Locations/Ardglen/Ardglen-EMS.pdf	
1 (b)	Environmental Management Strategy (b) identify the statutory requirements that apply to the project;	Not Triggered	The relevant statutory requirements are stated in section 2.1 of the EMS produced by Orogen.	http:// www.daraconquarries.com.au/Resources/Documents/Locations/Ardglen/Ardglen-EMS.pdf	
1 (c)	Environmental Management Strategy (c) describe in general how the environmental performance of the project would be monitored and managed;	Not Triggered	Monitoring of Environmental Performance is addressed in section 2 and 3 of the EMS and in subsequent sections for Site Environmental Management.	http:// www.daraconquarries.com.au/Resources/Documents/Locations/Ardglen/Ardglen-EMS.pdf	
1 (d)	Environmental Management Strategy (d) describe the procedures that would be implemented to: • keep the local community and relevant agencies informed about the operation and environmental performance of the project; • receive, handle, respond to, and record complaints; • resolve any disputes that may arise during the course of the project; • respond to any non-compliance; and • respond to emergencies.	Not Triggered	Section 2.4 and Appendix D of the EMS gives general procedures for: * Community and Agency Consultation * Compliants Management Procedures * Dispute Resolution * Response to Non-compliance * Response to Environmental Emergencies	http:// www.daraconquarries.com.au/Resources/Documents/Locations/Ardglen/Ardglen-EMS.pdf	
1 (e)	Environmental Management Strategy (e) describe the role, responsibility, authority, and accountability of all the key personnel involved in environmental management of the project.	Not Triggered	EMS ver.3 prepared by Orogen Section 2.5 Table 2.1 gives the responsibilities of the Quarry Manager. Detailed description of roles, responsibilities, authorities, accountabilities and reporting for personnel involved in various monitoring aspects such as Noise Management, Blast Management, Air Quality Management, Site Water Management, Landscape Management etc are given in separate specific sections within section 3 of the EMS.	http:// www.daraconquarries.com.au/Resources/Documents/Locations/Ardglen/Ardglen-EMS.pdf	
Environmental Monitoring Program					
2	Environmental Monitoring Program The Proponent shall prepare and implement an Environmental Monitoring Program for the project to the satisfaction of the Director-General. This program must be submitted to the Director-General for approval prior to any works being undertaken in the Extension Area , and consolidate the various monitoring requirements in Schedule 3 of this approval into a single document, and be submitted to the Director-General concurrently with the submission of the relevant monitoring programs/plans.	Not Triggered	Various monitoring programs such as Noise Management, Blast Management, Air Quality Management, Site Water Management, Landscape Management etc are given in separate specific sections within section 3 of the EMS. The DPE's approval of EMS, various EMPs and Monitoring Programs is evident in the letter dated 25 Nov 2010, as sighted by Auditors. No works have been undertaken in the Extension Area to-date.	http:// www.daraconquarries.com.au/Resources/Documents/Locations/Ardglen/Ardglen-EMS.pdf DPE Letter of approval signed by A/Director of Mining and Industry Projects as Delegate for the D-G, dated 25 Nov 2010 and titled "Ardglen Quarry Extension (06-0264) Approval of EMS, Environmental Management Plans and Monitoring Programs"	
Reporting					

3 (a)	<p>Incident Reporting</p> <p>Within 7 days of detecting an exceedance of the limits/performance criteria in this approval or the occurrence of an incident that causes (or may cause) harm to the environment, the Proponent shall report the exceedance/incident to the Department and any relevant agencies. This report must:</p> <p>(a) describe the date, time, and nature of the exceedance/incident;</p>	Observation	<p>The 2016 AEMR noted that the dust gauge 3 funnel had been stolen with no data collected during Jan-Apr 2016.</p> <p>There has been an exceedance - in Feb 2016 dust gauge measurements indicating 6.4g/m2 where maximum is 4g/m2 at the D3 dust gauge. This is an exceedance as per Table 10: Long term impact assessment criteria for deposited dust. The breakup of the result was Ash 2.7g/m2 and Combustible Matter 3.7g/m2. The matter was investigated and found that a whipper snipper used for vegetation removal during dry weather had caused air borne dust at the same time the HVAS filters were being changed.</p> <p>Preventive action to review use of mechanical aids to control vegetation growth around dust gauges and use of non-mechanical aids were proposed.</p> <p>The time of the incident were not reported. An observation is raised as this matter was not reported in detail in the 2016 AEMR, which, in section 5.1 only mentions that: "The annual return covering the reporting period identified three minor non-compliances with the conditions of the licence. These non-compliances were associated with the damage / removal of the DDG funnel. No further non-compliances have occurred since April 2016."</p>	<p>AEMR 2014, 2015, 2016 and 2017 (section 4.3).</p> <p>Environmental Incident Investigation Report #51804</p> <p>Letter to EPA dated 15 March 2016 with subject: Ardglen Quarry Monthly Dust Deposition Gauge Results</p>	The incident report should note the date, time and nature of the exceedance/incident if possible. The AEMR should report all reportable incidents and exceedances.
3 (b)	<p>Incident Reporting</p> <p>This report must:</p> <p>(b) identify the cause (or likely cause) of the exceedance/incident;</p>	Compliant	<p>The 2016 AEMR noted that the dust gauge 3 funnel had been stolen with no data collected during Jan-Apr 2016.</p> <p>There has been an exceedance - in Feb 2016 dust gauge measurements indicating 6.4g/m2 where maximum is 4g/m2 at the D3 dust gauge. This is an exceedance as per Table 10: Long term impact assessment criteria for deposited dust. The breakup of the result was Ash 2.7g/m2 and Combustible Matter 3.7g/m2. The matter was investigated and found that a whipper snipper used for vegetation removal during dry weather had caused air borne dust at the same time the HVAS filters were being changed.</p> <p>Preventive action to review use of mechanical aids to control vegetation growth around dust gauges and use of non-mechanical aids were proposed. An observation is raised to condition 3(a) as this matter was not recorded in the 2016 AEMR.</p>	<p>AEMR 2014, 2015, 2016 and 2017 (section 4.3).</p> <p>Environmental Incident Investigation Report #51804</p> <p>Letter to EPA dated 15 March 2016 with subject: Ardglen Quarry Monthly Dust Deposition Gauge Results</p>	
3 (c)	<p>Incident Reporting</p> <p>This report must:</p> <p>(c) describe what action has been taken to date; and</p>	Compliant	<p>The 2016 AEMR noted that the dust gauge 3 funnel had been stolen with no data collected during Jan-Apr 2016.</p> <p>There has been an exceedance - in Feb 2016 dust gauge measurements indicating 6.4g/m2 where maximum is 4g/m2 at the D3 dust gauge. This is an exceedance as per Table 10: Long term impact assessment criteria for deposited dust. The breakup of the result was Ash 2.7g/m2 and Combustible Matter 3.7g/m2. The matter was investigated and found that a whipper snipper used for vegetation removal during dry weather had caused air borne dust at the same time the HVAS filters were being changed.</p> <p>Preventive action to review use of mechanical aids to control vegetation growth around dust gauges and use of non-mechanical aids were proposed. An observation is raised to condition 3(a) as this matter was not recorded in the 2016 AEMR.</p>	<p>AEMR 2014, 2015, 2016 and 2017 (section 4.3).</p> <p>Environmental Incident Investigation Report #51804</p> <p>Letter to EPA dated 15 March 2016 with subject: Ardglen Quarry Monthly Dust Deposition Gauge Results</p>	
3 (d)	<p>Incident Reporting</p> <p>This report must:</p> <p>(d) describe the proposed measures to address the exceedance/incident.</p>	Compliant	<p>The 2016 AEMR noted that the dust gauge 3 funnel had been stolen with no data collected during Jan-Apr 2016.</p> <p>There has been an exceedance - in Feb 2016 dust gauge measurements indicating 6.4g/m2 where maximum is 4g/m2 at the D3 dust gauge. This is an exceedance as per Table 10: Long term impact assessment criteria for deposited dust. The breakup of the result was Ash 2.7g/m2 and Combustible Matter 3.7g/m2. The matter was investigated and found that a whipper snipper used for vegetation removal during dry weather had caused air borne dust at the same time the HVAS filters were being changed.</p> <p>Preventive action to review use of mechanical aids to control vegetation growth around dust gauges and use of non-mechanical aids were proposed. An observation is raised as this matter was not recorded in the 2016 AEMR.</p>	<p>AEMR 2014, 2015, 2016 and 2017 (section 4.3).</p> <p>Environmental Incident Investigation Report #51804</p> <p>Letter to EPA dated 15 March 2016 with subject: Ardglen Quarry Monthly Dust Deposition Gauge Results</p>	

4	Annual Reporting Within 12 months of this approval, and annually thereafter, the Proponent shall submit an AEMR to the Director-General and relevant agencies. This report must:	Compliant	DPE email and letter dated 19 May 2017 regarding review and compliance of 2016 AEMR and requesting further information on rehabilitation and landscape management in future AEMR were sighted by Auditors. The 2017 AEMR was submitted to the DPE via email on 28 March 2018 as sighted by the Auditors.	AEMRs for 2014-2017 Daracon email to DPE dated 28 March 2018, with subject: Daracon Ardglen Quarry - 2017 Annual Environmental report (AEMR) DPE Letter dated 19 May 2017 titled "Ardglen Quarry Extension MP06_0264 Annual Environmental Management Report 2016"	
4 (a)	Annual Reporting This report must: (a) identify the standards and performance measures that apply to the project;	Compliant	Standards and performance measures are included in section 1 of the AEMR. DPE email and letter dated 19 May 2017 regarding review and compliance of 2016 AEMR and requesting further information on rehabilitation and landscape management in future AEMR.	AEMRs for 2014-2017 DPE Letter dated 19 May 2017 titled "Ardglen Quarry Extension MP06_0264 Annual Environmental Management Report 2016"	
4 (b)	Annual Reporting This report must: (b) describe the works carried out in the last 12 months;	Compliant	DPE email and letter dated 19 May 2017 regarding review and compliance of 2016 AEMR and requesting further information on rehabilitation and landscape management in future AEMR. AEMR includes the standards and performance measures in section 2	AEMRs for 2014-2017 DPE Letter dated 19 May 2017 titled "Ardglen Quarry Extension MP06_0264 Annual Environmental Management Report 2016"	
4 (c)	Annual Reporting This report must: (c) describe the works that will be carried out in the next 12 months;	Compliant	AEMR includes the activities proposed during the next reporting period in section 6	AEMRs for 2014-2017 DPE Letter dated 19 May 2017 titled "Ardglen Quarry Extension MP06_0264 Annual Environmental Management Report 2016"	
4 (d)	Annual Reporting This report must: (d) include a summary of the complaints received during the past year, and compare this to the complaints received in previous years;	Compliant	AEMR includes complaints in section 3.3 and Appendix 4	AEMRs for 2014-2017 DPE Letter dated 19 May 2017 titled "Ardglen Quarry Extension MP06_0264 Annual Environmental Management Report 2016"	
4 (e)	Annual Reporting This report must: (e) include a summary of the monitoring results for the project during the past year;	Compliant	AEMR includes the environmental monitoring data in section 4	AEMRs for 2014-2017 DPE Letter dated 19 May 2017 titled "Ardglen Quarry Extension MP06_0264 Annual Environmental Management Report 2016"	
4 (f)	Annual Reporting This report must: (f) include an analysis of these monitoring results against the relevant: • limits/criteria in this approval; • monitoring results from previous years; and • predictions in the EA;	Compliant	AEMR includes environmental monitoring data and compliance assessment in sections 4 and 5	AEMRs for 2014-2017 DPE Letter dated 19 May 2017 titled "Ardglen Quarry Extension MP06_0264 Annual Environmental Management Report 2016"	
4 (g)	Annual Reporting This report must: (g) identify any trends in the monitoring results over the life of the project;	Compliant	AEMR includes environmental monitoring data and compliance assessment in sections 4 and 5	AEMRs for 2014-2017 DPE Letter dated 19 May 2017 titled "Ardglen Quarry Extension MP06_0264 Annual Environmental Management Report 2016"	
4 (h)	Annual Reporting This report must: (h) identify and discuss any non-compliance during the previous year; and	Compliant	AEMR includes environmental monitoring data and compliance assessment in sections 4 and 5	AEMRs for 2014-2017 DPE Letter dated 19 May 2017 titled "Ardglen Quarry Extension MP06_0264 Annual Environmental Management Report 2016"	
4 (i)	Annual Reporting This report must: (i) describe what actions were, or are being, taken to ensure compliance.	Compliant	AEMR includes analysis of results, discussion and conclusion in section 4 for the various monitoring parameters. Section 5 includes a brief Compliance Assessment section summarising compliance with EPL and Discrepancies with predicted and actual quarry operations.	AEMRs for 2014-2017 DPE Letter dated 19 May 2017 titled "Ardglen Quarry Extension MP06_0264 Annual Environmental Management Report 2016"	

Independent Environmental Audit					
5 (a)	Independent Environmental Audit Prior to 31 December 2012, and every 5 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must: (a) be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been endorsed by the Director-General;	Compliant	This Audit. DPE approved the proposed audit team via letter dated 11 July 2018. The previous IEA was undertaken in 2013 by JM Environments. Lead Auditor was Dr Jamie McMahon and the team included noise specialist and rehabilitation specialist. The initial IEA was not conducted prior to 31 December 2012, it was commissioned only in December 2013	DPE letter dated 11 July 2018 signed by Leah Cook, Team Leader Compliance. JME3006 Environmental Audit Report	. Daracon should ensure subsequent audits are commissioned on time.
5 (b)	Independent Environmental Audit This audit must: (b) assess the environmental performance of the project, and its effects on the surrounding environment;	Compliant	This Audit. DPE approval letter requested that the site audit inspection is completed by 31 August 2018 - the site audit was undertaken on 21 August 2018 where site environmental performance was reviewed to further inform desktop review. The previous IEA was undertaken in 2013 by JM Environments. The report includes environmental performance assessment.	JME3006 Environmental Audit Report	
5 (c)	Independent Environmental Audit This audit must: (c) assess whether the project is complying with the relevant standards, performance measures, and statutory requirements;	Compliant	This Audit is being undertaken with assessment of compliance with relevant standards, performance measures and requirements as per conditions of consent and EPL. The previous IEA was undertaken in 2013 by JM Environments. The report includes review against all relevant conditions of consent and other requirements.	JME3006 Environmental Audit Report	
5 (d)	Independent Environmental Audit This audit must: (d) review the adequacy of any strategy/plan/program required under this approval; and, if necessary,	Compliant	This Audit includes review of various management plans and programs as required under this approval. The previous IEA was undertaken in 2013 by JM Environments.	JME3006 Environmental Audit Report	
5 (e)	Independent Environmental Audit This audit must: (e) recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval. Note: This audit team must be led by a suitably qualified auditor, and include experts in the field of noise and rehabilitation.	Compliant	This Audit includes review of various management plans and programs as required under this approval and includes recommendations for identified non-compliances. The previous IEA was undertaken in 2013 by JM Environments and included various recommendations.	JME3006 Environmental Audit Report	
6	Independent Environmental Audit Within 6 weeks of completing this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General with a response to any recommendations contained in the audit report.	Compliant	This Audit. The previous IEA was undertaken in Nov 2013 by JM Environments. The report of this IEA was dated in July 2014. As per the April 2015 letter from DPE, it is evident that the IEA report was submitted to DPE in July 2014 within the required timeline.	JME3006 Environmental Audit Report dated July 2014; DPE letter to Buttail Gravel Pty Ltd dated 14 April 2015 titled "Ardglen Quarry Section 122Q Investigation and Outcomes".	
7	Independent Environmental Audit Within 3 months of submitting the audit report to the Director-General, the Proponent shall review and if necessary revise the strategies/plans/programs required under this approval, to the satisfaction of the Director-General.	Compliant	This Audit. The previous IEA was undertaken in 2013 by JM Environments. There were no revisions to any plans following the submission of that report as the Quarry was under care & maintenance phase until 14 August 2018.	JME3006 Environmental Audit Report	
Community Consultative Committee					
8	Community Consultative Committee The Proponent shall operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Director-General, in general accordance with the Guideline for Establishing and Operating Community Consultative Committees for Mining Projects.	Compliant	CCC exists and is explained in section 3 of the AEMR; meeting minutes are available on the Daracon Quarries website: http://www.daraconquarries.com.au/Locations/Ardglen/Community/ The CCC includes four of the landowners in the immediate surroundings of the site.	AEMRs for 2014-2017 Daracon Ardglen Quarry website: http://www.daraconquarries.com.au/Locations/Ardglen/Community/ CCC meeting minutes of Aug 2016 Presentation to CCC of 23 Aug 2016.	

Access to Information					
9	<p>Access to Information</p> <p>Within 3 months of the approval of any plan/strategy/program required under this approval (or any subsequent revision of these plans/strategies/programs), or the completion of the audits or AEMRs required under this approval, the Proponent shall:</p> <p>(a) provide a copy of the relevant document/s to the relevant agencies and CCC; and</p> <p>(b) put a copy of the relevant document/s on its website.</p>	Compliant	<p>There were no revisions to any plans following the submission of that report as the Quarry was under care & maintenance phase until 14 August 2018.</p> <p>Traffic and Transport Management Plan / program has recently been revised and was approved by DPE on 10 August 2018. Daracon should provide a copy of this document to relevant agencies and CCC and make it available on the website.</p> <p>AQMP and Noise Management Plan are currently under review. Road Safety Audit is being engaged as per proposal sighted by the Auditors.</p>	<p>AEMR for 2014, 2015, 2016, 2017</p> <p>DPE letter dated 10 Aug 2018 titled "Ardglen Quarry Extension Project (MP 06-0264) Traffic and Transport Management Plan</p> <p>Crossroads Civil Design proposal dated August 2018 for Road Safety Audit.</p> <p>Traffic and Transport Management Plan rev 4 dated 10 Aug 2018</p>	Daracon should provide a copy of the approved TTMP to relevant agencies and CCC and make it available on the website.
10	<p>Access to Information</p> <p>During the development, the Proponent shall:</p> <p>(a) include a copy of this approval, as may be modified from time to time, on its website;</p> <p>(b) provide a full summary of monitoring results required under this approval on its website; and</p> <p>(c) update these results on a regular basis (at least every 6 months).</p>	Compliant	<p>A copy of the project approval and environmental monitoring results are available on Daracon Quarries website, as sighted by the Auditors.</p>	<p>http://www.daraconquarries.com.au/Locations/Ardglen/Environmental-Management/</p> <p>http://www.daraconquarries.com.au/Environmental/Quarry-Monitoring-Data/</p>	

Ardglen Quarry Extension																				
Independent Environmental Audit																				
Detailed Findings and Recommendations																				
Statement of Commitments																				
Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation															
Statement of Commitments																				
Scope of Development																				
1	Scope of Development The project will be carried out generally in accordance with the following plans and documentation, except where amended by the conditions of the project approval: <ul style="list-style-type: none">the Environmental Assessment (EA) prepared by ERM (June 2007) and accompanying specialist reports;the Response to Submissions report prepared by ERM (November, 2007); and this revised Statement of Commitments.	Noted																		
Statutory Requirements																				
2	Statutory Requirements All necessary licences, permits and approvals will be obtained and maintained for the project.	Noted																		
3	Statutory Requirements In Accordance with section 104A of the EP&A Act, the proponent will surrender the existing development consent applying to Lot DP 1001734, issued by Murrurundi Shire Council in May 1994.	Compliant	DPE letter regarding recommencement of operations confirms that all development consents and continuing use rights were surrendered by Daracon Quarries as noted in a DPE letter of 20 Aug 2015.	DPE letter dated 20 August 2015 - Surrender of Consent DPE letter dated 9 Aug 2018 regarding recommencement																
General																				
4	General The proponent will prepare and implement an Environmental Management System (EMS) based the AS/NZA ISO 14001:2004 - Environmental Management Systems. The EMS will: <ul style="list-style-type: none">incorporate an operational Environmental Management Plan (EMP);detail potential environmental risks due to operation of the proposed quarry;provide measures for the prevention. minimisation and management of these impacts to within acceptable limits; andprovide a means for the project to improve environmental performance and move towards environmental sustainability.	Compliant	Daracon has prepared an EMP for Ardglen Quarry, which has been certified by SAI Global to ISO 14001 with Licence CEM C10016 - Rev 2 is dated 1 December 2010 Environmental Management Strategy (EMS) Ver.3 for Ardglen Quarry Extension Major Project 06/0264 prepared by Orogen, dated September 2010. The EMS includes: <ul style="list-style-type: none">* Operational site environmental management in sections 3-5 and appendices* potential environmental risk assessment in section 3 and various management plans included in the appendices* measures to manage the impacts to various parameters such as air quality, water and landscape in various management plans included in the appendices* plans to improve environmental performance and sustainability in section 3-5 and appendices	Ardglen Quarry EMP BAR01 Rev 2 dated 1 Dec 2010 http:// www.daraconquarries.com.au/Resources/Documents/Locations/Ardglen/Ardglen-EMS.pdf																
Water Management																				
5	Water Management The proponent will prepare and implement a Surface Water Management Plan for the project that will include: <ul style="list-style-type: none">an Erosion and Sediment Control Plan (including procedures to minimise erosion, capture of sediment on-site, and maintenance of control structures);a Site Water Balance; anda Water Quality Monitoring Program	Compliant	The Site Water Management Plan sighted by Auditors include: <ul style="list-style-type: none">* Erosion and Sediment Control Plan in section 4* A Site water balance in section 3 (including AWBM and GoldSim models)* Surface water monitoring program in section 5	Site Water Management Plan 6 Aug 2010 by AECOM, ref Document No. 60155622																
Biodiversity																				
6	Biodiversity The proponent will implement the biodiversity offset strategy outlined in the EA, which includes the conservation and long term protection of the areas described in Table 1. Table 1: Biodiversity Offset Areas <table><tr><th>Land Description</th><th>Area (ha)</th><th>Proposed Management Strategy</th></tr><tr><td>Lot 187 DP 751028</td><td>8.2</td><td>stock removal, weed control, planting of EEC trees, transport of logs and rocks, provision of nest boxes</td></tr><tr><td>Lot 39 DP 751028</td><td>11.65</td><td>stock removal, weed control, major planting of EEC trees and grasses, transport of logs and rocks</td></tr><tr><td>Lot 49 DP 751028</td><td>16.3</td><td>stock removal, weed control</td></tr><tr><td>Total</td><td>36.15</td><td></td></tr></table>	Land Description	Area (ha)	Proposed Management Strategy	Lot 187 DP 751028	8.2	stock removal, weed control, planting of EEC trees, transport of logs and rocks, provision of nest boxes	Lot 39 DP 751028	11.65	stock removal, weed control, major planting of EEC trees and grasses, transport of logs and rocks	Lot 49 DP 751028	16.3	stock removal, weed control	Total	36.15		Not Compliant	The three off-set areas have been established and are described in the Off-set strategy. The Auditor viewed the off-set area in Lot 187 and while the presence of nest boxes was observed, no evidence of placement of logs and rocks, or the planting of EEC trees was sighted. It was also noted that while the area was fenced, that small grazing animals, such as goats (that are present on the site) would be able to move under the fence in at least one location.		It is recommended that an audit of all off-set areas be undertaken against the commitments made in the Landscape Management Plan (and Off-Set Strategy) and a program of works is prepared to implement the requirements of the Strategy.
Land Description	Area (ha)	Proposed Management Strategy																		
Lot 187 DP 751028	8.2	stock removal, weed control, planting of EEC trees, transport of logs and rocks, provision of nest boxes																		
Lot 39 DP 751028	11.65	stock removal, weed control, major planting of EEC trees and grasses, transport of logs and rocks																		
Lot 49 DP 751028	16.3	stock removal, weed control																		
Total	36.15																			

7	<p>Biodiversity</p> <p>The proponent will prepare a detailed biodiversity offset management plan in consultation with the DECC and submit it for approval by the Director-General. The plan will include:</p> <ul style="list-style-type: none">• proposed staging;• planting details such as final density, species mix, sowing rates, fertiliser;• proposed maintenance schedule;• weed control;• importation of rock and log shelter;• topsoil handling;• fencing;• pre-clearing surveys of all hollow bearing trees within the proposed quarry extension area;• herbivore control; and• number and location of nest boxes.	Compliant	<p>Communication from DoP (A/Director Mining and Industry Projects as delegate of DG) dated 25 Nov 2010 details approval of various plans including Landscape Management Plan which includes the Rehabilitation and Biodiversity Offset Management Plan.</p>	<p>Environmental Management Strategy developed by Orogen (September 2010) Appendix I - Landscape Management Plan</p> <p>DoP Letter of approval signed by A/Director of Mining and Industry Projects as Delegate for the D-G, dated 25 Nov 2010 and titled "Ardglen Quarry Extension (06-0264) Approval of EMS, Environmental Management Plans and Monitoring Programs".</p>	
8	<p>Biodiversity</p> <p>The proponent will make suitable arrangement to provide appropriate long term security for the offset areas.</p>	Not Compliant	<p>Section 4.9 of the plan shows commitment to "securing the long term security of the offset sites by November 2011 through a Voluntary Conservation Agreement with the NSW Minister of Environment, DECCW or via other mechanisms". Daracon has not provided long term security for the off-set areas as per the stipulated timeframe. They are in the process of applying for section 88B [Conveyance Act 1919] instrument to create an easement over the offset areas to protect those areas.</p> <p>The Auditor sighted the application for the easement and understands that the application had yet to be submitted at the time of reporting.</p>	<p>Section 31B of the Real Property Act 1900 Transfer Granting Easement Etc Over Own Land</p> <p>Section 31B of the Real Property Act 1900 Transfer Including Covenant- 88B submission documentation.</p>	<p>It is recommended that the application for easements over the off-set areas is submitted as soon as practical.</p>
Noise					
9	<p>Noise</p> <p>The proponent will continue to implement the following measure, which are currently in place at Ardglen Quarry, to mitigate noise impacts:</p> <ul style="list-style-type: none">• quarry hours are restricted to between 6am and 5:30pm;• noise created by the haul trucks, both empty and loaded, is reduced by imposing a speed limit of 50 km/h when travelling on local roads between the quarry and the highway. Trucks on site are limited to a speed of 25 km/h;• all on-site, fixed and mobile diesel-powered plant, excluding road vehicles, are correctly fitted and maintained to manufacturer specifications. Particular attention is given to engine exhaust systems and the care and maintenance of mufflers. <p>Further noise control is nominated through the implementation of the following measures:</p> <ul style="list-style-type: none">• reduction of equipment through the separation of the site activities to overburden stripping and extraction , whereby they do not occur simultaneously;• rail loading will be limited to the day period (7am to 6pm) as much as practicable;• the surge bin will be lined with latex or polymer liners to reduce impulsive noise;• a sheet metal enclosure will be built around the rail loader discharge and extend to a include the rail wagon being loaded. The enclosure will be constructed of sheet metal and will cover the length of a minimum of three wagons whereby the wagon being loaded will be in the centre of the enclosure. the enclosure will be open at the ends and will contain a ruff which will be connected to the rail loader discharge. Gaps between the loader discharge and the roof will be sealed;• the two scrapers initially assigned for overburden stripping will be replaced by one excavator and two articulated dump trucks;• the existing three crushers will be acoustically treated by extending the metal cladding on the crushing and screening station building to ground level with no gaps or openings;• the existing screens will be located behind earth bunds; and• mobile acoustic barriers or earth mounds will surround the drill rig and any mobile plant situated on the surface during initial stripping; and• where land slopes away from stripping activities to receivers, barriers will be raised to a height of 4 metres, so there is no direct line of sight to receivers.	Compliant	<p>The following Table 1 activities are not undertaken at the site during care and maintenance mode:</p> <p>Topsoil/overburden removal / emplacement</p> <p>Blasting</p> <p>Drilling, extraction and transfer of material out of the pit</p> <p>Processing and stockpiling of material</p> <p>Audible maintenance activities</p> <p>Rail loading</p> <p>Recent recommencement of truck loading and distribution of stockpiled material are undertaken as per the allowed operational hours, as per truck movement register records and response from Luke Robinson.</p> <p>Truck movement register sighted - entries for dates 15th August and 17th August were inspected. Truck docket book inspected - 17th August dockets from 101371 to 101398.</p> <p>There were no train loading or blasting operations during the audit period.</p> <p>There is no crushing undertaken at the site.</p>	<p>AEMR for 2014, 2015, 2016, 2017</p> <p>Truck movement register (on site)</p> <p>Truck loading docket book (on site) signed by truck driver - docket numbers 101371 - 101398 (17 Aug 18) 101344 - 101370 (16 Aug 18)</p>	

10	<p>Noise</p> <p>Except during night-time rail loading activities, the proponent will ensure that the noise generated by the project does not exceed the levels set out in Table 2, at any privately-owned residence, unless a specific agreement is reached with the landholder, in which case the proponent may exceed the noise limits set out in table 2 in accordance with the negotiated noise agreement.</p> <p>Table 2 Noise Criteria</p> <p><i>Table 2 Noise Criteria</i></p> <table><tr><th>Land</th><th>Noise Level LAeq dB(A)</th></tr><tr><td>1 - Burraston</td><td>35</td></tr><tr><td>2 - Rose</td><td>35</td></tr><tr><td>4 - CM Thomson</td><td>44</td></tr><tr><td>5 - M Taylor</td><td>45</td></tr><tr><td>6 - S Thompson</td><td>45</td></tr><tr><td>9 - Bates</td><td>37</td></tr><tr><td>10 - Avery</td><td>38</td></tr><tr><td>11 - Shipman</td><td>37</td></tr><tr><td>12 - Hall</td><td>36</td></tr><tr><td>13 - McGhie</td><td>35</td></tr><tr><td>14 - Purtell</td><td>36</td></tr><tr><td>15 - J Taylor</td><td>43</td></tr><tr><td>16 - Boyba</td><td>40</td></tr></table>	Land	Noise Level LAeq dB(A)	1 - Burraston	35	2 - Rose	35	4 - CM Thomson	44	5 - M Taylor	45	6 - S Thompson	45	9 - Bates	37	10 - Avery	38	11 - Shipman	37	12 - Hall	36	13 - McGhie	35	14 - Purtell	36	15 - J Taylor	43	16 - Boyba	40	Compliant	No Noise exceedances have been reported during the audit period.	DPE review of AEMR 2017 (31 May 2018).	Email letter from DPE Senior Compliance Officer dated 11 July 2018
Land	Noise Level LAeq dB(A)																																
1 - Burraston	35																																
2 - Rose	35																																
4 - CM Thomson	44																																
5 - M Taylor	45																																
6 - S Thompson	45																																
9 - Bates	37																																
10 - Avery	38																																
11 - Shipman	37																																
12 - Hall	36																																
13 - McGhie	35																																
14 - Purtell	36																																
15 - J Taylor	43																																
16 - Boyba	40																																
Blasting and Vibration																																	
11	<p>Blasting and Vibration</p> <p>The proponent will implement the following measures to mitigate the impacts of blasting and vibration:</p> <ul style="list-style-type: none">• blasting will be limited to between the hours of 10am and 4pm, Monday to Friday and residents in the vicinity of the quarry will be given adequate notification of forthcoming blasts;• air-blast overpressure from any blast will not exceed 120 dB(Lpeak) at any privately-owned residence for more than 5% of all blasts over a 12 month period. It will not exceed 115 dB(Lpeak) at any time , unless specific prior agreement is reached with the affected landholder;• peak particle velocity (ppv) from ground vibration will not exceed 5 mm/s at any privately-owned residence for more than 5% of the total number of blasts over a 12 month period. The maximum level will not exceed 100m/s at any time;• the existing blast management strategy will continue to be implemented to ensure appropriate charge masses are used to avoid excessive air blast overpressure and ground vibrations; and• a Blast Monitoring Program will be prepared and submitted to the Director-General for approval.	Not Triggered	No blasting has been undertaken on the site during the audit period as the site is in its care and maintenance phase with recently recommenced transportation of stockpiled materials.	AEMRs for 2014-2017																													
Air Quality																																	
12	<p>Air Quality</p> <p>In addition to the dust mitigation measures currently employed, the proponent will implement the following measures to ensure particulate matter emissions are minimised:</p> <ul style="list-style-type: none">• revegetation of exposed surfaces where possible;• sealing the haul road;• limiting the speed limit on unpaved surfaces to 15 km/hr;• high level watering of unpaved road surfaces (greater than 2L/m2/hr);• covering all loads leaving the site;• building a wheel wash at the end of the unpaved section of the haul road (after the weighbridge); and• wet suppression or chemical coating of static stockpiles.	Not Compliant	<p>At the site audit, the Auditors observed that the following requirements have been met:</p> <ul style="list-style-type: none">* Sealing of haul road* covering of all loads leaving the site* operational wheel wash at the end of unpaved section within the site* wet suppression of static stockpiles with recycled water from the wheel wash system <p>The approved revised Traffic and Transportation Management Plan address:</p> <ul style="list-style-type: none">* limiting speed limit on unpaved surfaces to 15km/hr* covering of all loads leaving the site. <p>Revegation of exposed surfaces has not been undertaken - progressive rehabilitation of the site has not been undertaken.</p>	<p>Traffic and Transportation Management Plan</p> <p>AEMR for 2014, 2015, 2016, 2017</p> <p>Truck movement register (on site)</p> <p>Truck loading docket book (on site) signed by truck driver - docket numbers 101371 - 101398 (17 Aug 18) 101344 - 101370 (16 Aug 18)</p> <p>Site audit observations</p>	Plan and undertake progressive rehabilitation of the site including revegetation of exposed surfaces where possible.																												
13	<p>Air Quality</p> <p>The proponent will prepare and implement an air quality monitoring program for the project. The program will include:</p> <ul style="list-style-type: none">• a series of dust deposition gauges operated in accordance with Australian/New Zealand Standard AS/NZS 3580.10.1:2003; and• a series of high volume or low volume air samplers to monitor levels of PM10, operated in accordance with Australian/New Zealand AS/NZS 3580.9.6:2003 and AS/NZS 3580.9.6:2003.	Compliant	<p>Section 6 of the AQMP details the Air Quality Monitoring Program including the relevant standards, monitoring locations and dust deposition gauges operated. Table 12 in the AQMP details the monitoring locations against Figures attached the plan, Australian Map Grid coordinates where the gauges are located and the Sampling method (standards).</p> <p>The monitoring data is discussed in the AEMRs for each year.</p>	AEMRs for 2014 - 2017	Air Quality Management Plan (including Monitoring Program and Compliance Protocol) prepared by AECOM dated 7 July 2010																												
Rehabilitation																																	

14	Rehabilitation The proponent will prepare a detailed biodiversity offset plan to provide an integrated plan for the whole site, considering the existing quarry areas, the western extension, the areas of box-gum woodland to be preserved and the areas to be planted as offsets. This plan will be prepared in liaison with the DECC and lodged for approval by the Director-General.	Compliant	Environmental Management Strategy developed by Orogen (September 2010) includes Landscape management plan in section 3.5 and Appendix I. Section 4 is the Rehabilitation and Biodiversity Offset Management Plan. Evidence of approval of the experts engaged tp prepare the plan was not sighted however communication from DoP (A/Director Mining and Industry Projects as delegate of DG) dated 25 Nov 2010 details approval of various plans including the Landscape Management Plan which contains the Rehabilitation and Biodiversity Offset Management Plan	Environmental Management Strategy developed by Orogen (September 2010) Appendix I - Landscape Management Plan Section 4 and Appendix B DoP Letter of approval signed by A/Director of Mining and Industry Projects as Delegate for the D-G, dated 25 Nov 2010 and titled "Ardglen Quarry Extension (06-0264) Approval of EMS, Environmental Management Plans and Monitoring Programs".	
15	Rehabilitation The proponent will progressively rehabilitate the site, generally in accordance with the <u>rehabilitation strategy outlined in the EA.</u>	Not Compliant	Revegetation of exposed surfaces has not been undertaken - progressive rehabilitation of the site has not been undertaken.		Plan and undertake progressive rehabilitation of the site including revegetation of exposed surfaces where possible.
16	Rehabilitation The proponent will lodge a rehabilitation bond with the Director-General to ensure that rehabilitation of the site is satisfactorily completed, generally in accordance with the rehabilitation strategy outlined in the EA.	Compliant	Letter from Daracon to DPE dated 29 Sept 2016 and Letter from DPE Resources Assessment Director dated 30 Sept 2016 confirms and accepted a calculated amount of \$731,154.37. The determination of costs for rehabilitation bond 2016-2020 has been presented in a report by conacher consulting dated September 2016 Ref 6037/2 Auditors sighted record of an unconditional undertaking Bond No 201610-0190 by asset insure dated 26 Oct 2016 for Swiss RE International SE, this had been prepared under Power of Attorney dated 31 July 2014	Letter from DPE Resources Assessment Director dated 30 Sept 2016 Letter from Daracon to DPE dated 29 Sept 2016 sent by Greg Dressier Unconditional undertaking Bond No 201610-0190 Conacher Consulting report dated September 2016 Ref 6037/2	
Traffic Management and Access					
17	Traffic Management and Access The proponent will not transport more than 500,000 tonnes of product from the site each year.	Compliant	During 2014-2017 the Quarry has been "in Care & Maintenance" phase with no extraction/operations conducted at the site. Transportation of stockpiled material has recommenced as of 14 August 2018 within allowed limits.	Traffic and Transportation Management Plan AEMR for 2014, 2015, 2016, 2017 Truck movement register (on site) Truck loading docket book (on site) signed by truck driver - docket numbers 101371 - 101398 (17 Aug 18) 101344 - 101370 (16 Aug 18)	
18	Traffic Management and Access The proponent will keep daily records of: • the type and amount of product transported from the site and the method of transportation i.e. road or rail; and • the type and amount of quarry material imported onto the site and the method of transportation i.e. road or rail.	Compliant	During 2014-2017 the Quarry has been "in Care & Maintenance" phase with no extraction/operations conducted at the site. Transportation of stockpiled material has recommenced as of 14 August 2018 within allowed limits. There is no movement of material via rail.	Traffic and Transportation Management Plan AEMR for 2014, 2015, 2016, 2017 Truck movement register (on site) Truck loading docket book (on site) signed by truck driver - docket numbers 101371 - 101398 (17 Aug 18) 101344 - 101370 (16 Aug 18)	
19	Traffic Management and Access The proponent will maintain the quarry access route from the New England Highway to the quarry entrance, to at least its present standard (two lane rural road)< to the satisfaction of Council.	Compliant	Auditors have sighted an email from Alice Elsley, Town Planner Liverpool Plains Shire Council (LPSC) dated 7 Aug 2018 confirming satisfaction of Council that there is adequate Local Road infrastructure and safety measures in place from the Quarry access off High Street to the New England Highway to permit the increase in road transport out of the quarry from 250,000t/annum to 500,000t/annum. The email trail includes a response dated 19 Apr 2018 from the Director of Environmental and Economic Development Services at LPSC confirming email as the method of liaison for continued communication	Email from Town Planner Liverpool Plains Shire Council dated 7 August 2018 with Subject: RE: Ardglen Quarry - acknowledgement of receipt of email 19 Apr 2018.	

Visual Amenity					
20	<p>Visual Amenity</p> <p>The proponent will implement the following mitigation measures reduce the potential visual impacts of the project:</p> <ul style="list-style-type: none"> those areas of the quarry in which the resource has been exhausted will be progressively rehabilitated and revegetated; and further planting will be undertaken along the ridgeline to the west of the proposed extension area 	Not Compliant	<p>Progressive rehabilitation and revegetation of the site has not been undertaken.</p> <p>Planting along the ridgeline to the west of the Extension Area has not been undertaken</p>	<p>AEMRs 2014-2017</p> <p>Site Audit observations</p>	<p>Plan and undertake progressive rehabilitation of the site including revegetation of exposed surfaces where possible.</p> <p>Planting along the ridgeline to the west of Extension Area should be undertaken and included in the Rehabilitation Plan</p>
Aboriginal Cultural Heritage					
21	<p>Aboriginal Cultural Heritage</p> <p>Should any Aboriginal objects (artefacts) be exposed during ground surface disturbance, all works involving ground surface disturbance will be suspended. A representative of the Nungaroo Local Aboriginal Land Council and an archaeologist will conduct an assessment of the significance of the Aboriginal object(s) and identify appropriate mitigation and management measures.</p>	Not Triggered	<p>Luke Robinson reported that there have been no Aboriginal objects reported at the Ardglen Quarry site. This has been confirmed via a lot search on the OEH Aboriginal Heritage Information Management System online.</p>	<p>Site inspection audit;</p> <p>AHIMS search on 4 Sept 2018</p>	
Community Consultation					
22	<p>Community Consultation</p> <p>The proponent will continue to engage the community in consultation, with the aim of providing the community with up-to-date information in relation the project and quarry operations in general, and allowing the community to provide feedback and raise any issues or concerns. On-going consultation will include distribution of an annual community newsletter and individual face-to-face meetings with adjoining landowners and other stakeholders when required.</p>	Compliant	<p>A Community Consultative Committee (CCC) has been established and is explained in section 3 of the AEMR; meeting minutes are available on the Daracon Quarries website: http://www.daraconquarries.com.au/Locations/Ardglen/Community/</p> <p>The CCC includes four landowners in the immediate surroundings of the site.</p> <p>Presentation providing information to CCC during the August 2016 CCC meeting has been sighted by the Auditors.</p>	<p>AEMRs for 2014-2017</p> <p>Daracon Ardglen Quarry website</p> <p>CCC meeting minutes of Aug 2016</p> <p>Presentation to CCC of 23 Aug 2016.</p>	
Annual Reporting					
23	<p>Annual Reporting</p> <p>The proponent will prepare and submit to the Director-General an Annual Environmental Management Report (AEMR). The AEMR will:</p> <ul style="list-style-type: none"> include a summary of the environmental monitoring results for the project for the past year; include an analysis of the monitoring results against relevant limits/criteria and monitoring results from previous years; and identify and discuss any non-compliances during the past year and detail any actions taken to ensure compliance. 	Compliant	<p>There is evidence of submission of the AEMR for the audit period.</p> <p>AEMR includes:</p> <ul style="list-style-type: none"> * Summary of environmental monitoring results for the past (reporting) year in section 4 * Analysis of environmental monitoring results against relevant compliance criteria in section 4 and Appendices * Discussion on non-compliances in section 5 	<p>AEMRs for 2014-2017</p> <p>DPE Letter dated 19 May 2017 titled "Ardglen Quarry Extension MP06_0264 Annual Environmental Management Report 2016"</p>	

Ardglen Quarry Extension															
Independent Environmental Audit															
Detailed Findings and Recommendations															
Environment Protection Licence No 1115															
Clause	Requirement	Compliance	Audit Finding	Objective Evidence	Recommendation										
Administrative Conditions															
What the licence authorises and regulates															
A1.2	<div>What the licence authorises and regulates</div> <div>This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, feebased activity classification and the scale of the operation.</div> <div>Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.</div> <table><tr><th colspan="2">Scheduled Activity</th></tr><tr><td colspan="2">Crushing, grinding or separating</td></tr><tr><td colspan="2">Extractive activities</td></tr></table> <div></div> <table><tr><th>Fee Based Activity</th><th>Scale</th></tr><tr><td>Land-based extractive activity</td><td>> 100000 - 500000 T obtained</td></tr></table>	Scheduled Activity		Crushing, grinding or separating		Extractive activities		Fee Based Activity	Scale	Land-based extractive activity	> 100000 - 500000 T obtained	Compliant	Based on information reviewed in the AEMRs, EPL Annual Returns, site observations and discussions with Luke Robinson of Daracon, there are no other Scheduled Activities undertaken at the site during the audit period.	<div>Site investigations</div> <div>AEMRs 2014-2017</div> <div>EPL Annual returns for: 2014 (dated 26 Feb 2015), 2015 (dated 26 Feb 2016) 2016 (dated 27 Feb 2017) and 2017 (dated 15 Feb 2018)</div>	
Scheduled Activity															
Crushing, grinding or separating															
Extractive activities															
Fee Based Activity	Scale														
Land-based extractive activity	> 100000 - 500000 T obtained														
Premises or plant to which this licence applies															
A2.1	<div>Premises or plant to which this licence applies</div> <div>The licence applies to the following premises:</div> <table><tr><th>Premises Details</th></tr><tr><td>ARDGLEN QUARRY</td></tr><tr><td>QUARRY ROAD</td></tr><tr><td>ARDGLEN</td></tr><tr><td>NSW</td></tr><tr><td>2338</td></tr><tr><td>LOT 1, DP 1001734</td></tr></table>	Premises Details	ARDGLEN QUARRY	QUARRY ROAD	ARDGLEN	NSW	2338	LOT 1, DP 1001734	Noted	<div>It is noted that the EPL kept on site has an archive date of 02 Oct 2009 with a review date noted as 20 Sep 2014.</div> <div>As per the NSW EPA POEO Licences database, the EPL 1115 has an issued date of 27 Apr 2000 with Licence Version date of 2 Sep 2011.</div>	<div>EPL 1115</div> <div>NSW EPA POEO Licences database (online at https://apps.epa.nsw.gov.au/prpoeo app/)</div>				
Premises Details															
ARDGLEN QUARRY															
QUARRY ROAD															
ARDGLEN															
NSW															
2338															
LOT 1, DP 1001734															
Information supplied to the EPA															
A4.1	<div>Information supplied to the EPA</div> <div>Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.</div> <div>In this condition the reference to "the licence application" includes a reference to:</div> <div>(a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and</div> <div>(b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.</div>	Compliant	<div>Based on information reviewed in the AEMRs, EPL Annual Returns, site observations and discussions with Luke Robinson of Daracon, there are no other notable activities undertaken at the site.</div> <div>There were non-compliances noted in the EPL Annual Returns for the years 2015 (dust monitoring due to dust monitor bottles being stolen at Location 3) and 2016 (dust monitoring due to sample bottles being broken/stolen during January, March and April at Location 3). Non-compliances were reported to the EPA. The EPA has not recommended any actions for 2015 non-conformances and has dictated that future compliance with the conditions must be monitored in response to the 2016 non-conformances.</div>	<div>Site investigations</div> <div>AEMRs 2014-2017</div> <div>EPL Annual returns for: 2014 (dated 26 Feb 2015), 2015 (dated 26 Feb 2016) 2016 (dated 27 Feb 2017) and 2017 (dated 15 Feb 2018)</div>											

Discharges to Air and Water and Applications to Land																					
Location of monitoring/discharge points and areas																					
P1.1	<p>Location of monitoring/discharge points and areas</p> <p>The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.</p> <table><thead><tr><th>EPA Identification no.</th><th>Type of Monitoring Point</th><th>Type of Discharge Point</th><th>Description of Location</th></tr></thead><tbody><tr><td>2</td><td>Dust Monitoring</td><td></td><td>Dust deposition gauge located at the point identified as receptor 2 on the map titled" Figure 6.1 - Location of Receptors" in the report titled "Ardglen Quarry Extension - Environmental Assessment" dated 14 December 2006.</td></tr><tr><td>3</td><td>Dust Monitoring</td><td></td><td>Dust deposition gauge located at the point identified as receptor 5 on the map titled" Figure 6.1 - Location of Receptors" in the report titled "Ardglen Quarry Extension - Environmental Assessment" dated 14 December 2006.</td></tr><tr><td>4</td><td>Dust Monitoring</td><td></td><td>Dust deposition gauge located at the point identified as receptor 7 on the map titled" Figure 6.1 - Location of Receptors" in the report titled "Ardglen Quarry Extension - Environmental Assessment" dated 14 December 2006.</td></tr></tbody></table>	EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Description of Location	2	Dust Monitoring		Dust deposition gauge located at the point identified as receptor 2 on the map titled" Figure 6.1 - Location of Receptors" in the report titled "Ardglen Quarry Extension - Environmental Assessment" dated 14 December 2006.	3	Dust Monitoring		Dust deposition gauge located at the point identified as receptor 5 on the map titled" Figure 6.1 - Location of Receptors" in the report titled "Ardglen Quarry Extension - Environmental Assessment" dated 14 December 2006.	4	Dust Monitoring		Dust deposition gauge located at the point identified as receptor 7 on the map titled" Figure 6.1 - Location of Receptors" in the report titled "Ardglen Quarry Extension - Environmental Assessment" dated 14 December 2006.	Compliant	<p>AQMP section 3.3 includes monitoring requirements and AS/NZS standards applicable and Table 7 details the locations with reference to the EA. The monitoring of air emissions is undertaken as per these requirements as reported in the AEMRs. As per the AEMRs, the dust monitoring is undertaken at the locations as specified in the EA. The measured data is included in section B2 of the EPL Annual Returns for each reporting year.</p>	<p>Air quality management plan dated 7 Aug 2010, prepared by AECOM</p> <p>AEMRs 2014 - 2017</p> <p>EPL Annual returns for: 2014 (dated 26 Feb 2015), 2015 (dated 26 Feb 2016) 2016 (dated 27 Feb 2017) and 2017 (dated 15 Feb 2018)</p>	
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Limit Conditions																					
Pollution of Waters																					
L1.1	<p>Pollution of waters</p> <p>Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.</p>	Compliant	<p>There is no discharge of waters recorded or reported. During site inspection, no water discharge was observed. Seepage of water in drains internal to the site was observed however there is no evidence that this reaches any natural water bodies.</p>	<p>Site investigations</p> <p>AEMRs 2014-2017</p> <p>EPL Annual returns for: 2014 (dated 26 Feb 2015), 2015 (dated 26 Feb 2016) 2016 (dated 27 Feb 2017) and 2017 (dated 15 Feb 2018)</p>																	
Blast Limits																					
L7.1	<p>Blast Limits</p> <p>The overpressure level from blasting operations at the premises must not exceed 120dB (Lin Peak) at any time. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.</p>	Not Triggered	<p>There was no blasting on shte site during the audit period, as the site has been in care and maintenance phase from 2012 till 13 August 2018. Currently stockpiled material is being transported out of the site via trucks from 14 August 2018.</p>	<p>Site investigations</p> <p>AEMRs 2014-2017</p>																	
L7.2	<p>Blast Limits</p> <p>The overpressure level from blasting operations at the premises must not exceed 115dB (Lin Peak) for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.</p>	Not Triggered	<p>There was no blasting on shte site during the audit period, as the site has been in care and maintenance phase from 2012 till 13 August 2018. Currently stockpiled material is being transported out of the site via trucks from 14 August 2018.</p>	<p>Site investigations</p> <p>AEMRs 2014-2017</p>																	
L7.3	<p>Blast Limits</p> <p>Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 10mm/sec at any time. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.</p>	Not Triggered	<p>There was no blasting on shte site during the audit period, as the site has been in care and maintenance phase from 2012 till 13 August 2018. Currently stockpiled material is being transported out of the site via trucks from 14 August 2018.</p>	<p>Site investigations</p> <p>AEMRs 2014-2017</p>																	
L7.4	<p>Blast Limits</p> <p>Ground vibration peak particle velocity from the blasting operations at the premises must not exceed 5mm/sec for more than five per cent of the total number of blasts over each reporting period. Error margins associated with any monitoring equipment used to measure this are not to be taken into account in determining whether or not the limit has been exceeded.</p>	Not Triggered	<p>There was no blasting on shte site during the audit period, as the site has been in care and maintenance phase from 2012 till 13 August 2018. Currently stockpiled material is being transported out of the site via trucks from 14 August 2018.</p>	<p>Site investigations</p> <p>AEMRs 2014-2017</p>																	
L7.5 (a)	<p>Blast Limits</p> <p>To determine compliance with condition(s) L7.1, L7.2, L7.3 and L7.4: a) Airblast overpressure and ground vibration levels must be measured and electronically recorded at the locations identified as receptors 2 and 7 on the map entitled "Figure 6.1 - Location of Receptors" in the report entitled "Ardglen Quarry Extension - Environmental Impact Assessment" dated 14 December 2006 - for all blasts carried out in or on the premises; and</p>	Not Triggered	<p>There was no blasting on shte site during the audit period, as the site has been in care and maintenance phase from 2012 till 13 August 2018. Currently stockpiled material is being transported out of the site via trucks from 14 August 2018.</p>	<p>Site investigations</p> <p>AEMRs 2014-2017</p>																	

L7.5 (b)	Blast Limits To determine compliance with condition(s) L7.1, L7.2, L7.3 and L7.4: b) Instrumentation used to measure the airblast overpressure and ground vibration levels must meet the requirements of Australian Standard AS 2187.2-2006.	Not Triggered	There was no blasting on site during the audit period, as the site has been in care and maintenance phase from 2012 till 13 August 2018. Currently stockpiled material is being transported out of the site via trucks from 14 August 2018.	Site investigations AEMRs 2014-2017	
L7.6	Blast Limits Blasting operations at the premises may only take place between 10:00am-4:00pm Monday to Friday. (Where compelling safety reasons exist, the Authority may permit a blast to occur outside the abovementioned hours. Prior written (or facsimile) notification of any such blast must be made to the Authority).	Not Triggered	There was no blasting on site during the audit period, as the site has been in care and maintenance phase from 2012 till 13 August 2018. Currently stockpiled material is being transported out of the site via trucks from 14 August 2018.	Site investigations AEMRs 2014-2017	
Operating Conditions					
Activities must be carried out in a competent manner					
O1.1	Activities must be carried out in a competent manner Licensed activities must be carried out in a competent manner. This includes: a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.	Compliant	There was no blasting on site during the audit period, as the site has been in care and maintenance phase from 2012 till 13 August 2018. Currently stockpiled material is being transported out of the site via trucks from 14 August 2018.	Site investigations AEMRs 2014-2017	
Maintenance of plant and equipment					
O2.1	Maintenance of plant and equipment All plant and equipment installed at the premises or used in connection with the licensed activity: a) must be maintained in a proper and efficient condition; and b) must be operated in a proper and efficient manner.	Compliant	There had been no fixed operational equipment used on site since the site was placed into care and maintenance mode. From 14th August 2018, a front-end loader and an excavator were in use for moving stockpiled material. Refueling of the moving plant is undertaken by a sub-contractor (there was no on-site fuel storage at the time of the audit. Subcontractor trucks move the material from the site. Truck movements are monitored and recorded in register. Moving plant maintenance records were sighted by the Auditor. All plant in use at the time of the audit appeared to be well maintained.	AEMR for 2014, 2015, 2016, 2017 Site audit observations Site plant maintenance register. Ardglen Sales August 2018 truck register	
Dust					
O3.1	Dust The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	Compliant	AOMP section 5 details pollution control measures including dust management. During 2012-13 August 2018, the site had been under care and maintenance phase with no site activities reported. From 14 August 2018, transportaiton of stockpiled material has been initiated under a subcontractor agreement. A new wheelwash has been installed to control dust tracking by the trucks, which was observed to be operationa during the site audit visit. Water from the wheelwash is used for site dust suppression via the sprinkler truck, sighted during the site audit visit.	AEMR for 2014, 2015, 2016, 2017 Air Quality Management Plan dated 7 Jul 2010 by AECOM Site audit observations	
O3.2	Dust Trucks entering and leaving the premises that are carrying loads must be covered at all times, except during loading and unloading.	Compliant	Driver Code of Conduct includes this requirement, which all drivers accessing the site have been inducted into, as per Consultation Records signed by drivers.	Code of Conduct document QU-PRO-0215-001 dated 02 Aug 2018 Daracon IMS IM-PLN-1400-001 Ardglen Quarry Traffic and Transport Management Plan Rev 04 dated 10 Aug 2018 Consultation Records for dates 15 Aug 18, 16 Aug 18 (eg.)	

Monitoring records												
M1.1	Monitoring records The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.	Compliant	All monitoring data for HVAS and depositional dust gauges is made available on the Daracon Quarries website, as sighted by the Auditors	Environmental monitoring data on Daracon Quarries website: http://www.daraconquarries.com.au/Environmental/Quarry-Monitoring-Data/								
M1.2	Monitoring records All records required to be kept by this licence must be: (a) in a legible form, or in a form that can readily be reduced to a legible form; (b) kept for at least 4 years after the monitoring or event to which they relate took place; and (c) produced in a legible form to any authorised officer of the EPA who asks to see them.	Compliant	All monitoring data is made available on the Daracon Quarries website, as sighted by the Auditors. Data is available from 2012. a) the documents are generated and maintained electronically b) data is available from 2012 c) data is available online for anyone to inspect	Environmental monitoring data on Daracon Quarries website: http://www.daraconquarries.com.au/Environmental/Quarry-Monitoring-Data/								
M1.3	Monitoring records The following records must be kept in respect of any samples required to be collected for the purposes of this licence: (a) the date(s) on which the sample was taken; (b) the time(s) at which the sample was collected; (c) the point at which the sample was taken; and (d) the name of the person who collected the sample.	Compliant	The records available online does not include any personel details however includes details of the automatic instrumentation including date, time and measurement point. Detailed noise measurement reports undertaken by Spectrum Acoustics includes details of the attended and unattended noise measurement.	Environmental monitoring data on Daracon Quarries website: http://www.daraconquarries.com.au/Environmental/Quarry-Monitoring-Data/								
Requirement to monitor concentration of pollutants discharged												
M2.1	Requirement to monitor concentration of pollutants discharged For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:	Not Compliant	The EPL requires only the monitoring of dust by Sampling Method AM-10 (Dust Deposition Gauges). Monitoring is required at three locations (Points 2, 3 and 4). The sampling method used meets the EPL requirements. The lack of monthly monitoring is a breach of this licence condition. The EPL Annual Returns for the years 2015 and 2016 reported that monitoring at Point 3 was not undertaken every month due to damage or theft of the guages. It is noted that the EPA has not issued an infringement notice for any of these incidents.	Auditor Observations AEMRs 2014-2017	Recommendation: Ensure that dust deposition gauges are checked regularly for loss or damage and that dust monitoring is undertaken every month.							
M2.2	Air Monitoring Requirements POINTS 2,3,4 <table><tr><th>Pollutant</th><th>Units of measure</th><th>Frequency</th><th>Sampling Method</th></tr><tr><td>Particulates - Deposited Matter</td><td>grams per square metre per month</td><td>Monthly</td><td>AM-19</td></tr></table>		Pollutant	Units of measure	Frequency	Sampling Method	Particulates - Deposited Matter	grams per square metre per month	Monthly	AM-19	The Auditor noted that on the NSW EPA POEO Licence database, this non-compliance is noted against a condition number M2.2 as per the copy of the EPL available online. This number does not exist in the EPL copy kept at the site and is part of M2.1.	EPL Annual returns for: 2014 (dated 26 Feb 2015), 2015 (dated 26 Feb 2016) 2016 (dated 27 Feb 2017) and 2017 (dated 15 Feb 2018)
Pollutant	Units of measure	Frequency	Sampling Method									
Particulates - Deposited Matter	grams per square metre per month	Monthly	AM-19									
Testing methods - concentration limits												
M3.1 (a)	Testing methods - concentration limits Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with: (a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or	Compliant	AQMP section 3.3 (Table 7) includes monitoring requirements and AS/NZS standards applicable. The monitoring of air emissions is undertaken as per these requirements as reported in the AEMRs. AQMP section 6 includes various testing methods and limits/guidelines in Table 11 (current) and Table 13 (proposed)	Air quality management plan dated 7 Aug 2010, prepared by AECOM AEMRs 2014 - 2017								
M3.1 (b)	Testing methods - concentration limits Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with: (b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or	Noted										
M3.1 (c)	Testing methods - concentration limits Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with: (c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place. Note: The Protection of the Environment Operations (Clean Air) Regulation 2002 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".	Noted										

Recording of pollution complaints					
M4.1	Recording of pollution complaints The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	Not Triggered	Luke Robinson reported that there have been no formal / written complaints received.	AEMRs 2014-2017, Site audit interview	
M4.2	Recording of pollution complaints The record must include details of the following: (a) the date and time of the complaint; (b) the method by which the complaint was made; (c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; (d) the nature of the complaint; (e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and (f) if no action was taken by the licensee, the reasons why no action was taken.	Not Triggered	Luke Robinson reported that there have been no formal / written complaints received.	AEMRs 2014-2017, Site audit interview	
M4.3	Recording of pollution complaints The record of a complaint must be kept for at least 4 years after the complaint was made.	Not Triggered	Luke Robinson reported that there have been no formal / written complaints received.	AEMRs 2014-2017, Site audit interview	
M4.4	Recording of pollution complaints The record must be produced to any authorised officer of the EPA who asks to see them.	Not Triggered	Luke Robinson reported that there have been no formal / written complaints received.	AEMRs 2014-2017, Site audit interview	
Telephone complaints line					
M5.1	Telephone complaints line The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	Compliant	Daracon has provided online feedback/complaints form as well as a telephone number for complaints on their website. The complaints number is also advertised at the site entrance.	http://www.daraconquarries.com.au/Contact-Us/ Site audit observations (photo)	
M5.2	Telephone complaints line The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	Compliant	Daracon has provided online feedback/complaints form as well as a telephone number for complaints on their website.	http://www.daraconquarries.com.au/Contact-Us/	
M5.3	Telephone complaints line Conditions M5.1 and M5.2 do not apply until 3 months after: (a) the date of the issue of this licence or (b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.	Noted	Daracon has provided online feedback/complaints form as well as a telephone number for complaints on their website.	http://www.daraconquarries.com.au/Contact-Us/	
Reporting Conditions					
Annual return documents					
R1.1	Annual return documents what documents must an Annual Return contain? The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: (a) a Statement of Compliance; and (b) a Monitoring and Complaints Summary. A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence. Before the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.	Compliant	The EPL annual returns have been sighted by the Auditors and they include the relevant details. The returns have been prepared using standard forms that include: (a) Statement of Compliance in section F and (b) Monitoring and Complaints Summary in section B The EPL annual returns have been supplied to NSW EPA, as per the NSW EPA POEO Licences database available online at NSW EPA website	EPL Annual returns for: 2014 (dated 26 Feb 2015), 2015 (dated 26 Feb 2016) 2016 (dated 27 Feb 2017) and 2017 (dated 15 Feb 2018) https://apps.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=1115&id=1115&option=licence&searchrange=licence&range=POEO%20licence&prp=n	
R1.2	Annual return documents Period covered by Annual Return An Annual Return must be prepared in respect of each reporting period, except as provided below. Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.	Compliant	The EPL annual returns have been sighted by the Auditors for each year of the audit period.	EPL Annual returns for: 2014 (dated 26 Feb 2015), 2015 (dated 26 Feb 2016) 2016 (dated 27 Feb 2017) and 2017 (dated 15 Feb 2018) https://apps.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=1115&id=1115&option=licence&searchrange=licence&range=POEO%20licence&prp=n	

R1.3	<p>Annual return documents</p> <p>Period covered by Annual Return</p> <p>Where this licence is transferred from the licensee to a new licensee:</p> <p>(a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and</p> <p>(b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.</p> <p>Note: An application to transfer a licence must be made in the approved form for this purpose.</p>	Noted			
R1.4	<p>Annual return documents</p> <p>Period covered by Annual Return</p> <p>Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:</p> <p>(a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or</p> <p>(b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.</p>	Noted			
R1.5	<p>Annual return documents</p> <p>Deadline for Annual Return</p> <p>The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').</p>	Compliant	<p>As per the Date Received column on the online NSW EPA database for POEO Licences, EPL 115 Annual Returns table, the EPL annual returns for this reporting period had been received within 60 days after the end of each reporting period:</p> <p>2014: 02 Mar 2015</p> <p>2015: 01 Mar 2016</p> <p>2016: 01 Mar 2017 and</p> <p>2017: 22 Feb 2018</p>	<p>EPL Annual returns for:</p> <p>2014 (dated 26 Feb 2015),</p> <p>2015 (dated 26 Feb 2016)</p> <p>2016 (dated 27 Feb 2017) and</p> <p>2017 (dated 15 Feb 2018)</p> <p>https://apps.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=1115&id=1115&option=licence&searchrange=licence&range=POEO%20licence&prp=n</p>	
R1.7	<p>Annual return documents</p> <p>Licensee must retain copy of Annual Return</p> <p>The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.</p>	Noted			

R1.8	Annual return documents Certifying of Statement of Compliance and signing of Monitoring and Complaints Summary Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by: (a) the licence holder; or (b) by a person approved in writing by the EPA to sign on behalf of the licence holder.	Compliant	As per the format adopted for EPL annual returns, section G requires signatures by authorised personnel. The annual returns as sighted by the Auditors include signatures by two directors of Daracon.	EPL Annual returns for: 2014 (dated 26 Feb 2015), 2015 (dated 26 Feb 2016) 2016 (dated 27 Feb 2017) and 2017 (dated 15 Feb 2018) https://apps.epa.nsw.gov.au/prpoeoapp/Detail.aspx?Instid=1115&id=1115&option=licence&searchrange=licence&range=POEO%20licence&prp=n&status=Issued	
R1.9	Annual return documents Certifying of Statement of Compliance and signing of Monitoring and Complaints Summary A person who has been given written approval to certify a certificate of compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review of this licence.	Noted			
Notification of environmental harm					
Note:	Notification of environmental harm Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.	Noted			
R2.1	Notification of environmental harm Notifications must be made by telephoning the Environment Line service on 131 555.	Noted			
R2.2	Notification of environmental harm The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.	Noted			
Written report					
R3.1	Written report Where an authorised officer of the EPA suspects on reasonable grounds that: (a) where this licence applies to premises, an event has occurred at the premises; or (b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.	Not Triggered	There had been no request from EPA to require a written report as per this condition.	AEMRs 2014-2017, Site audit interview	
R3.2	Written report The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.	Not Triggered	There had been no request from EPA to require a written report as per this condition.	AEMRs 2014-2017, Site audit interview	
R3.3	Written report The request may require a report which includes any or all of the following information: (a) the cause, time and duration of the event; (b) the type, volume and concentration of every pollutant discharged as a result of the event; (c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; (d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort; (e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants; (f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and (g) any other relevant matters.	Not Triggered	There had been no request from EPA to require a written report as per this condition.	AEMRs 2014-2017, Site audit interview	
R3.4	Written report The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.	Not Triggered	There had been no request from EPA to require a written report as per this condition.	AEMRs 2014-2017, Site audit interview	
General conditions					
Copy of licence kept at the premises or plant					
G1.1	Copy of licence kept at the premises or plant A copy of this licence must be kept at the premises to which the licence applies.	Compliant	A copy of the EPL licence is kept at the site office, as sighted by the Auditors.	Site audit observations	
G1.2	Copy of licence kept at the premises or plant The licence must be produced to any authorised officer of the EPA who asks to see it.	Noted			
G1.3	Copy of licence kept at the premises or plant The licence must be available for inspection by any employee or agent of the licensee working at the premises.	Compliant	A copy of the EPL licence is kept at the site office, as sighted by the Auditors.	Site audit observations	

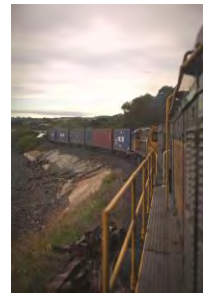
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Appendix 9 Road Safety Audit

Ann Hagerthy
Senior Compliance Officer
Planning Services
Suite 14, Level 1, 1 Civic Ave
PO Box 3145
Singleton NSW 2330

18th February 2019

To Ann,

RE: Buttai Gravel, Ardglan Quarry Road Safety Audit (RSA)

Further to correspondence from the Department of Planning and Environment (DPE) dated 9th August 2018 regarding the completion of a Road Safety Audit (RSA), please find attached a copy of the RSA completed for the traffic route to Ardglan Quarry.

Additionally and in accordance with the Project Approval 06_0624 Schedule 3, Condition 34 (b), we've consulted with the Roads and Maritime Service (RMS) and Liverpool Plains Shire Council (LPSC) regarding the actions arising from the Ardglan Quarry RSA. The agreed actions were only finalised with the LPSC representative on Friday 15th February 2019 and all agreed actions are included in the RSA report attached.

Finally and in accordance with the Project Approval 06_0624 Schedule 3, Condition 35, we plan to complete the agreed actions contained within the attached RSA report prior to the 18th February 2020. We do however plan to commence work on the agreed actions immediately and will keep you informed of the progress.

Should you have any further queries, please don't hesitate to contact the undersigned.

Yours sincerely



Luke Robinson
Systems Manager – Construction Materials
Buttai Gravel Pty Ltd (Daracon Quarries)
0417 481 785

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The intersection of Ardglan Street / New England Highway & Ardglan Quarry Route

Road Safety Audit – Existing Condition



**Crossroads Civil Design
Pty. Ltd**

October 2018

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Prepared for

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Printed: 30.10.2018**Author:** Steven Yarnold**Project Manager:** Steven Yarnold**Name of Client:** Daracon**Name of Project:** P2018056_Daracon_RSA_Ardglen_Quarry_Rd**Name of Document:** P2018056_Daracon_RSA_Ardglen_Quarry_Rd_Rev C.DOCX**Document Version:** Final

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Executive Summary

This report is for an existing condition road safety audit for extinction of Ardglen Quarry, the road safety audit is to cover the access to the quarry which includes;

- The intersection of New England highway and Main Road
- Main Road
- The intersections of Main road and Ardglen Road
- High Street
- Intersection of Main Road and High Street
- Intersection of High Street and St Stephen Street
- Warra Street

Positive aspects of the site have not been recorded. The purpose of this audit was to report on the defects and deficiencies of the project from a road user safety perspective only. The safety audit is not a design check, although some design issues may be raised during the audit process.

The audit is based on day and night site visits, Google Earth, Google Maps Street View, along with supporting documentation supplied by Daracon to the audit team.

The comments listed under the heading “Appendix B - Other Observations” are observations noted whilst carrying out the audit and do not necessarily relate to safety issues. This list is not comprehensive, it is simply a record of some of the additional observations made by the auditors and has been provided purely as additional information for the client.

The risk ratings provided in this audit are the assessment of the auditors. Ultimately, it is the client and / or road authority’s responsibility to determine the response to risk for each road safety deficiency identified.

The client response section with each audit finding has been provided for the use of the client. The purpose of the section with each auditing finding is to assist the client in formalising the process of attending to the specific safety issue raised, whether it be the “do nothing”, action or what action was taken to address the issue, and then the form can be signed off.

1. INTRODUCTION

1.1 Background

Crossroads Civil Design was commissioned by Daracon Group in August 2018 to undertake an existing condition road safety audit for the intersection of Ardglan Street / New England Highway & Ardglan Quarry Access Route.

This report presents the findings of the road safety audit.

1.2 Site Location

Ardglan Quarry is located approximately 5.5km northwest of Murrurundi along the New England highway. The Road Safety Audit covers the access to Ardglan quarry which includes the following;

- The intersection of New England highway and Main Road
- Main Street
- The intersections of Main road and Ardglan Road
- High Street
- Intersection of Main Road and High Street
- Intersection of High Street and St Stephen Street
- Warra Street

It should be noted that the road safety audit is comprised the following key features:

- The New England highway at this location has;
 - Posted speed limit of 100km/h.
 - Two travel lanes north and south bound.
- Main Street has a posted speed limit of 50km/h with a travel lane in each direction.
- High Street has a posted speed limit of 50km/h with a travel lane in each direction.
- High Street has a Rail overbridge 170m from the intersection of High Street and Main Street. The Rail overbridge comprises of a travel lane in each direction. The bridge does not have pedestrian access.
- St Stephen Street has no posted speed limit but has travel lanes in both directions.
- Warra Street has no posted speed limit but has travel lanes in both directions.

The scope of the audit undertaken included the following:

- All road users, including motorcyclists, cyclists and pedestrians; and
- The full width of the road corridor for each road within the limit of works.

The site location is shown in the Figure below.

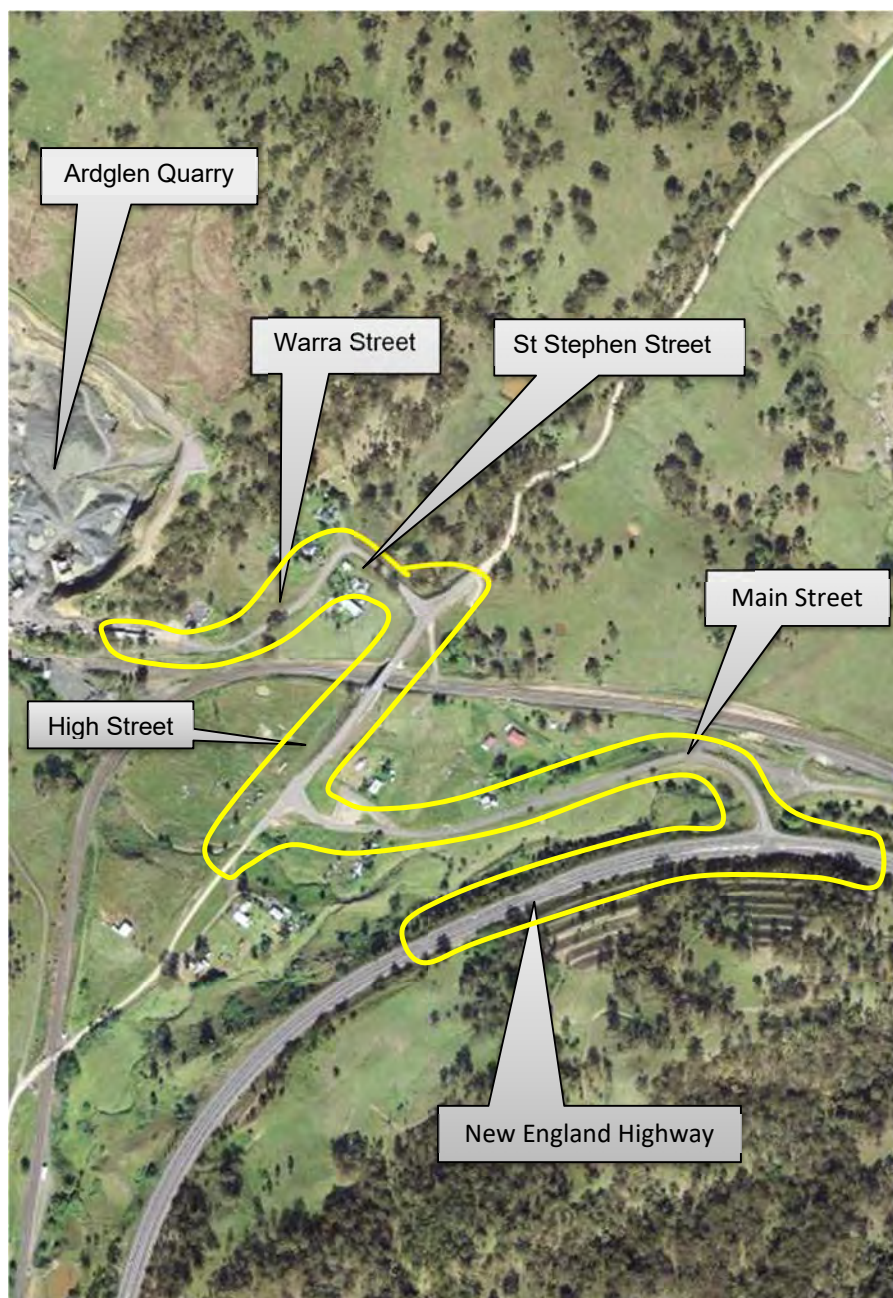


Figure 1 – Site location

1.3 Client

The Project Sponsor for this Road Safety Audit is:

Name: Luke Robinson
Position: System Manager – Construction Materials
Telephone: 0417481785
Email: Luke.Robinson@daracon.com.au
Address: 10 Kullara Close, Beresfield NSW 2322

2. The Audit Process

2.1 Scope of this report

This audit comprises an existing condition road safety audit. The audit was conducted to ascertain potential road safety issues for all road users. As an existing condition audit, the audit is limited to consideration of elements identifiable from an appreciation of the site conditions only. Issues considered during the audit were:

- Road alignment and typical cross-section;
- Auxiliary lanes;
- Intersections;
- Bus stops and parking;
- Local and property access;
- Lighting;
- Pedestrians and cyclists;
- Utilities;
- Physical objects;
- Bridges and culverts;
- Drainage and floodway;
- Pavement;
- Roadside safety barriers and clear zones;
- Line marking and signage;
- Landscaping;
- Provision for heavy vehicles;
- Railway level crossings; and
- Animals.

The objective of the audit was to review the existing road environment, with the intention of identifying road safety deficiencies and areas of risk that could lead to road crashes. The road safety audit team considered, for example:

- Have the permitted movements for all of the various road users been catered for in a safe way?
- Are the appropriate operational and control mechanisms in place to promote safety?
- Would the system operate to an acceptable level of safety in all situations, such as peak periods, poor weather and during darkness? and
- Are there opportunities to reduce the occurrence or severity of crashes?

Although the audit reviewed and identified safety issues, the responsibility for assessing and implementing corrective action(s) lies with the Project Sponsor. It is not the role of the auditor to provide recommendations or solutions to the identified safety issues; however, identification of potential safety concerns may assist the Project Sponsor in reducing the incidence and severity of crashes.

2.2 Audit Team

This road safety audit was undertaken by:

Thomas Brown	Level 3 Auditor	RSA-02-1013	
Steven yarnold	Level 3 Auditor	RSA-02-0212	(Lead Auditor)

2.3 Exclusions

Exclusions are noted as followed;

- Fog, Storm and / or rain fall linked to existing key elements during day and night time conditions;
- Peak Traffic flows and performance (AM / PM peaks); and
- Drainage performance linked to existing water flows. (i.e. performance of V-drains / swale drains, aquaplaning, ponding).

This may lead to the Audit team not fully appreciating the existing site conditions for all road users along and on the approaches to the proposed road works at this location.

2.4 Information Sources

The road safety audit was undertaken with reference to:

- a) Roads and Maritime Services, Guidelines for Road Safety Audit Practices, July 2011;
- b) Roads and Maritime Services, Technical direction 2003/RS03 Ver. 2 Aug 2005: Policy for road safety audits of construction and reconstruction projects;
- c) Roads and Maritime Services, Road Safety Audit Practices-L5 Road safety audit categories; and
- d) Austroads, Guide to Road Safety Part 6: Road Safety Audit.

The potential risk associated with the deficiencies identified has been based on a subjective assessment of the accident likelihood and crash consequence, as outlined in Section 3.

2.5 Previous audits

There were no previous road safety audits provided to the auditors.

2.6 Audit methodology

The audit team conducted site inspection on the following day and time:

- 2 September 2018, at approximately 4:15pm to 5:45pm (day time) and 5:45pm to 6:45pm (night time).

The audit team captured photos and video of the site. During the inspections, the weather was mostly sunny with some cloudy periods.

2.7 Commencement Meeting

A commencement meeting was held by teleconference at 10:00am on 29 August 2018 involving the audit team leader Steven Yarnold, Thomas Brown (CCD Auditor) and Luke Robinson (Daracon).

2.8 Closing Meeting

The review and close-out meeting was held at 10:00am on 29 October 2018. Attendees at the meeting included, Steven Yarnold (CCD Lead Auditor), Thomas Brown (CCD Auditor), Luke Robinson (Daracon) and John Cannon (Daracon)

Authority was granted by the Project Sponsor at the close out meeting, to issue the final road safety audit report.

3. Risk classification methodology

3.1 Risk assessment system

The rating of each identified deficiency was based on the crash likelihood and consequence, in accordance with the methodology and risk matrix described in the following subsections. The crash likelihood and consequence are based on the auditor's assessment and are necessarily subjective on this basis.

Risk levels based on the criteria set out in Austroads Guide to Road Safety, Part 6: Road Safety Audit, 2009, has been assigned to each deficiency identified. The rationale behind the assignment of risk has been reproduced in Table 1, Table 2 and Table 3 from the Austroads document.

3.2 Crash likelihood

The probable frequency of crash occurrence, resulting from each safety issue identified in the audit is assessed from the options presented in Table 1.

Table 1 Frequency

Frequency	Description
Frequent	Once or more per week (>50 crashes per year)
Probable	Once or more per year (a crash cluster)
Occasional	Once every five to ten years
Improbable	Less often than once every ten years

3.3 Crash consequence

The potential consequence of a crash resulting from the identified safety issue was rated from the choices presented in Table 2.

Reference to related speed for low, medium and high-speed crash types should be read in conjunction with Austroads Guide to Road Design – Part 3 (Geometric), Section 3.2.5 Vehicle speeds on roads. For road design purposes, the following definitions of high, intermediate (medium) and low vehicle speed limits will apply for both urban and rural areas:

- High speed – 90km/h or greater;
- Medium speed – 70km/h to 89km/h; and
- Low speed – 69km/h or less.

Table 2 Severity

Severity	Description	Examples
Catastrophic	Likely multiple deaths	High-speed, multi-vehicle crash on freeway. Car runs into a crowded bus stop. Bus and petrol tanker collide. Collapse of a bridge or tunnel.
Serious	Likely death or serious injury	High or medium-speed vehicle/vehicle collision. High or medium-speed collision with a fixed roadside object. Pedestrian or cyclist struck by a car.
Minor	Likely minor injury	Some low-speed vehicle collisions. Cyclist falls from bicycle at low speed. Left-turn rear-end crash in a slip lane.
Limited	Likely trivial injury or property damage only	Some low speed vehicle collisions. Pedestrian walks into object (no head injury). Car reverses into post.

3.4 Risk level

Deficiencies are then rated for their importance according to a three-tiered system, based on the following matrix, summarised in Table 3.

	Frequent	Probable	Occasional	Improbable
Catastrophic	Intolerable	Intolerable	Intolerable	High
Serious	Intolerable	Intolerable	High	Medium
Minor	Intolerable	High	Medium	Low
Limited	High	Medium	Low	Low

3.5 Suggested level of prioritisation based on risk rating

Possible suggested level of prioritisation for each road safety deficiency, are summarised in Table 4 below. As noted in the Executive Summary of this report, ultimately, it is the client and / or road authority's responsibility to determine the response and / or action to risk for each road safety deficiency identified.

Risk Rating	Level of Prioritisation
Intolerable	Must be corrected immediately
High	Should be corrected in the very near future, even if costs are high. Temporary mitigation measures should be considered until final correction action taken.
Medium	Should be corrected in the very near future, even if costs are moderate. A delay until the routine maintenance should be justified. Temporary mitigation measures should be considered until final correction action taken.
Low	Should be corrected at a suitable time, if cost is low.

It should be noted that from Table 4 above, the priority ratings are based on the Centre for Road Safety's Road Safety Audit Practices Information Sheet for Risk Assessment, where the project sponsor (also known as the project manager) assigns a priority rating for each identified risk in road safety. This priority rating shows the importance of putting the treatment into action.

In terms of recommendations for suggested treatments for each identified risk to road safety, generally the audit team does not provide these, as this is not the responsibility of the auditors. This is in accordance with Roads and Maritime practices and guidelines. Rather it is the responsibility of the client (or an appropriate representative of the client such as the project manager from the design team contracted for delivering/overseeing the project) to devise the appropriate corrective actions and implement them for the identified risks to road safety in the report.

It will be up to the discretion of the respective owning organisation/s to address their corresponding risks in the instance where local and state road authorities are responsible for an audit finding. The project manager's responsibility is to ensure all auditing findings are appropriately addressed.

For each client response addressing each audit finding, project managers must respond to close-out each finding. Where it is decided not to respond to an audit finding, justification should be given for the determination that no action will follow. Furthermore, it is not the responsibility of the auditors to approve the client response actions or the project manager's responses to the findings. The auditors are however able to provide input (not recommendations) to assist the project manager, and ultimately the project, in determining appropriate responses to reach a suitable outcome for possibly addressing in future design projects.

4. Audit Statement

We, the undersigned, have undertaken an existing condition road safety audit for the intersection of Ardglen Street / New England Highway & Ardglen Quarry Access Route. The audit was conducted in accordance with the Guidelines for Road Safety Audit Practice, (RMS, July 2011), for the purpose of identifying any features, that potentially impacts on road safety.

While every care and diligence has been taken to identify potential safety concerns, as detailed in this report, we do not warrant that every safety issue has been identified.



Thomas Brown
Auditor Level 3
Registered No: RSA-02-1013

Date: 30 October 2018





Steven Yarnold
Lead Auditor
Auditor Level 3
Registered No: RSA-02-0355



Date: 30 October 2018



5. Audit findings



The audit findings are presented in the following table. Where applicable, the findings are presented in order of road chainage and drawing number accordingly, and is not presented in order of relative importance to road safety.



Table 1 Risks to road safety



CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
1	Intersection of Main Street and New England Highway Northbound and Southbound Delineation	 	<p>The approach to the intersection of Main Street and New England Highway is missing delineation (i.e. RRPM's) and has faded line marking. This may increase the likelihood of readability issues for a driver. The likelihood of this risk may increase at night and / or adverse weather conditions. This may result in vehicle crashes and injury to occupants of a vehicle(s).</p>	Improbable	Serious	Medium
Client response – RMS Response – Will be addressed by works for Daracon						



CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
2	New England Highway Southbound Delineation	 	<p>The existing right turn bay into Main Street is missing right turn pavement arrows, which may lead to readability issues for approaching vehicles. The likelihood of this risk may increase at night and / or adverse weather conditions.</p> <p>This may confuse oncoming drivers for the purpose of lane and cause late lane change decisions. This may result in vehicle crashes and injury to occupants of a vehicle(s).</p>	Occasional	Serious	High
<p>Client response – RMS Response – RMS to install missing Right Turn Arrows. RMS to arrange to be included in this year’s AC linemarking program.</p>						


CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
3	New England Highway Southbound Traffic signs	 	<p>The advanced warning signage on approach to Main Street appears damaged, does not provide advanced warning to approaching vehicles, and has a reduced readability due to sightlines being obscured on the horizontal curve approach.</p> <p>This may lead to driver confusion and increase the likelihood of drivers slowing too early prior to the intersection and may result in vehicle crashes and serious injury to occupants of a vehicle(s).</p>	Occasional	Serious	High
Client response – RMS Response – RMS to repair signs from Routine Maintenance						


CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
4	Intersection of Main Street and New England Highway Northbound and Southbound Delineation and Road pavement	 	<p>At the intersection New England Highway and Main Street there is a combination of damaged / deformed pavement, loose gravel in the mouth of the intersection and faded delineation. The faded delineation may cause drivers readability issues.</p> <p>The loose gravel and damaged pavement may increase the likelihood of vehicles being unable to gain the required traction when entering Ardglan Road from New England Highway. The likelihood of this risk may increase during adverse weather conditions. This may result in vehicle crashes and serious injury to occupants of a vehicle(s).</p>	Occasional	Serious	High
Client response – RMS Response – Will be addressed by works for Daracon						



CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
5	Main Street South of the Intersection on the outside of the curve Northbound Road pavement	 	<p>At the Main Street / rail site compound access and in front of the existing w-beam safety barrier there is loose gravel on the outside of the horizontal curve.</p> <p>This may lead to reduced skid resistance for an errant vehicle.</p> <p>The likelihood of this risk may increase at night and / or adverse weather conditions. This may result in vehicle crashes and serious injury to occupants of a vehicle(s).</p>	Improbable	Serious	Medium
Client response – As agreed with LPSC representative, the loose gravel on the outside of the curve will be removed by appropriate means.						

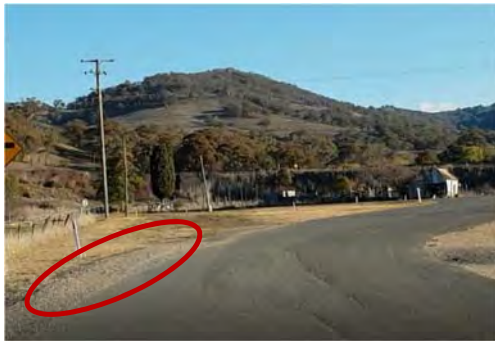
CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
6	Main Street – South of the intersection of New England Highway Northbound and Southbound Roadside hazards	 	<p>200m along Main Street from the intersection of New England highway, there is an existing culvert with steep embankments within the clear zone.</p> <p>The combination of narrow shoulder widths, steep batters, culvert headwalls within the clear zone, may limit a driver's manoeuvrability to avoid striking an object or have a reduced ability to gain control of their vehicle and strike objects within the clear zone. Narrow shoulders may also limit the available road width for wide vehicle loads and restrict vehicles in the opposing direction. This may increase the likelihood of drivers encroaching into the opposing travel lane and / or vehicles driving within the road shoulder / verge area to avoid a stationary object on the road. This may result in drivers striking the object or another object within the clear zone and lead to rapid deceleration of the vehicle. This may result in serious injury (not limited to) to occupants of a vehicle(s).</p>	Occasional	Serious	High
Client response – As agreed with LPSC representative, Daracon proposes to install a temporary barrier (type F concrete or similar) to highlight the presence of the existing culvert and minimise the likelihood of interaction with the roadside hazard. Subject to the ongoing operation of the quarry, Daracon may choose to install a permanent barrier (guardrail or similar) at some time in the future.						


CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
7	Main Street – Rail site compound access Northbound Road alignment and cross section And Delineation	 	<p>Approximately 150m from the intersection of New England Highway along Main Street there is an access track to a rail site compound.</p> <p>At the access there is a lack of delineation on the horizontal curve. This may give the oncoming driver the impression that the Main Street continues through rather than traveling to the right, especially at night.</p> <p>This may cause a driver to make a late change in direction.</p> <p>The combination of loose gravel on the outside of the curve and the late change in direction may result in crashes with other vehicles and result in injury to occupants of a vehicle(s).</p>	Improbable	Serious	Medium
Client response – As agreed with LPSC representative, Daracon proposes to install additional guide posts (or similar) to delineate the outside of the horizontal curve.						



CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
8	Main Street Northbound and Southbound Road pavement And Road alignment and cross section		<p>The road carriageway width does not appear suitable for vehicles to pass (i.e. trucks passing other trucks and / or cars).</p> <p>The travel lane widths may limit a driver's manoeuvrability and increase the likelihood of readability issues to oncoming vehicles. Narrow travel lane may also limit the available road width for wide vehicle loads and restrict vehicles in the opposing direction.</p> <p>This may result in drivers striking oncoming objects or another object within the clear zone and lead to rapid deceleration of the vehicle. This may result in injury to occupants of a vehicle(s).</p>	Improbable	Minor	Low
Client response –		<p>Please also refer to LPSC point #2 below on Page 33A. Although the AADT would be less than 300 vehicles per day including the quarry operating at 500,000T by road per year as proposed (approximately 60 outbound and 60 inbound truck movements), it was agreed with LPSC to install additional line marking only at the curves either end of Main St. The straight section of Main St will remain with no line marking. All existing line marking will also be renewed if not completed recently by LPSC. An additional control that has been implemented is the self-imposed mandatory speed limit of 40kph from the New England Highway to the Quarry entrance for all trucks.</p>				


CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
9	Main Street Intersection with Ardglen Road Northbound and Southbound Traffic signs		<p>On Main Street approach to Ardglen Road, the existing speed zone repeater signage appears faded. This may increase the likelihood of readability issues for drivers, and increase the likelihood of a driver failing to travel to the sign posted speed limit.</p> <p>The likelihood of this risk may increase at night and / or adverse weather conditions. This may lead to vehicle crashes and injury to occupants of a vehicle(s).</p>	Improbable	Minor	Low
Client response – As agreed with LPSC representative, Daracon proposes to install new speed limit signage as the existing sign is faded.						



CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
10	Main Street Approaching the intersection with Ardglen Road Northbound and Southbound Roadside hazards	 	<p>On Main Road approach to Ardglen Road, there is an existing power pole and fence posts within the clear zone.</p> <p>Errant vehicles at these locations may have a reduced ability to gain control of their vehicle and strike the power pole or fence post within the clear zone which may lead to rapid deceleration of the vehicle. This may be due to the combination of horizontal and / or vertical alignment of the road and / or drivers swerving to avoid striking an animal (i.e. animal carcass). The likelihood of this risk may increase at night and / or adverse weather conditions. This may result in vehicle crashes and injury to occupants of a vehicle(s), not limited to.</p>	Improbable	Serious	Medium
Client response – As agreed with LPSC representative, Daracon proposes to install delineation in the form of additional guideposts adjacent to the roadway to highlight the presence of the existing power pole.						

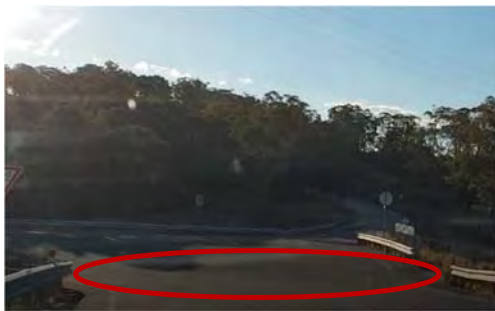

CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
11	Main Street Approaching the intersection with Ardglen Road Northbound and Southbound Pavement		<p>Approximately 65m along Main Road from the intersection of Main Road and High Road, there is loose gravel on the outside of the horizontal curve.</p> <p>This may lead to reduced skid resistance for an errant vehicle.</p> <p>The likelihood of this risk may increase at night and / or adverse weather conditions. This may result in vehicle crashes and serious injury to occupants of a vehicle(s).</p>	Improbable	Serious	Medium
Client response – As agreed with LPSC representative, the loose gravel on the outside of the curve will be removed by appropriate means.						


CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
12	Main Street Intersection with High Street Delineation		<p>At the intersection of Main Street and High Street, the existing delineation is faded.</p> <p>This may lead to readability issues for a driver and increase the likelihood of a vehicle failing to give way at the intersection. The likelihood of this risk may increase at night and / or adverse weather conditions. This may lead to vehicle crashes and injury to occupants of a vehicle(s).</p>	Improbable	Serious	Medium
Client response – As agreed with LPSC representative, Daracon proposes to refresh the existing linemarking.						



CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
13	Main Street Intersection with High Street Westbound Traffic signs	 	<p>Approaching the intersection of Main Street and High Street from the south eastern side traveling west there is a missing Stop sign.</p> <p>This may increase the likelihood of readability issues for drivers and lead to drivers failing to stop to oncoming vehicles. This may increase the likelihood of vehicle crashes, especially during adverse weather conditions. This could lead to crashes with other vehicles, thus may result in serious injury to occupants of a vehicle(s).</p>	Improbable	Minor	Low
Client response – As agreed with LPSC representative, Daracon proposes to reinstate the existing stop sign.						

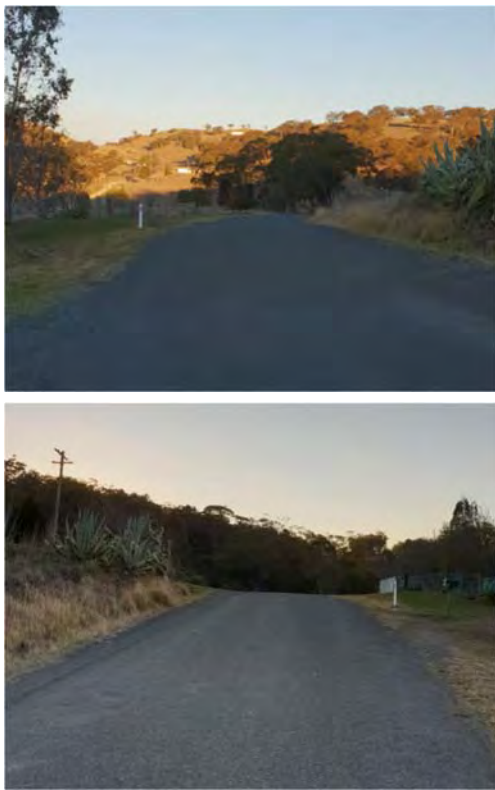
CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
14	High Street Approach to St Stephen Street intersection Westbound Traffic signs		<p>On the south eastern side of the intersection of High Street and St Stephen Street, the advanced warning of T-intersection signage is loose, which has caused the sign to point in the wrong direction.</p> <p>This may increase the likelihood of readability issues for drivers and lead to drivers failing to negotiate the intersection. This may increase the likelihood of vehicle crashes, especially during adverse weather conditions. This could lead to crashes with other vehicles, thus may result in serious injury to occupants of a vehicle(s).</p>	Improbable	Serious	Medium
Client response – As agreed with LPSC representative, Daracon proposes to reinstate the existing T intersection sign.						



CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
15	High street Rail overpass bridge Eastbound and Westbound Road alignment and cross section	 	<p>Traveling west along High Street towards the rail overpass bridge, the travel lanes appear to narrow and there is a kink in the alignment of the road.</p> <p>The narrow travel lane widths may limit a driver's manoeuvrability and increase the likelihood of readability issues to oncoming vehicles. Narrow travel lane may also limit the available road width for wide vehicle loads and restrict vehicles in the opposing direction.</p> <p>This may result in drivers striking oncoming vehicles or safety barriers and lead to rapid deceleration of the vehicle. This may result in serious injury (not limited to) to occupants of a vehicle(s).</p>	Occasional	Serious	High
Client response –		<p>As agreed with LPSC representative, all existing line marking will be renewed if not completed recently by LPSC. An additional control that has been implemented is the self-imposed mandatory speed limit of 40kph from the New England Highway to the Quarry entrance for all trucks. Appropriate delineation already exists along the guardrail.</p>				


CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
16	High Street Approach to St Stephen Street intersection Eastbound and Westbound Delineation	 	<p>At the intersection of High Street and St Stephen Street, the existing delineated is faded.</p> <p>This may lead to readability issues for a driver and increase the likelihood of a vehicle failing to give way / stop at the intersection. The likelihood of this risk may increase at night and / or adverse weather conditions. This may lead to vehicle crashes and injury to occupants of a vehicle(s).</p>	Improbable	Serious	Medium
Client response – As agreed with LPSC representative, all existing line marking will be renewed by Daracon if not completed recently by LPSC.						


CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
17	St Stephen Street Northbound and Southbound Road alignment and cross section		<p>The road carriageway width along St Stephens Street does not appear suitable for vehicles to pass (i.e. trucks passing other trucks and / or cars).</p> <p>The travel lane widths may limit a driver's manoeuvrability and increase the likelihood of readability issues to oncoming vehicles. Narrow travel lane may also limit the available road width for wide vehicle loads and restrict vehicles in the opposing direction.</p> <p>This may result in drivers striking oncoming vehicles or objects within the clear zone and lead to rapid deceleration of the vehicle. This may result in serious injury (not limited to) to occupants of a vehicle(s).</p>	Occasional	Serious	High
Client response –		<p>As agreed with LPSC representative, Daracon will consult with the three residents along Warra and St Stephen Streets to discuss the potential installation of convex mirrors at strategic locations and will install as agreed.</p> <p>Daracon has also implemented a self-imposed mandatory speed limit of 40kph from the New England Highway to the Quarry entrance as well as a mandatory "call up" protocol for St Stephens and Warra St's as detailed in the TTMP.</p>				


CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
18	St Stephen Street Intersection with Warra Street Northbound and Southbound Road alignment and cross section And Road Pavement	 	<p>Traveling along St Stephens Street towards Warra Street there is deteriorated / damaged pavement with excessive road cross fall, narrow lane widths and sight distance restrictions.</p> <p>The combination of all the above elements may limit a driver's manoeuvrability and increase the likelihood of readability issues to oncoming vehicles. Narrow travel lane may also limit the available road width for wide vehicle loads and restrict vehicles in the opposing direction.</p> <p>This may result in drivers striking oncoming objects or another object within the clear zone and lead to rapid deceleration of the vehicle. This may result in serious injury (not limited to) to occupants of a vehicle(s).</p>	Occasional	Minor	Medium
Client response – As agreed with LPSC representative, refer to RSA CAR #17 above.						

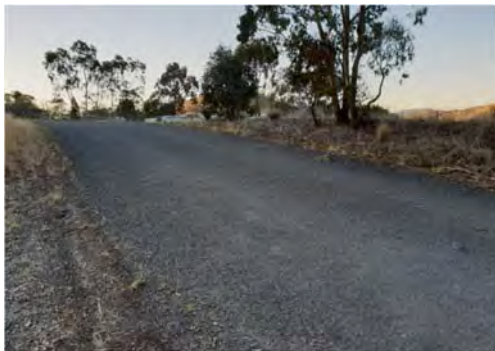
CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
19	Warra Street Northbound and Southbound Road alignment and cross section		<p>The road carriageway width along Warra Street does not appear suitable for vehicles to pass (i.e. trucks passing other trucks and / or cars).</p> <p>The travel lane widths may limit a driver's manoeuvrability and increase the likelihood of readability issues to oncoming vehicles. Narrow travel lane may also limit the available road width for wide vehicle loads and restrict vehicles in the opposing direction.</p> <p>This may result in drivers striking oncoming vehicles or objects within the clear zone and lead to rapid deceleration of the vehicle. This may result in serious injury (not limited to) to occupants of a vehicle(s).</p>	Occasional	Minor	Medium
Client response – As agreed with LPSC representative, refer to RSA CAR #17 above.						

CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
20	Warra Street Near the quarry entrance Southbound Pavement And Road alignment and cross section	 	<p>Near the entrance to the quarry and part of Warra Road the existing pavement is deteriorated and shoulder show evidence of erosion.</p> <p>This may lead to soft shoulders and may be unstable for heavy vehicle to use if divers need to move their vehicle to avoid oncoming traffic.</p> <p>This may result in injury to occupants of a vehicle(s), not limited to.</p>	Occasional	Serious	High
Client response – As agreed with LPSC representative, Daracon proposes to investigate and repair the shoulder as described in the RSA.						

CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
21	Warra Street Northbound and Southbound Roadside hazards		<p>Along Warra Street the auditors observed trees within clear zone as well as narrow carriageway.</p> <p>Errant vehicles at these locations may have a reduced ability to gain control of their vehicle and strike the trees within the clear zone which may lead to rapid deceleration of the vehicle. This may be due to the narrow carriageway width of the road and / or drivers swerving to avoid striking oncoming vehicles. The likelihood of this risk may increase at night and / or adverse weather conditions. This may result in vehicle crashes and injury to occupants of a vehicle(s), not limited to.</p>	Occasional	Minor	Medium
Client response –		<p>As agreed with LPSC representative, Daracon proposes to install delineation in the form of additional guideposts adjacent to the roadway to highlight the presence of the trees. Daracon has implemented a self-imposed mandatory speed limit of 40kph from the New England Highway to the Quarry entrance as well as a mandatory “call up” protocol for St Stephens and Warra St’s as detailed in the TTMP.</p>				

CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
22	Warra Street Northbound and Southbound Roadside hazards		<p>Approximately 50m from the entrance of the quarry there is an existing culvert headwall with drop-off within the clear zone.</p> <p>Errant vehicles at these locations may have a reduced ability to gain control of their vehicle impact with the existing headwall and / or surrounding objects within the clear zone. This may be due to the narrow carriageway width of the road and / or drivers swerving to avoid striking oncoming vehicles. The likelihood of this risk may increase at night and / or adverse weather conditions. This may result in vehicle crashes and serious injury to occupants of a vehicle(s).</p>	Improbable	Serious	Medium
Client response –		<p>As agreed with LPSC representative, Daracon proposes to install a temporary barrier (type F concrete or similar) to highlight the presence of the existing culvert and minimise the likelihood of interaction with the roadside hazard. Additionally, LPSC have committed to investigating the option of extending the existing storm water pipe to permit widening of the formation thus eliminating the roadside hazard.</p>				

CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
23	Warra Street Quarry entrance Northbound and Southbound Road alignment and cross section		<p>At the site entry of the quarry, the entry appears narrow, lack of carriageway width for drivers to turn around as well as lack of restriction signage / no through road.</p> <p>This may lead to driver frustration and confusion which may contribute to driver error. The likelihood of this risk may increase at night and / or adverse weather conditions. This may result in vehicle crashes and serious injury to occupants of a vehicle(s).</p>	Improbable	Minor	Medium
Client response –		<p>As agreed with LPSC representative, Daracon has implemented a self-imposed mandatory speed limit of 40kph from the New England Highway to the Quarry entrance as well as a mandatory “call up” protocol for St Stephens and Warra St’s as detailed in the TTMP.</p>				

CAR No	Location Category	Photographs/ Plans Drawing No	Description of Risk to Road Safety	Risk Assessment		
				Likeli-hood	Consequence	Risk Level
24	Warra Street Northbound and Southbound Delineation		<p>It was noted that along Warra Street there is a lack of delineation. This may increase the likelihood of readability issues for drivers.</p> <p>The likelihood of this risk may increase at night and / or adverse weather conditions. This may result in vehicle crashes and injury to occupants of a vehicle(s).</p>	Occasional	Minor	Medium
Client response – As agreed with LPSC representative, Daracon proposes to install delineation in the form of additional guideposts adjacent to the roadway.						

Additional items raised by LPSC:

LPSC query #1 - The two 'T' intersections either side of the rail overpass bridge are not your normal 'T' intersections in that the approach roads to the top of the 'T' have right away, whereas the thru road normally has right of way. Whilst 'Give Way' and 'Stop Signs' along with line marking (that needs maintaining) exists, I think advance warning 'Give Way Sign Ahead' and 'Stop Sign Ahead' signs (W3-1B and W3-2B) should be considered to forewarn road users along High Street and Swinging Ridges Road as the thru road(s).

Daracon response - Daracon agree to install additional advance warning 'Give Way Sign Ahead' and 'Stop Sign Ahead' signs (W3-1B and W3-2B) to forewarn road users along High Street and Swinging Ridges Road as the thru road(s).

LPSC query #2 - There is no centreline delineation along the Ardglen Road (it is being called Main Street in the RSA). High Street has centreline marking (albeit it is very faded and needs redoing).

Given there are 2 curves along the Ardglen Road, the RSA should identify the lack of centreline marking along this road in greater detail. CAR No: 7 touches on it.

Daracon response - Although the AADT would be less than 300 vehicles per day including the quarry operating at 500,000T by road per year as proposed (approximately 60 outbound and 60 inbound truck movements), it was agreed with LPSC to install additional line marking only at the curves either end of Main St. The straight section of Main St will remain with no line marking. All existing line marking will also be renewed if not completed recently by LPSC. An additional control that has been implemented is the self-imposed mandatory speed limit of 40kph from the New England Highway to the Quarry entrance for all trucks.

LPSC query #3 - The advance 'T' junction warning sign on Ardglen Road on approach to High Street does not depict the road alignment on approach to the intersection. The approach to the intersection has a horizontal curve between the Advanced intersection Warning Sign and the intersection. The sign should be changed to a Curved Intersection (W2-14B) sign.

Daracon response - Daracon agrees to change the advance 'T' junction warning sign on Ardglen Road on approach to High Street to a Curved Intersection (W2-14B) sign.

LPSC query #4 - There is a deficiency in Safe Intersection Sight Distance (SISD) at and for the second house along Warra Street on the right as you head towards the quarry. AUSTROADS stipulates the SISD for 50km/h is 90 metres. There would only be 40m at this location. The RSA does not identify this deficiency.

Daracon response - Refer to RSA CAR #17 above.

Appendix A

Road Safety Audit Categories

Road safety audit practices



Transport
for NSW

INFORMATION SHEET:

NO: L5

Road safety audit categories

Categories have been set up to assist in the management of corrective actions, and monitoring of trends in identified risks in road safety.

Category	Examples
Access impacts	Property, developments, traffic generators, rest areas, emergency vehicles, service vehicles, maintenance, vehicle breakdowns, etc.
Auxiliary lanes	Overtaking lanes, passing lanes, tapers, merges, etc.
Bridge structures	Road bridge, pedestrian bridge, rail bridge, etc.
Bus infrastructure	Bus lanes, bus facilities, bus stops, etc.
Cyclist infrastructure	Cycleways, on-road facilities, off-road cycle facilities, cycle routes, etc.
Delineation	Guide posts, pavement markings, reflectors, warning signs, etc.
Drainage	Ponding, aquaplaning, etc.
Heavy vehicle infrastructure	Inspection bays, facilities, provisions, routes, etc.
Intersections	Roundabouts, cross intersections, T-junctions, etc.
Landscaping	Shrubs, trees, etc.
Lighting	Street lighting, tunnel lighting, etc.
Miscellaneous	Matters not covered by categories listed.
Network effects	Road function, traffic composition, traffic volume, traffic characteristics, route choice, impact of continuity with the existing network, etc.
Special road users infrastructure	Trains, ferries, trams, equestrian, stock, etc.

Category	Examples
Pedestrian infrastructure	Pathways, pedestrian crossings, pedestrian fencing, etc.
Road alignment and cross section	Sight distance, visibility, readability by drivers, glare, widths, shoulders, crossfalls, batter slopes, drains, etc.
Road pavement	Pavement defects, skid resistance, ponding, loose stones/material, etc.
Road users	Behaviour, practices, travel patterns, interaction between different road users, etc.
Roadside activities	Roadside advertising, roadside designs, vending, etc.
Roadside hazards	Clear zones, utility poles, culverts, bridge structures, trees, etc.
Safety barriers	Concrete, guardrail, wire rope safety barriers, crash cushions, etc.
Speed zoning	Speed limits, speed zones, design speed, school zones, etc.
Traffic management and operations	Staging of works, temporary traffic control, detours, peak tidal flows, clearways, parking, etc.
Traffic management devices	Threshold treatments, road humps, kerb extensions, slow points, etc.
Traffic signals	Signal phasing, bus signals, bicycle signals, pedestrian signals, etc.
Traffic signs	Regulatory signs, warning signs, guide signs, etc.
Tunnel structures	Road tunnels, pedestrian tunnels, cycle tunnels, etc.

Appendix B

Other Observations

Below are general auditor team observations of potential road safety audit items that may be outside the scope of works, excluded from the audit findings (refer Section 2.3 Exclusions) or may require additional information linked to the observations below to determine if a road safety issue should be raised by the audit team.

These observations are not linked to the audit findings within the RSA report.

- Approximately 370m along Main Street from the intersection of New England Highway, the pavement surface appears deformed / subsided (near the abandoned house).
- There is a gap in the existing w-beam safety barrier for rail corridor access at the intersection of St Stephen Street and High Street. The auditors observed that the point of need for safety barrier may not protect an errant vehicle from the hazard at this location.
- As discussed during the closeout meeting, DPE had received a complaint (August 2018) from a nearby resident to Ardglen Quarry in relation to pedestrian safety on the rail overpass bridge, which stated: *The Department has received a complaint from a nearby resident to Ardglen Quarry in relation to pedestrian safety on the narrow bridge on Swinging Bridge Road, with no access for pedestrians while trucks are on the bridge. Can you please consider the pedestrian safety on Swinging Bridge Road during the Road Safety and Condition Audit (Sch 3, Cond 34) to be undertaken soon.*

During the site inspection the auditors did not observe any pedestrian and / or cyclist activity within the site location as noted in section 1.2 of this report. Factors which may contribute to the lack of pedestrian and / or cyclist activity include; the rural location of the site, the small number of surrounding rural properties and the location of the Ardglen Quarry. The auditors did not observe any existing surrounding infrastructure which may create an increase in the likelihood of pedestrian activity on the bridge. Likely scenarios for pedestrians activity on the rail overpass bridge may be for pedestrians viewing passing trains on the rail line, or nearby residents walking over the bridge, both of which was not observed by the auditors during the site inspection. This item may require further investigation and / or consideration for pedestrian safety and access on the rail overpass bridge.