



**INDEPENDENT ENVIRONMENTAL
AUDIT OF MUSWELLBROOK COAL
MINE**

Muswellbrook Coal Company

FINAL

January 2022



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Prepared by
Umwelt (Australia) Pty Limited
on behalf of
Muswellbrook Coal Company

Lead Auditor: Daniel Sullivan
Auditor: Joshua Wheatley
Report No. 21789/R01
Date: January 2022



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Document Status

Rev No.	Reviewer		Approved for Issue	
	Name	Date	Name	Date
Final	Daniel Sullivan	19 January 2022	Daniel Sullivan	19 January 2022

Executive Summary

Umwelt (Australia) Pty Limited (Umwelt) was commissioned by Muswellbrook Coal Company (MCC) to conduct an Independent Environmental Audit against Development Consent DA 205/2002 (as modified) for Muswellbrook Coal Mine (MCM). This audit was undertaken for the Muswellbrook Shire Council (MSC) for the period 28 November 2018 to 15 November 2021.

The audit also assessed compliance with the conditions of the developments Environment Protection Licence (EPL), key mining authorities and water licences.

This audit was conducted by Daniel Sullivan (Exemplar Global International Certified Lead Auditor 113202) and Joshua Wheatley from Umwelt. The field visit component was completed on 15 November 2021.

The audit consisted of a detailed desktop review of documentation, interviews with key MCC staff and a field inspection of the mining and rehabilitation areas. The audit was conducted generally consistent with the 'AS/NZS ISO 19011:2011 Australian/New Zealand Standard: Guidelines for quality and/or environmental management systems auditing and the 'Independent Audit Guideline Post-approval requirements for State significant developments (NSW Government, 2015)'.

Key actions and recommendations from the previous independent environmental audit completed in 2018 have been reviewed and responded to, as described in **Section 3.0**.

This audit has concluded that the on the ground environmental management practices being applied at the MCM are appropriate. The open cut pit areas assessed during the field inspection were observed to be well managed, with equipment operators and supervisory personnel demonstrating a good understanding of management actions required to minimise amenity impacts from mining activities.

Mining at MCM is in its final stages with approved mining planned to cease at the end of 2022. In this regard, rehabilitation and planning for closure were key focus areas of the audit. A review of rehabilitation during the field inspection completed for this audit found that some areas of rehabilitation completed would not likely reach defined objectives and targets within the timeframes outlined in the MOP. Availability of topsoil was identified to be a key area of concern for meeting rehabilitation and closure objectives with very limited topsoil resources remaining onsite and uncertainty regarding sources and volumes of alternate growth medium material that will be required. It is considered that sourcing materials to complete the remaining rehabilitation works onsite will present a significant challenge for MCM to meet rehabilitation targets and achieve completion criteria within the timeframes set in the MOP. Detailed planning and clear direction are required in this regard to ensure rehabilitation completion criteria can be met as outlined in the recommendations of this report.

A review of incidents that occurred at MCM since the previous audit indicated that they were classified as low risk and were related to equipment error and malfunction resulting in missed data capture, with all being documented and reported to regulatory agencies as required.

A number of community complaints were received during the audit period, relating to odour, dust, blasting and noise. The number of community complaints in 2021 is lower than previous years indicating that the environmental management of the key risks at the site has improved during this audit period.

Non-compliances identified during this audit are summarised in **Section 4.0** . These confirm that the majority of the non-compliances that occurred during the audit period were administrative or low risk in nature. One medium risk was also identified as a result of the Mine Closure Plan not being approved as planned mine closure is in less than 12 months. A series of recommendations arising from a review of environmental management documentation, the audit site inspections and identified non-compliances is provided in see **Section 7.0**.

At the time of the audit, MCC were aware of most of the identified non-compliances against development consent conditions, licences and approvals and were working to address a number of the issues identified in this report.

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1.0 Introduction

Muswellbrook Coal Mine (MCM) is an open cut coal mine operated by Muswellbrook Coal Company Limited (MCC), 3 kilometres (km) north-east of the township of Muswellbrook, in the Muswellbrook local government area (LGA) in New South Wales (NSW). MCC is wholly owned by Idemitsu Australia Resources (Idemitsu) Pty Ltd which is a subsidiary of Idemitsu Kosan Co.Ltd.

MCC commissioned Umwelt Australia Pty Limited (Umwelt) to conduct an Independent Environmental Audit (IEA) of the MCM. The IEA was conducted in accordance with the Development Consent for MCM (DA 205/2002) and with AS/NZS ISO 19011:2011 Australian/New Zealand Standard: Guidelines for quality and/or environmental management systems auditing. The NSW Government Independent Audit Guideline Post-approval requirements for State significant developments (NSW Audit Guidelines) (NSW Government, 2015) have also been used as a guide.

The IEA was led by Daniel Sullivan (Exemplar Global International Certified Lead Auditor 113202) and Joshua Wheatley from Umwelt. This IEA report has been certified by the lead auditor (see Appendix 1) as required by the NSW Audit Guidelines. As required by the Development Consent, the audit team was approved by Muswellbrook Shire Council (MSC) to undertake the audit (refer to Appendix 2 for a copy of the letter of approval from MSC dated 30 August 2021).

The IEA consisted of a detailed desktop review and onsite component including a site inspection and assessed the compliance status of MCM against the Development Consent and other relevant environmental approvals and licences, for operations occurring between 28 November 2018 and 15 November 2021 (the audit period). The on-site component of the IEA was conducted on 15 November 2021 (see Appendix 3 for the IEA plan and itinerary). Some information requested by the IEA team was not available on-site at the time of the IEA and was subsequently provided to the IEA team for review.

The weather conditions during the site component of this IEA were dry and windy (with a temperature of 16.1°C at 9 am and a temperature of 22.1°C at 3 pm), with moderate humidity. Winds during the audit tended generally west to northwest in the morning and in the afternoon with speeds of around 33 km/h. In the week preceding the IEA, conditions were wet, with 94.8 mm of rainfall recorded at the Scone BoM monitoring station (site: 061363) located approximately 33 km north of the MCM.

An opening and closing meeting for the IEA was held on site, with MCC Environment staff with senior management personnel in attendance at the opening meeting.

This report provides an outline of the IEA methodology and results and provides recommended actions for achieving full compliance with environmental approvals.

1.1 Audit Objectives

The key objectives identified for the 2021 IEA for MCM were as follows:

- to undertake an independent environmental audit as required by the conditions of the Development Consent
- to assess the environmental performance of MCM and the ability of the environmental management systems and controls to provide for sustainable management of the operations.

The IEA assessed the level of compliance and the environmental performance of MCM in accordance with the:

- the Development Consent (as modified 27 October 2016)
- the Environment Protection Licence (EPL) No. 656
- the Environmental Assessment (EAs), including the EA supporting documents, and subsequent Statement of Environmental Effects (SEEs) for the development
- Mining Authorities
- Water Access Licences
- any strategy, plan or program which has been prepared for the operations.

The scope of the IEA for MCM is detailed in **Section 1.2.1**.

1.2 Audit Scope

The IEA was undertaken in accordance with the Development Consent conditions and supporting approval documents as detailed in **Section 1.2**.

1.2.1 Development Consent

As part of the Development Consent conditions, MCM is required to be audited independently to determine compliance to the satisfaction of MSC. In order to assess the level of compliance with the terms of the approval, Condition 41 of the MCM Development Consent requires that an independent environmental audit be carried out. Specifically, the Development Consent condition states:

“Every three years from the date of this consent until completion of activity in the application area, or as otherwise agreed by Council, the Applicant must conduct an environmental audit of the mining and infrastructure areas of the development. This audit must:

- assess compliance with the requirements of this consent, the EPL, mining leases and water licences;*
- include consultation with Council, EPA, DRE and DPI – Water.*
- assess environmental performance of the development and whether it is complying with the management plans and the EMS;*
- review the effectiveness of the environmental management of the mine, including any mitigation works;*
- be carried out at the Applicant’s expense; and*
- be conducted by a duly qualified independent person or team whose appointment has been endorsed by Council.”*

1.2.1.1 Development Consent and Supporting Document Summary

MCC has a long history of mining in the Muswellbrook area, with underground operations commencing at MCM in 1907 and open cut operations commencing in 1944. Underground operations ceased in the late 1990s, however open cut mining continues. On 1 September 2003, Development Consent for DA 205/2002 was granted by MSC to extend the former MCC No.1 Open Cut. The No.1 Open Cut Extension commenced operations in March 2005 and has a capacity to produce up to 2 Million tonnes coal per annum (Mtpa).

This approval has subsequently been modified on several occasions with the latest modification granted in 2016 to allow mining in an area known as the “Continuation Project” and to extend the life of the mining operations to 2022. Rehabilitation activities will continue past this date.

The history of DA 205/2002 and modifications to it is provided in **Table 1.1**.

Table 1.1 Muswellbrook Coal Mine Consent History

Approval	Description	Consent Authority	Date Granted	Expiry/Renewal Date
DA 205/2002 (MSC)	Approval for Extension of MCC Open Cut 1	Muswellbrook Shire Council	1 Sep 2003	31 Dec 2015
DA 205/2002 (MSC) – Amendment to Condition 1.1	Power line relocation and additions to Workshop	Muswellbrook Shire Council	19 Dec 2005	31 Dec 2015
DA 205/2002 (MSC) Amendment to 1.1 and 11.3	Relocate office buildings, workshop and bath-house	Muswellbrook Shire Council	13 July 2009	31 Dec 2015
DA 205/2002 (MSC) Amendment to 11.1	Extension of mining into Area C	Muswellbrook Shire Council	23 Dec 2010	31 Dec 2015
DA 205/2002 (MSC) Amendment to 1.1(a), 31, 33, 39, 45 and 58.	Revision to Mining Infrastructure Building Requirements and Rehabilitation Plan Revision to permit the continuation of mining operations for an additional 5 years.	Muswellbrook Shire Council	29 Oct 2013	31 Dec 2020
DA 205/2002 (MSC) General revision of consent conditions	Modification to allow mining operations to mine additional areas and to extend the mine life to 2022.	Muswellbrook Shire Council	27 Oct 2016	31 Dec 2022 – end of mining operations. No end date of approval.

1.2.1.2 Supporting Approvals and Documents

The other approvals and statutory documents held by MCM which have been reviewed as part of this IEA include:

- EPL No. 656
- Mining Authorities
 - Coal Lease 713

- Mining Lease 1562
- Mining Lease 1304
- Water Licences
 - WAL39806
 - WAL41503
 - WAL41521
- any strategy, plan or program which has been prepared for the development.

1.3 Audit Criteria

The compliance status of each approval was assessed in accordance with the compliance assessment criteria detailed within the NSW Audit Guidelines as reproduced in **Table 1.2** and **Table 1.3** below.

Table 1.2 Independent Audit Guidelines Compliance Assessment Criteria

Assessment	Criteria
Compliant	Where the auditor has collected 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.
Not verified	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.
Non- Compliant	Where the auditor has collected sufficient veritable evidence to demonstrate that the intent of one or more specific elements of the regulatory approval have not been complied with within the scope of the audit.
Administrative non-compliance	A technical non-compliance with a regulatory approval that would not impact on performance and that is considered minor in nature (e.g. report submitted but not on the due date, failed minor or late monitoring session). This would not apply to performance-related aspects (e.g. exceedance of noise limit) or were a requirement had not been met at all (e.g. noise management plan not prepared and submitted for approval).
Not triggered	A regulatory approval requirement has an activation or timing trigger that had not been met at the time of the audit inspection, therefore a determination of compliance could not be made.
Observation	Observations are recorded where the audit identified issues of concern which do not strictly relate to the scope of the audit or assessment of compliance. Further observations are considered to be indicators of potential non-compliances or areas where performance may be improved.
Note	A statement or fact, were no assessment of compliance in required.

Table 1.3 Risk Level For Non-Compliances

Risk Level	Colour Code	Description
High		Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence
Medium		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-compliance with: <ul style="list-style-type: none"> potential for moderate environmental consequences, but is unlikely to occur 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)

1.4 Structure of this Document

This report contains the following sections:

- **Section 1.0** – Introduction. An overview of MCM and the purpose and scope of the audit
- **Section 2.0** – Audit Methodology. A detailed description of the audit process
- **Section 3.0** – Previous Independent Audit Recommendations and Status
- **Section 4.0** – Compliance Assessment. An overview of the findings of the audit, including detailed descriptions of any non-compliance identified
- **Section 5.0** – Environmental Management Plans
- **Section 6.0** – Environmental Performance
- **Section 7.0** – Recommendations and Conclusion
- **Appendix 1** – Independent Audit Submission Form
- **Appendix 2** – MSC Correspondence Approving the Audit Team
- **Appendix 3** – MCM Audit Plan and Itinerary
- **Appendix 4** – MCM Compliance Tables for DA 205/2002, Mining Authorities and EPL
- **Appendix 5** - MCM Photographic Record. Photographs of key site features referred to in this report.

2.0 Audit Methodology

The audit process involved the interview of personnel and relevant regulatory agencies, a review of documentation and samples of records provided by MCM and a site inspection of the MCM operations to determine the level of environmental performance and compliance of MCM.

2.1 Audit Team

The audit team was led by Daniel Sullivan, a qualified and highly experienced environmental auditor, who has undertaken a number of independent environmental audits for mining projects in NSW. Daniel was approved by MSC to act as the lead auditor for the project. Joshua Wheatley was approved by MSC to act as the auditor. A copy of the independent audit certification form as required by the NSW Audit Guidelines is included within **Appendix 1** with the MSC correspondence approving the audit team included within **Appendix 2**.

2.2 Agency/Stakeholder Consultation

During the preparation for this IEA, input was sought from regulatory agencies on 20 October 2021 to confirm any areas of compliance or environmental management at MCM that should be a particular focus. The following agencies were contacted and invited to provide input as part of the scoping phase of this Audit:

- Muswellbrook Shire Council
- Environment Protection Authority (EPA)
- NSW Resources Regulator (RR)
- Natural Resources Access Regulator (NRAR)
- Biodiversity Conservation Division (BCD)
- The Community Consultative Committee (CCC) Chairperson

An overview of the agency consultation is included in **Table 2.1**. Representatives from BCD, EPA and RR responded and provided feedback regarding items to be addressed in addition to the requirements of the Development Consent with their responses summarised in **Table 2.1** below. There was no feedback received from the other stakeholders contacted prior to the audit.

Table 2.1 Stakeholder Consultation

Stakeholder	Person Contacted	Response	Where Addressed
RR	Jenny Ehmsen (Principal Compliance Auditor)	<ul style="list-style-type: none"> • Review relevant mining leases and exploration licences as agreed with Resources Regulator • Undertake an assessment of compliance against the conditions of title related to environmental management • Verify that there is a current Mining Operations Plan (MOP) in place and it has been approved by the Regulator – review compliance against any conditions of approval of the MOP • Undertake a critical review of the MOP, including an assessment of its compatibility with the description of operations contained in the planning approval. In particular: <ul style="list-style-type: none"> ○ Review the rehabilitation strategy as outlined in the MOP to determine if it is consistent with the Project Approval in terms of progressive rehabilitation schedule; and proposed final land use(s) • Review the rehabilitation objectives and completion criteria as outlined in the MOP to determine if they have been developed in accordance with the proposed final land use(s) as outlined in the Project Approval • Review the development and implementation of any rehabilitation monitoring programs to assess performance against the nominated objectives and completion criteria – verified by reviewing monitoring reports and rehabilitation inspection records • Determine if a rehabilitation care and maintenance program has been developed and implemented based on the outcomes of monitoring program – verified by reviewing Annual Rehabilitation Programs or similar documentation • Confirm that mining operations are being conducted in accordance with the approved MOP (production, mining sequence etc.), including within the designated MOP approval boundary – to be verified by site plans and site inspection • Confirm that rehabilitation progress is consistent with the approved MOP as verified by site plans and a site inspection. This should include an evaluation against rehabilitation targets and whether the final landform is being developed in accordance with conceptual final landform in the Project Approval 	Sections 4.1, 4.4, 5.0, 6.3.7, 6.3.8, 6.3.9 and Appendix 4

Stakeholder	Person Contacted	Response	Where Addressed
		<ul style="list-style-type: none"> Based on a visual inspection, determine if there are any rehabilitation areas that appear to have failed or that have incurred an issue that may result in a delay in achieving the successful rehabilitation outcomes Review the progress of the remediation of erosion in the Void 3 area and the gully erosion into undisturbed remnant vegetation adjacent to the Open Cut No. 1 appear to have failed or that have incurred an issue that may result in a delay in achieving the successful rehabilitation outcomes Review the progress of the remediation of erosion in the Void 3 area and the gully erosion into undisturbed remnant vegetation adjacent to the Open Cut No. 1 	
BCD	Steven Crick Senior Team Leader – Planning	<ul style="list-style-type: none"> BCD recommends that the Independent Environmental Audit checks whether a positive covenant and restriction on the land use has been placed on title for the Biodiversity Offset Area. BCD recommends that the Independent Environmental Audit checks whether the rehabilitation objectives, in terms of areas, composition and structure and being met (as per Section 5.2 and Tables 19 to 22, inclusive, of the Mining Operations Plan). 	Section 6.3.8 and Appendix 4
EPA	Anthony Van Der Horst (Regulatory Operations Officer)	I refer you to the EPA’s public register http://www.epa.nsw.gov.au/prpoeo/index.htm where you can search for regulatory activity undertaken by the EPA for Environment Protection Licence 656 for Muswellbrook Coal Company Ltd.	Section 4.2 and Appendix 4

2.3 Site Interviews and Inspections

The opening meeting was held at the MCM main office commencing at 9.00 am on 15 November 2021. The list of participants is provided in **Table 2.2**.

Table 2.2 Opening Meeting Attendees

Person	Organisation	Title
Grant Clouten	MCC	General Manager
Rod Gallagher	MCC	Mining Engineering Manager
Brooke York	MCC	Environmental Superintendent
Sharn Crosdale	MCC	Environmental Officer
Daniel Sullivan	Umwelt	Lead Auditor
Joshua Wheatley	Umwelt	Auditor

The audit team was introduced, and the scope of their responsibilities was conveyed to the auditees. The purpose, depth and scope of the audit were outlined. The methods to be used by the team to conduct the audit were explained. It was stated that the audit team would be interviewing personnel, reviewing site management plans, examining records and conducting a site inspection in order to address specific compliance requirements. MCC personnel were asked to provide an overview of the operations and the approval history and some key issues relevant to the operations were discussed.

2.3.1 Audit Interviews

During the on-site component of the audit, interviews were conducted with MCC staff and contractors identified in **Table 2.3**.

Table 2.3 Personnel Interviewed During the Audit

Person	Organisation	Title
Brooke York	MCC	Environmental Superintendent
Sharn Crosdale	MCC	Environmental Officer
Phillip Hetherington	MCC	Maintenance Manager
Mark Dunn	MCC	Maintenance Supervisor

2.3.2 Data Collection and Verification

Where possible, documents and data collated during the audit process were reviewed whilst on-site. A number of documents were also provided to the audit team prior to the on-site component of the audit and documents that were not available during the on-site component of the audit were provided following the audit.

All information obtained during the audit process was verified by the audit team where possible. For example, statements made by site personnel were verified by viewing documentation and/or site inspections where possible. Where suitable verification could not be provided, this has been identified in the audit findings.

2.3.3 Site Inspection

A detailed site inspection of MCM was undertaken during the audit. The following locations were inspected:

- Mine infrastructure areas including the workshop, coal processing plant, product stockpiles, bioremediation area etc.
- Active mining areas including Open Cut 1
- Former Open Cut Mine Area 2
- Areas of historic rehabilitation including void 3
- Areas of recent rehabilitation and reshaping

2.3.4 Closing Meeting

The list of participants who attended the closing meeting is provided in **Table 2.4**.

Table 2.4 Closing Meeting Attendees

Person	Organisation	Title
Brooke York	MCC	Environmental Superintendent
Sharn Crosdale	MCC	Environmental Officer
Daniel Sullivan	Umwelt	Lead Auditor
Joshua Wheatley	Umwelt	Auditor

The objective of this meeting was to discuss outstanding matters, present preliminary findings and outline the process for finalising the audit report.

2.3.5 Independent Environmental Audit Reporting

Following completion of the site audit, the Development Consent, EPL, water licences and Mining Authorities compliance assessments were completed, and audit notes were reviewed in order to compile a list of outstanding matters to be noted in the audit report. This report was prepared to provide an overview of the status of compliance by reference to the relevant compliance documentation and any other observations of the auditors during the site inspections and interviews. This report has been prepared on an exception basis, highlighting the compliance issues identified along with any areas where action or improvement is required. This IEA has been prepared in accordance with the NSW Audit Guidelines with **Table 2.5** detailing where the key requirements have been addressed.

Table 2.5 Audit Guidelines Requirements

Section	Description	Where Addressed
2	Assess the operator's compliance with the requirements of regulatory approvals, including (as applicable): <ul style="list-style-type: none"> The Development Consent; The Environment Protection Licence; The Mining Lease; and Water licences and approvals. 	Section 4.0 and Appendix 4
2, 3	The scope of the audit and the audit team (including any technical specialists) to be determined by the lead regulator.	Section 1.2
3.3	The auditor team must be independent of the development being audited and audit findings must be based on verifiable evidence.	Section 2.1 and Appendix 1
4.1	The compliance status of each requirement or commitment should be assessed in accordance with the compliance assessment criteria and risk levels in the audit guidelines.	Section 4.0 and Appendix 4
4.2	Consultation with key regulatory agencies prior to commencement of the audit site inspection.	Section 2.2
5.1	The audit outcomes to be documented in a thorough, accessible and accurate audit report that is written in a neutral tone reflecting facts gathered by the audit team.	This Audit Report
5.1	The audit report should include the following sections: <ul style="list-style-type: none"> Introduction, providing a brief overview of the development, audit scope and objectives; Methodology, describing the audit team, methodology applied, document reviews, site inspections and interviews; Audit findings, including documentation of consultation, response to actions from the previous audit, assessment of compliance status against the conditions and commitments in relevant documents and a discussion of environmental incidents and performance; and Recommendations, identifying any opportunities for improvement identified in the audit.	This Audit Report
5.2	Audit reports submitted to the lead regulator must be certified by the lead auditor on an attached 'Independent Audit Submission Form'	Appendix 1

2.4 Limitations

The findings of the compliance audit are based upon visual observations of the site and its vicinity, interviews with site personnel and our interpretation of documentation provided by MCC.

Opinions presented herein apply to the site as it existed at the time of the audit and from information provided by site personnel and government agencies. Any changes to this information of which Umwelt is not aware and has not had the opportunity to evaluate therefore cannot be considered in this report.

The auditors have taken due care to consider all reasonably available information provided whilst undertaking this audit and have taken this information to represent a fair and reasonable characterisation of the environmental status of the site but recognise that any site assessment program is necessarily limited in scope and true site conditions may differ from those inferred from the available data.

3.0 Previous Independent Audit Recommendations and Status

The recommendations made in the 2018 MCC IEA (Umwelt, 2018) and the status of the recommendations as of 15 November 2021 are detailed in **Table 3.1**.

Table 3.1 Previous Audit Findings Update

Conditions	2018 – Audit Recommendations	2021 – MCM Status Update
Development Consent DA205/2002		
18	It is recommended that MCC continue to work with MSC in this regard and seek to have the Rehabilitation Strategy approved so that it can be implemented onsite as required.	MCC have explained that over the course of the audit period that the rehabilitation strategy has still not been approved. They are currently in discussion with MSC to seek approval to remove the rehabilitation strategy from their development consent (as it is considered that the site rehabilitation requirements are adequately covered in the approved Rehabilitation Plan) pending a development amendment
19	It is recommended that MCC continue to work with MSC in this regard and seek to have the Mine Closure Plan approved so that it can be implemented onsite as required.	MCC have explained that over the course of the audit period that the Mine Closure Plan has still not been approved. During the audit period MCC have continued discussions with MSC regarding the Closure Plan and seek to have it approved.
46	It is recommended that it should be confirmed in writing with MSC if the current process of reporting on complaints annually in the AEMR satisfies the intent of Condition 46(ii).	An email was sent to MSC on the 19 February 2019 to confirm the current process of reporting on complaints. MCC received an email on the 11 March 2019 confirming the current process was adequate.
WAL 39806		
2	An annual review and approval of the water budget is not undertaken annually. It is recommended that MCC review, update and seek approval from NRAR annually for the water budget.	MCC have consulted with Water NSW and now submit their water budget annually however as of 2 July 2020 the WAL conditions have been renewed and is no longer a requirement.
8	It is recommended that MCC confirm with NRAR if the AEMR is satisfactory to meet this condition moving forward.	An email was sent to NRAR on the 19 February 2019 to confirm if the information included in the Annual Environmental Management Report satisfies the reporting requirements. MCC did not receive a reply.
WAL 41503		
2	An annual review and approval of the water budget is not undertaken annually. It is recommended that MCC review, update and seek approval from NRAR annually for the water budget.	MCC have consulted with Water NSW and now submit their water budget annually however as of 2 July 2020 the WAL conditions have been renewed and is no longer a requirement.

Conditions	2018 – Audit Recommendations	2021 – MCM Status Update
Rehabilitation		
	It is recommended that upon the suspension of the OGM ban that MCC confirms with the EPA if it can be continued to be used on site and if the current OGM stockpiles need to be removed from site.	MCC were notified the ban would not be lifted. Disposal of stockpiled OGM onsite was buried in accordance with the Protection of the Environment Operations (Waste Amendment Regulation 2020 with last remaining stockpiles being buried on the 30 November 2020.
Spontaneous Combustion		
	MCC should continue to work through and implement the recommendations of the Spontaneous Combustion Management Review and Audit report as appropriate.	MCC continue to work in accordance with the Spontaneous Combustion Management Plan and implement recommendations of the Spontaneous Combustion Management Review and Audit report as appropriate throughout the audit period. Activities undertaken include: <ul style="list-style-type: none"> • Thermal Imaging to detect and manage heating events • Extended use of water carts • Changing the use of fly ash for sealing underground workings to sand and cement seals providing improved sealing capacity • All proposed sealing works in 2020 in the St Heliers seam was completed

4.0 Compliance Assessment

This section provides a discussion of the identified non-compliances and the status of the approvals assessed as part of the audit. **Appendix 4** provides a condition-by-condition checklist of DA 205/2002, relevant mining authorities and the EPL and provides the compliance status of each condition. The scope of approvals assessed as part of this audit is detailed in **Section 1.2**. The respective identification of non-compliances in the following sections include a ranking of the non-compliance risk levels in accordance with Table 2 of the NSW Audit Guidelines. Recommendations arising from the non-compliances are included **Section 7.0**.

4.1 Development Consent DA 205/2002

A summary of the identified non-compliances against DA 205/2002 are provided in **Table 4.1** with further details provided in the compliance tables in **Appendix 4**.

Table 4.1 Non-Compliances with Development Consent DA 205/2002

Condition	Non-Compliance	Risk Level
2	Non-compliances against some of the conditions in this Development Consent have been identified during the audit period. None of the non-compliances identified by this audit are considered to have resulted in material harm to the environment.	Low
13 (b)	There is no evidence of notification of appointment being sent through to MSB, OEH, DPI-Water and the CCC of Brooke York's temporary appointment to Environmental Officer.	Administrative
14 (c)	The revised Environmental Management Strategy was not sent to MSB following the revision of the plan.	Administrative
17	The Rehabilitation Plan is not consistent with the Rehabilitation Strategy (and as noted in Condition 18 the Rehabilitation Strategy has not been approved).	Low
18	The Rehabilitation Strategy has not been approved by MSC and as such it is not able to be verified if the draft strategy as developed is to the satisfaction of MSC.	Low
19	The Mine Closure Plan has not been approved by MSC and as such it is not able to be verified if the draft mine closure plan as developed is to the satisfaction of MSC. This is considered a medium risk as planned mine closure is in less than 12 months.	Medium
20	A positive caveat was registered outside the nominated timeframe as required by this condition. The vegetation offset area has also not been appropriately fenced as required in this condition and the conditions outlined in the Plan of Positive Covenant and Restriction on use of land within lot 62 DP752484.	Low
25	The current version of the Water Management Plan (V6) has not been approved and is overdue for further review	Low
42	MCC have not submitted the 2018 AEMR, 2019 AEMR and 2020 AEMR to all the relevant agencies and CCC as required by this condition.	Administrative

4.1.1 Environmental Assessments

As part of the compliance assessment against MCC, an assessment of the operations was undertaken against the EAs prepared as part of the original and modification approval processes for MCM. This assessment included a review of compliance against key commitments made in these documents with any non-compliances identified and presented in **Table 4.1**. As noted in **Section 1.2.1**, the Development Consent has been modified five times since it was originally granted in 2003. During the audit period there has been no modifications to the existing Development Consent.

This IEA noted that during the audit period MCC appear to have been undertaking operations generally in accordance with the requirements of the EA's except where noted in **Section 4.1** and **Appendix 4**.

4.2 Environment Protection Licence

During the audit period operations undertaken on the MCM have been conducted under EPL 656. The EPL as issued under the POEO Act outline MCC's responsibilities and the environmental performance standards it is required to meet, being:

- limit conditions
- operating conditions
- monitoring and recording conditions
- reporting conditions
- general conditions
- pollution studies and reduction programs.

MCC reports its performance against the above responsibilities and environmental performance status via the submission of its Annual Return. Generally, MCC has demonstrated compliance with the conditions of its EPL, however, some non-compliances have been identified.

The non-compliances identified with EPL 656 are detailed in **Table 4.2** below with further detail with regard to the reportable incidents that have occurred during the audit period provided in **Section 6.2.2**.

Table 4.2 Non-compliances with EPL 656

Condition	Non-Compliance	Risk Level
M2.2	<p>2018-2019. Missing data from air quality monitoring Points 7,8, 9, 10, 13, 15, 16. periodically throughout the reporting period due to equipment calibration or equipment malfunction. Broken equipment has since been replaced while a contractor is engaged to maintain equipment. A licence variation has been submitted to vary the type of equipment being used at Point 13 and to improve the data capture rates</p> <p>2019-2020 Missing data from monitoring points 7,8,9, 10, 13, 15, 16 periodically throughout the reporting period due to equipment calibration or equipment malfunction. Broken equipment has since been replaced while a contractor is engaged to maintain equipment.</p>	Low

Condition	Non-Compliance	Risk Level
M4.1	2018-2019 Data recovery for the monitoring period was 99.9% for the weather station. The wind sensor stopped working during September 2019 resulting in minimal wind data for September. The wind sensor was replaced 2019-2020 Data recovery for the monitoring period was 97.2% for the weather station. The batteries stopped holding their charge during May resulting in minimal weather data for May. The batteries were replaced.	Low
M7.1	2019-2020 The four blast monitors were operational throughout the reporting period, with 99.5% of data captured during the reporting period. Results were not collected at 99 Queen St on the 24th of February 2020 and at Queen St on 25th September 2020 due to the trigger monitor causing a reset of the blast monitor at the time of the blast and an automated retrieve all data process occurring at the time of the blast.	Low

As outlined in **Table 4.2** the identified non-compliances mainly related to the loss of data capture during the audit period. This was noted as an issue in the previous IEA.

4.3 Water Licences

MCC holds three water licences to extract groundwater under the *Water Management Act 2000* (WM Act). A summary of the identified non-compliances are provided in **Table 4.3** with further details provided in the compliance tables in **Appendix 4**.

Table 4.3 Non-compliances with Water Licences

Condition	Non-compliance	Risk Level
Water Access Licence 41521		
MW2338-00001	A logbook is currently not maintained for WAL 41521 (Open Cut Voids).	Low
MW0606-00001		
MW2337-00001		
MW2339-00001		

4.4 Mining Leases

In accordance with conditions of the relevant mining leases, a review of the 2017 – 2023 Mining Operations Plan and Rehabilitation Plan dated 27 September 2019 was undertaken. MCC developed the MOP for the period 4 January 2017 –December 2023 with the revised MOP approved by RR on 27 September 2019.

In accordance with the MOP, activities proposed over the MOP period include:

- Exploration drilling to confirm coal resources.
- Mining operations in Open Cut 1 would generally advance in a northerly direction from the existing mine workings with overburden emplacement in Open Cut 1 and Open Cut 2.
- Rehabilitation will continue to be progressively undertaken on areas that cease to be used for mining or mine-related activities as soon as reasonably practicable.
- A Decommissioning and Demolition Strategy will be developed for the site prior to closure.

Investigation for decommissioning and demolition as well as site preparation.

5.0 Environmental Management Plans

MCC has developed a number of EMPs and monitoring programs for the project in accordance with relevant requirements of the Development Consent. These documents address specific impacts associated with the project, such as noise, spontaneous combustion and reflect the requirements detailed in the Development Consent.

Additionally, the MOP for MCC was reviewed, being a plan required under the provisions of the Mining Authorities for the site. The MOP was prepared by MCC to guide the environmental management of the mining operations.

An overview of the compliance status of the EMPs and relevant environmental/operational plans (e.g. MOP) including an overview of the compliance of the management plans with the requirements of the Development Consent and implementation status of the plans is included in **Table 5.1** with further details provided in **Appendix 4** and recommendations as relevant included in **Section 7.0**.

Table 5.1 MCC Environmental Management Plans

Condition	Management Plan	Status of Plan
DA 205/2002		
14	Environmental Management Strategy (EMS)	The EMS has been revised for the development in consultation with OEH, EPA, DRE, DPI Water, CCC and to the satisfaction of MSC dated 29 2 October 2020. The revised Environmental Management Strategy was not sent to MSB following the revision of the plan.
17	Rehabilitation Plan (RP)	The combined MOP and RP has been revised during the audit period with approval from RR dated 27 September 2019.
18	Rehabilitation Strategy (RS)	The RS has not been approved. MCC are seeking a development consent modification which may change the RS requirements.
19	Mine Closure Plan (MCP)	The MCP has not been approved. MCC are currently in discussions with MSC regarding aspects to be included in the plan. This is considered to pose a medium risk as planned mine closure is in less than 12 months (end of 2022) and it is not able to be verified if the sites closure planning and rehabilitation is progressing towards the requirements and outcomes of the mine closure plan.
22	Visual Amenity, Lighting and Landscaping Plan (VALLP)	The VALLP was revised and approved by MSC on 02 October 2020.
23	Bushfire Management Plan (BMP)	The BMP was revised and approved by MSC on 30 November 2020.
25	Water Management Plan (WMP)	The WMP (V5) was approved in March 2018 (previous audit period). The current version (V6) which is being used by site is not approved. MCC explained that the WMP (V6) is currently under review with a further revision proposed. The WMP includes a site water balance in Section 3, a surface water management plan in Section 4, and a groundwater management plan in Section 5.
29	Air Quality Management Plan (AQMP)	The AQMP was revised and approved by MSC on the 1 December 2020.

Condition	Management Plan	Status of Plan
31	Spontaneous Combustion Management Plan (SCMP)	The SCMP was revised and approved by MSC on 30 November 2020.
33	Blast Management Plan (Blast MP)	A Blast MP has been revised during audit period. The plan was revised in consultation with the EPA and RR. The revised plan was approved by MSC on 26 May 2020.
39	Noise Management Plan (NMP)	A NMP has been revised during the audit period. The plan was revised in consultation with the EPA. The revised plan was approved by MSC on 30 November 2020.
Mining Authorities		
2 (ML1562) 3 (CCL713 and ML1304)	Mining Operations Plan (MOP)	A combined MOP and RP has been prepared for the development and was approved by DRE on 9 March 2017. The plan was revised during the audit period and approved by the RR on the 27 September 2019. The MOP covers the period from January 2017 to December 2023.

6.0 Environmental Performance

6.1 Environmental Management System

6.1.1 Management Commitment and Resourcing

Throughout the audit, MCC staff were co-operative and forthcoming with information and this allowed the auditors to gain an understanding of the culture of the organisation. MCC environmental staff attend daily operational meetings onsite and discuss any environmental works required to be undertaken at this meeting. During this meeting any environmental issues from the previous day are covered including why they occurred and if they have been closed out. The environmental staff also raises any meteorological conditions which may require operations to be altered.

This is supported by regular review of the data captured by the Metrological Monitoring Station (MMS) located to the west of Open Cut 1. The MMS is part of the Real Time Environmental Monitoring System (RTEMS) which captures wind speed and direction, temperature, rainfall, and humidity etc. The use of the RTEMS and its communication within the organisation appears to be integrated and well implemented within day to day management of the operations. The utilisation of the RTEMS to proactively manage noise, blasting and air quality at MCC is a good initiative with a number of examples sighted which demonstrated the system was understood and reasonably well implemented on site. For example, the use of a blasting checklist requires a check for appropriate weather conditions prior to blasting.

In regard to resourcing for environmental personnel, MCC have a full-time environmental superintendent who provides environmental support to the operations teams, undertakes monitoring and is responsible for reporting and any ad hoc environmental approvals. The environmental superintendent is supported by an environmental officer. During the audit, MCC senior management were involved in the audit and demonstrated an understanding of key environmental issues at the operation and also demonstrated a clear intent to manage the operation in accordance with the requirements of the Development Consent.

6.1.2 Training and Competence

Induction training records were reviewed during the audit to verify that MCC has a system in place for the training of its employees and contractors such that licensed activities are undertaken in a competent manner and that plant and equipment on-site is maintained and operated in a proper and efficient manner.

The induction process contains an environmental section educating staff and contractors of the environmental aspects of the operation, obligations under the Development Consent and how they are to be managed. The process also contains a competency assessment which contains questions relating to the environmental aspects covered during the induction to demonstrate competence. MCC utilises a system called Intuition to manage training and competency for all employees and contractors. During the audit, the INX system was reviewed and was found to provide an overview of all required, active and expired competencies for all staff and contractors.

Training programs and records reviewed during the audit indicated that MCC has developed and implemented an induction and training system for the training of employees and assessment of competence. In terms of environmental training, records reviewed during the audit identified that the site inductions include environmental management requirements for the site and appears to cover all relevant aspects as required.

6.1.3 Environmental Inspections and Compliance Management

The MCC environmental superintendent undertakes periodic site environmental inspections of the operations including operational and rehabilitated areas on site. Any actions from these inspections are discussed with relevant personnel with actions tracked through to completion.

MCC currently have a significant number of commitments and requirements from existing statutory approvals and management plans which are required to be complied with as part of ongoing operations and it is important that these are captured in relevant inspection procedures (including pre-disturbance inspections) in order to be able to demonstrate compliance.

6.1.4 Plant Maintenance and Inspection

On the basis of the audit observations and the records reviewed on-site, the auditors concluded that systems are in place for the maintenance of plant used on-site and that the key issue relates to the appropriate implementation of this system. During the site inspection, it was identified through an interview with Phillip Hetherington (Maintenance Superintendent) that MCC use 'SAP', a system which manages the maintenance records and scheduling for the MCC workshop. The system appeared to be well managed and implemented.

SAP operates on a 46 week schedule that generates work orders for when planned maintenance/services are required. Phillip Hetherington also explained that his system also considers predicted weather conditions as monitored in RTEMs for any upcoming servicing e.g. water carts are not scheduled for maintenance on day shift during hot and dry periods.

Poorly maintained plant and equipment has the potential to increase the risk of environmental impacts due to increased risk of fuel or oil spills and leaks, increased air emissions and increased noise. During the site inspection undertaken for the audit, the standard of equipment observed to be in operation was of appropriate standard and other equipment viewed to be in the workshop undergoing servicing and/or repairs (refer to **Photo 1** in **Appendix 5**).

6.1.5 Environmental Monitoring

A range of environmental monitoring programs have been developed within the respective site management plans and in accordance with the Development Consent. Monitoring undertaken in accordance with the environmental monitoring programs is displayed on MCC website with the monitoring data also included and the result summarised within the Annual Environmental Management Reports.

MCC have implemented a system on site which provides daily weather predictions, as well as predictions of potential for noise enhancement and dust enhancement. This system has been integrated into the management of the operations.

6.2 Reportable Environmental Incidents and Complaints

The reportable environmental incidents, Penalty Infringement Notices (PINs), regulatory orders and complaints received by MCC during the audit period are discussed in the following sections.

6.2.1 Penalty Infringement Notices/Orders

During the audit period MCC did not receive any PIN's or Official Cautions.

6.2.2 Reportable Incidents

There were no reportable incidents that occurred within the audit period.

6.2.3 Community Complaints

During the audit period community complaints were received by MCC regarding their operations with the complaints related to:

- Odour, Blast, Dust, Light, Haulage and Noise generation from mining activities at MCM.

The annual complaints as detailed within the complaints register and the Annual Environmental Management Report for the audit period are detailed below:

- November, December 2018 – 5 complaints
- 2019 – 32 complaints
- 2020 – 19 complaints
- January to November 2021 – 14 complaints

Based on observations during the site visit and interviews with site personnel there appears to be improved environmental management and monitoring practices with regard to air, noise and blast management through more effective communication methods and better practices. An example of this is the predictive environmental monitoring system that has implemented which provides daily weather predictions, as well as predictions of potential for noise and dust enhancement and impacts from planned blasting. In general the number of complaints received during 2021 is notably less than previous years.

6.3 Key Issue Environmental Performance

6.3.1 Heritage Management

No impacts to heritage items, or issues were identified during the audit period in regard to Aboriginal or historic heritage management. An existing identified Aboriginal Archaeology site which is being managed by MCC was observed during site visit and was observed to be fenced with appropriate signage in place (refer to **Photo 2** in **Appendix 5**).

6.3.2 Blasting

During the audit period MCC reviewed the Blast MP in accordance with the requirements of the development consent and EPL. This review of the Blast MP did not make any changes to the management practices or monitoring programs at MCC.

The Blast MP outlines the blasting techniques that are used onsite that aim to reduce air blast overpressure, ground vibration, fumes and odours from blasting activities.

Members of the public are notified of proposed blasting times by contacting the Blast Information Service Line where they hear a recorded message or by looking at the “Blasting Notices” page of the MCC website.

All blasts are monitored by four automatically triggered blast monitors. The monitors are maintained in accordance with the relevant standards and calibrated annually. There have been no exceedances of blasting criteria during the reporting period.

6.3.3 Noise

During the audit period MCC reviewed and updated the NMP in accordance with condition 14(e) of the development consent. This review of the NMP did not make any changes to the management practices at MCC, only administrative changes were made throughout the document.

MCC has a network of five attended noise survey locations. Monitoring is conducted at these sites monthly. Monthly attended monitoring allows for a variety of operating configurations, weather conditions and seasonal variations to be measured. The noise consultant schedules the monitoring to occur at times unknown to MCC and they determine the intervals between surveys and the time of measurement. Each attended noise survey is conducted during night periods only.

During the audit period there was no exceedances of noise criteria.

6.3.4 Air Quality

During the audit period MCC reviewed and updated the AQMP to reflect the results obtained from the Spontaneous Combustion Emissions Study. This review of the AQMP did not make any changes to the management practices at MCC but there were changes made to the air quality monitoring program. These changes include:

- The continuous monitoring of Sulphur Dioxide (SO₂) and Hydrogen Sulphide (H₂S) using a Serinus 51 automatic gas detector at only two locations (removing one location from Muscle Creek Road).

It also noted the AQMP has not incorporated any findings generated from the Spontaneous Combustion Study.

Dust generation was observed to be minimal during the site audit and overall dust monitoring results appear reasonable with no exceedances of criteria noted for the audit period. The dust controls in place at the site were considered appropriate. Equipment used to control dust generation include: water cart (sprays on haul roads and coal stockpiles), sprays at the Raw Coal Receiving Bin, sprays at conveyor transfer points, dust extraction cyclones or water injection systems on drill rigs.

Real time dust monitors are installed at MCC at locations both upstream and downstream of the mining operations with site personnel having real time access to these results. The forecasting system is used in conjunction with the dust monitoring results to predict weather and operating constraints. This highlights areas where sources of dust are likely and predicts wind shifts. Progressive rehabilitation is also a key control to assist to minimise dust generation potential in the future.

During the audit period there were days where the 24 hour PM₁₀ results were above the 24-hour criteria of 50µg/m³ at the compliance based monitoring locations but were attributed to either regional dust events or bushfire smoke and not the Project (refer to **Appendix 4**).

6.3.5 Spontaneous Combustion

During the audit period the SCMP was reviewed and updated to reflect the results obtained from the Spontaneous Combustion Emissions Study. The study noted areas to the east-northeast of MCM that may experience higher effects of spontaneous combustion emissions (as H₂S) than other locations, because of the elevated terrain. MCC have endeavoured to continue to monitor H₂S and SO₂ to assist with the verification of community concern since the complaints data, monitoring data and modelling results indicated that off-site odour (as H₂S) is detectable from time-to-time. MCC have also developed (under recommendation) a procedure to identify whether MCC may have contributed to monitored H₂S concentrations on a day of interest.

The main objective of the SCMP is to minimise the occurrence and manage the effect from spontaneous combustion in:

- The highwall and existing U/G mine workings in Open Cut 1
- The overburden/interburden removal and coal removal in Open Cut 1
- Active and recent emplacement areas within Open Cut 1
- Open Cut 2
- Coal emplacement and storage areas
- Elsewhere with the disturbance area.

Quarterly spontaneous combustion reports are provided to both RR and the EPA. These reports identify existing and new incidents of spontaneous combustion, mitigation procedures and improvements to these procedures, effectiveness of actions, areas capped, areas mined, areas under water infusion and complaints received. The report also includes a plan showing the extent and location of problem areas.

During the site inspection evidence of minor spontaneous combustion was observed within the pit located in Open Cut Mine 1. Water carts were deployed and controlled the incident accordingly in relation to the requirements outlined in the SCMP (refer to **Photo 3** in **Appendix 5**).

6.3.6 Traffic

No significant traffic impacts or issues were identified during the audit period in regard to MCM operations. During the audit period maintenance of Muscle Creek Road from the internal haul road to the New England Highway was undertaken including re-sheeting, resealing, grass maintenance and road sweepings.

6.3.7 Water

The WMP (V5) was approved in March 2018 (during the previous audit period) and the current version (V6) which is being used by site is not approved. Further it is understood that the WMP (V6) is currently under review with a further revision proposed. As discussed in **Sections 4.0** and **5.0** it is important that the WMP be submitted to MSC for approval and that the approved plan is implemented.

Two main natural catchments exist in the area of mining, associated with Muscle and Sandy Creeks. The area contains undisturbed land surfaces that drain towards Sandy and Muscle Creeks. However, some of the runoff is captured by dams. Water from undisturbed catchments is diverted around mining operations by diversion banks and channelled into adjacent watercourses.

Drainage from the coal crushing plant and stockpile area is collected in a dam and re-used for dust suppression. All disturbed or newly rehabilitated areas contain diversion banks (major and minor graded banks) to control the flow of water from catchment areas and to contain dirty runoff on the mine site.

During the audit period MCC maintained water management structures to contain any potentially contaminated water on site. This work included desilting of dams to maintain capacity and drain cleanout to remove blockages. Works were also undertaken in response to an issue raised by the NSW Resources Regulator to address an area where water was leaving the approved disturbance area near Open Cut 1 and entering a natural gully (defined as a non-disturbance area). This area was inspected during the audit and it was confirmed that the works have been completed and site water is prevented from entering this area.

In accordance with the WMP monthly surface water and groundwater monitoring is undertaken and records parameters such as water level, pH and Electrical Conductivity, total suspended solids etc. During the audit period there have been no exceedances of water quality criteria due to MCC's mining activities and water is not currently discharged from site.

6.3.8 Rehabilitation

In accordance with the conditions of the relevant mining leases, a review of the 2017 – 2023 MOP and Rehabilitation Plan was undertaken. MCC prepared the MOP for the period 4 January 2017 –December 2023 with the revised MOP approved by RR on 27 September 2019.

In accordance with the MOP, activities proposed over the MOP period include:

- Exploration drilling to confirm coal resources.
- Mining operations in Open Cut 1 to generally advance in a northerly direction from the existing mine workings with overburden emplacement in Open Cut 1 and Open Cut 2.
- Rehabilitation to continue to be progressively undertaken on areas that cease to be used for mining or mine-related activities as soon as reasonably practicable.
- A Decommissioning and Demolition Strategy will be developed for the site prior to closure.
- Investigation for decommissioning and demolition as well as site preparation

During the audit period it was confirmed that MCC have operated within their approved production limits, mining areas and within the approved Project boundary.

During the audit period the following rehabilitation activities were also undertaken; bulk shaping, spreading of topsoil, seeding with tree and pasture species, weed control and water management repair works including installed contour drains where required.

The final landform described in the MOP is considered to be consistent with that described in the SEE and Development Consent and from observations during the site inspection, from a landform establishment perspective the landform being developed onsite appears to be tracking in line with these plans.

The total area of rehabilitation progress completed during the audit period compared with the MOP targets is as follows:

- **2018 – 0 ha Completed v’s Mop Target of 0 ha (aligned)**
It is reported that there were minimal new areas available for rehabilitation so the focus this reporting period was on rehabilitation maintenance including weed control, pest animal control, re-seeding and reviewing the performance of the older rehabilitation areas.
- **2019 – 11.5 ha Completed v’s Mop Target of 11.29 ha (aligned)**
- **2020 – 10 ha Completed v’s Mop Target of 9.88 ha (aligned)**
- **2021 – 0Ha Completed v’s Mop Target of 0 ha (aligned)**

It was noted during the audit that bulk reshaping in available areas of Open Cut 2 was planned for 2021 with 45 Ha committed internally to be reshaped and contour drains and drop structures also planned to be installed. MCC fell short of this internal target with approximately 25 ha of the 45 ha reshaped and the contour drains and drop structures not yet installed (refer to **Photo 7** in **Appendix 5** for the area of unshaped overburden). It was observed in this area that following recent rainfall that significant rilling and erosion on the reshaped landform has occurred.

During the audit Brooke York advised that MCC have revised their planned target date for these works and are aiming to have the remaining area reshaped and contour drains and drop structures completed by the end of February 2022. This is recommended to be prioritised including installing the required contour drains and drop structures to avoid further degradation of the reshaped landform.

With regard to rehabilitation success the site inspection has found that to date results at MCM have been varied with some areas of historical rehabilitation performing well and appearing to be on track to achieve rehabilitation objectives (refer to **Photos 4** and **5** in **Appendix 5**). However, there are also a number of challenges presented in areas of more recent works for landform re-establishment that were observed. An example was the areas of reshaped landform located in open cut 2 which were showing signs of severe rilling and erosion (refer to **Photos 6** and **7** in **Appendix 5**). This area will require re-work including reshaping, additional topsoil and installation of contour drains and drop structures prior to completing rehabilitation works in this area in 2022 as planned.

A key risk to MCC achieving the rehabilitation objectives and completion criteria in the MOP is the lack of topsoil available onsite and the absence of a stockpile inventory detailing what is available and what is required for site rehabilitation. This has identified an apparent lack of the required detailed planning and direction in the lead up to closure next year. Brooke York explained during the site inspection they are aware of the limited material available and are currently investigating different alternative growth medium suppliers. One example of an alternative growth medium that has been used in some recent rehabilitation

was the use of biosolids and paper mulch while another product utilising recycled green waste (compost) was added to the maintenance areas prior to reseeded.

A key risk that needs to be considered when using these alternative growth mediums is confirming their suitability as a topsoil replacement and specifically how they are able to be used to achieve the sites rehabilitation objectives and completion criteria as specified in the MOP. One example of a Performance Indicator in the MOP that is considered at risk when using alternative growth medium is that *“soils in pasture and woodland areas are capable of supporting sustainable vegetation growth”* with the completion criteria for this indicator listing out a range of soil monitoring parameters that need to be met within a define range (eg. pH, organic matter, EC, potassium, etc). This is one example where there is a significant risk that the rehabilitation objectives in the MOP are at risk of being achieved as a result of the lack of topsoil resources particularly if the alternatives being considered and used are not suitable in this regard.

Due to the lack of a clear and definitive plan and the various uncertainties surrounding rehabilitation materials, availability, suitability and progress there is appears to be a significant risk that MCC will not achieve the sites rehabilitation objectives and targets within the planned timeframes in the MOP.

It is noted that many of these risks to achieving the sites rehabilitation objectives and targets were also identified by the NSW Resources Regulator during their Soils and Material’s Management Targeted Assessment Program (TAP) that they completed at MCM on 9 July 2020. As part of this audit the findings of the Resource Regulator’s TAP have been reviewed and it is considered that the recommendations contained within it are suitable to address the risks identified. Accordingly, and for consistency these recommendations have been included in **Section 7**.

Further it was advised following the completion of the site component of the audit that MCC have recently commissioned a consultant to prepare a new Rehabilitation Management Plan (RMP) for the site (replacing the MOP) in accordance with the NSW Resources Regulator Rehabilitation Reforms released in July 2021. MCC advised that it is planned that the new RMP will address many of the recommendations from the NSW Resources Regulator TAP.

As committed in the MOP, during 2022 (outside of the current audit period) 90ha of rehabilitation is planned to be completed. This represents the largest single year of planned rehabilitation at MCM. As described above a key risk to achieving this target in 2022 will be sourcing and securing sufficient growth medium as limited stockpiled topsoil resources remain on site and a significant deficit of material for use in rehabilitation has been identified.

Further, and as identified in **Section 4.1** a non-compliance has been identified for MCC not having an approved Mine Closure Plan in place for the site as required by Condition 19. This is considered to pose a medium risk as planned mine closure is in less than 12 months (end of 2022) and it is not able to be verified if the sites closure planning works are progressing towards the requirements and outcomes of the mine closure plan (as it is not yet approved).

It is also noted that to date a Decommissioning and Demolition Strategy has not been developed for the site, which is required to be prepared prior to closure as committed in the MOP.

During the audit period, surveys of rehabilitated land were ongoing to ensure the slope on final landforms is consistent with the MOP and the results are reported annually in the AEMR. It was noted from observations during the site inspection that the constructed slopes in Open Cut 2 are quite steep (refer to **Photo 4 in Appendix 5**) with Brooke York advising during the audit that these were right on the 14-degree limit specified in the MOP.

Weed management presents an ongoing challenge for the site and is subject to an annual program of management. During the site inspection it was observed that *Acacia saligna* is subject to ongoing management with Brooke York explaining that it is a focus of the sites annual weed management program. Various areas of die back as a result of successful spraying were also observed. It is recommended a continued focus on the removal of *Acacia saligna* is required.

A formal rehabilitation care and maintenance program has not been developed however it was explained that as an outcome of monthly rehabilitation inspections actions for rehabilitation maintenance are identified and entered into the INX system of tracking. The INX system was viewed onsite and examples of this included an action from June 2021 to remove prickly pear from areas of spoil and an action in May 2021 to conduct weed control in areas of Open Cut 2.

6.3.9 Mining and Site Infrastructure Areas

The site inspection component of the audit was conducted on 15 November 2021. The inspections involved a drive to various areas around the sites operational areas including the main mining areas, historic and recent rehabilitation areas, bioremediation area, CHPP water management system and environmental monitoring network followed by a walk-around the administration, workshop and hardstand areas (including the fuel farm).

During the site inspection, the CHPP and workshop area were found to be well maintained, with most areas managed to a relatively high standard (refer to **Photo 8 in Appendix 5**). Segregation of waste was observed to be well managed and implemented within the workshop area. Minimal dust emissions were observed from drills and mobile equipment during the inspection of active mining areas, and around the workshop hardstand.

However, during the inspection of the fuel farm and refuelling area, a number of hydrocarbon management issues were apparent. Two large containers (~1,000L) containing hydrocarbon contaminated water were sitting in an unbunded location waiting collection for disposal. There was also a small hydrocarbon spill located within the refuelling area, within a banded area that had been left unattended and didn't appear to have been actioned for clean-up with no spill kits/response evident (refer to **Photo 9 in Appendix 5**).

One drain located in the fuel farm banded area was blocked with hydrocarbon contaminated water filling up (refer to **Photo 10 in Appendix 5**). Also the oily water separator located near the wheel washing station appeared to be approaching capacity and we were advised it was due to be emptied (refer to **Photo 11 in Appendix 5**). Spill and containment kits were sighted and available for use however had not been used for the spills identified.

MCC operate a bioremediation area for the treatment of soil that has been contaminated by hydrocarbons and this was visited during the site inspection. It was explained by Sharn Crosdale (Environment Officer) that the bioremediation area is planned to operate with a number of cells where material is strategically placed for bioremediation before being collected and taken to the pit for disposal, once remediated (to be confirmed by soil monitoring). It was explained that all contaminated material from spills around site must first be approved by the environment team before being placed within the bioremediation cells so it can be tracked where it comes from and which cell it goes into for effective treatment and monitoring.

During the site inspection it was observed that the bioremediation area was not particularly well set up with no clear division or separation between cells and the signage for each cell had also been blown over (as they are not secured in the ground), and it was not clear which cell was which. The site was also not

levelled leading to water draining across the bioremediation area and accumulating in the bottom corner which would likely cause cross contamination of soil undergoing remediation (refer to **Photo 12** in **Appendix 5**). Following the audit it was advised by MCC that the site does have a bioremediation management plan to manage this area but it was not provided.

Recommendations to address the issues identified during the site inspection are provided in **Section 7.0**.

7.0 Recommendations and Conclusion

7.1 Recommendations

A summary of recommendations identified as an outcome of the audit process is provided in **Table 7.1**.

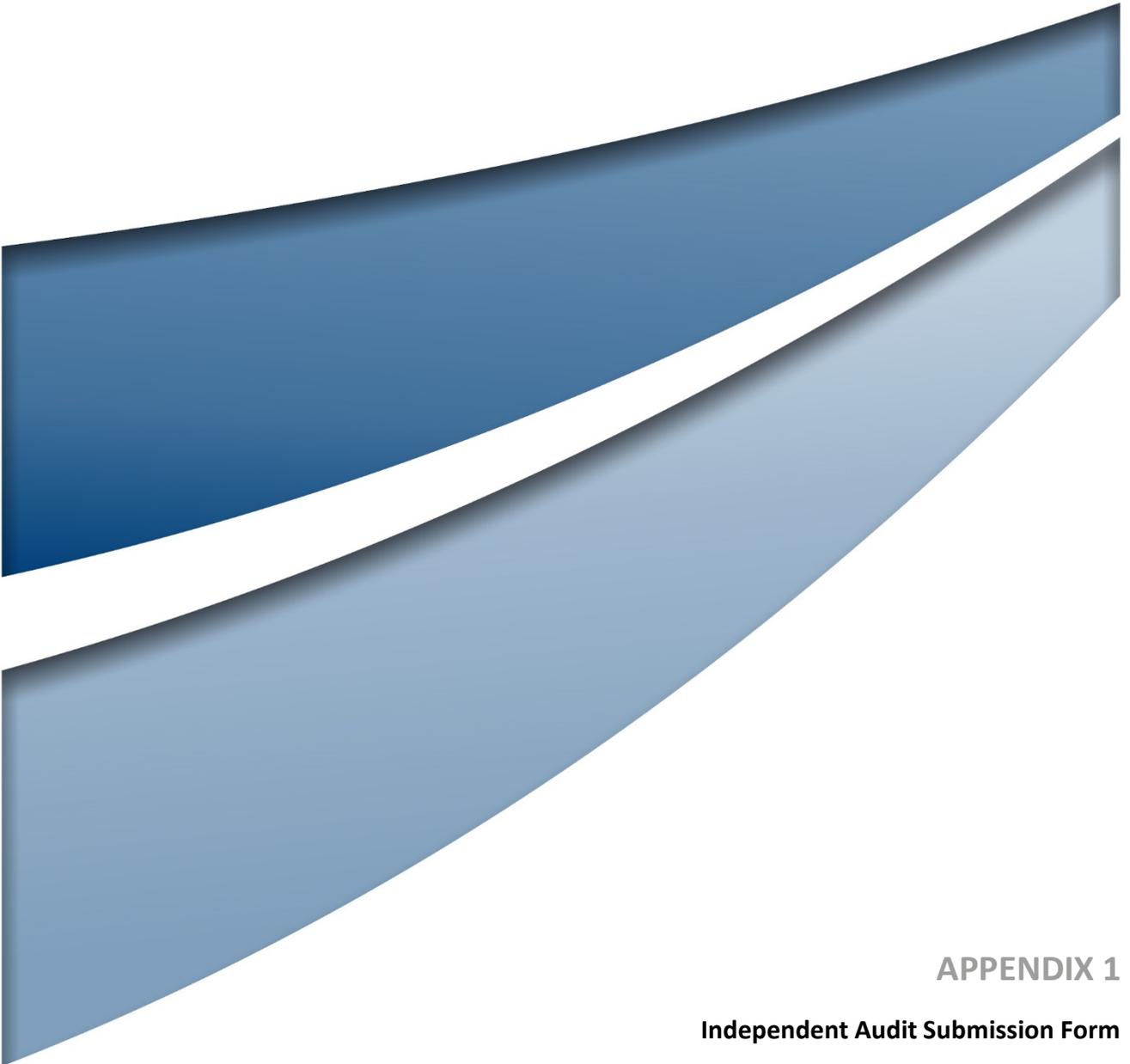
Table 7.1 Consolidated Recommendations

Condition/Issue	Recommendation
DA 205/2002	
13 (b)	Notification of appointment should be sent to MSB, OEH, DPI-Water and the CCC of Brooke York's appointment to Environmental Superintendent at MCM.
14 (c)	It is recommended the Environmental Management Strategy be sent to MSB for their records
17	Once the Rehabilitation Strategy is approved by MSC the Rehabilitation Plan should be revised to ensure it is consistent.
18	It is recommended that MCC progress discussion with MSC regarding the rehabilitation strategy and seek to have it approved.
19	It is recommended that MCC progress discussion with MSC regarding the Closure Plan and seek to have it approved. Once approved MCC should implement the plan as the site plans for completion of mining and closure at the end of 2022.
20	It is recommended that MCC meet the obligation under this condition and the restriction placed on the title to have the land fenced.
25	It is recommended that MCC complete the review and revision of the Water Management Plan in consult with DPI Water and submit the revised plan to MSC for approval.
26 (a)	It is recommended in Section 2.6 of the AEMR under waste management, that waste removed, total landfill and percentage recycled should be compared to previous years to track performance and seek to demonstrate all reasonable and feasible measures are employed to minimise waste.
42 (c)	It is recommended that MCC provide correspondence to the agencies that were missed and advise them of the oversight to submit a copy of the AEMR's to them and make them aware that they are available on the MCC website (and provide them the link).
42 (c)	MCC should ensure that the 2021 AEMR and all future AEMRs are provided to all agencies and the CCC as listed in Condition 42(c).
Water Access Licence 41521	
MW2338-00001	It is recommended that Water NSW is contacted regarding the failure to keep a logbook for water captured and pumped from the Open Cut voids as required by WAL 41521. Going forward WAL41521L should be metered and a logbook kept in accordance with requirements set out in the WAL conditions.
MW0606-00001	
MW2337-00001	
MW2339-00001	
Rehabilitation	
Condition 16/ MOP/Rehab Plan	It is recommended that MCC prioritise equipment and resources to complete the 2021 internal targets for landform reshaping within Open Cut 2 and install required contour drains and drop structures by end of Quarter 1 2022 as per the revised internal commitment.
MOP/Rehab Plan	Maintenance and rework should be undertaken for the area of failed landform reestablishment in Open Cut 2 where severe rilling and erosion has occurred. The contour drains and drop structures planned for this area should also be installed as a matter of priority in order to prevent future failures from occurring.

Condition/Issue	Recommendation
MOP/Rehab Plan	<p>The new RMP being prepared for MCM as required by the July 2021 Rehabilitation Reforms should include sufficient details to address the sites deficiency of topsoil and rehabilitation materials and outline what needs to be undertaken to achieve the sites rehabilitation objectives.</p> <p>It is important that this considers the suitability of any proposed alternative growth mediums and rehabilitation materials in achieving the rehabilitation objectives and completion criteria.</p>
MOP/Rehab Plan	<p>Undertake recommendations from the NSW RR Soils and Materials Management TAP including:</p> <ul style="list-style-type: none"> • Findings and recommendations contained in Final Rehabilitation Risk Assessment Report (required by NTCE0003170) are incorporated into a new MOP (or RMP) • The MOP (or new RMP) is updated to include the new soil management processes currently being developed on site • The TARP is updated to incorporate information for seeding, seed mix and rates, rehabilitation practices, monitoring findings and recommendations, and soil analysis and biosolid/recycled material analysis currently being developed • A spatial register of inert stockpiles is created and maintained; and • The MOP (or new RMP) is updated to include study findings that are in the process of being completed in relation to management of <i>Acacia Saligna</i>, final landform, drainage and material balance calculations.
MOP/Rehab Plan	It is recommended that MCC develop a formal rehabilitation care and maintenance program.
MOP/Rehab Plan	A continued focus on the removal of <i>Acacia saligna</i> is required.
MOP	Prepare a Decommissioning and Demolition Strategy for the site prior to closure.
Hydrocarbon Management	
	It is recommended hydrocarbon management measures are reviewed to ensure practices reflect existing operations and training or a focused toolbox talk is provided to all employees to confirm that they are aware of all requirements.
Bioremediation Area	
	It is recommended that the bioremediation area undergo further works to reinstate access, establish appropriate cells, install permanent signage and that the establishment of the site considers appropriate water management principles to avoid cross contamination.
	<p>It is recommended that the existing bioremediation management plan is reviewed and revised as necessary to ensure that the plan adequately covers how the bioremediation area is set up and managed. As a minimum the plan should include details for appropriate site set up and maintenance requirements, a documented process for contaminated material to be accepted and treated (including approvals, tracking and records), management and monitoring / testing requirements and the sign off process for recollection and disposal of remediated soil in pit.</p> <p>Once the review and any updates are made to the plan refresher training should be provided to all relevant personnel.</p>

7.2 Conclusion

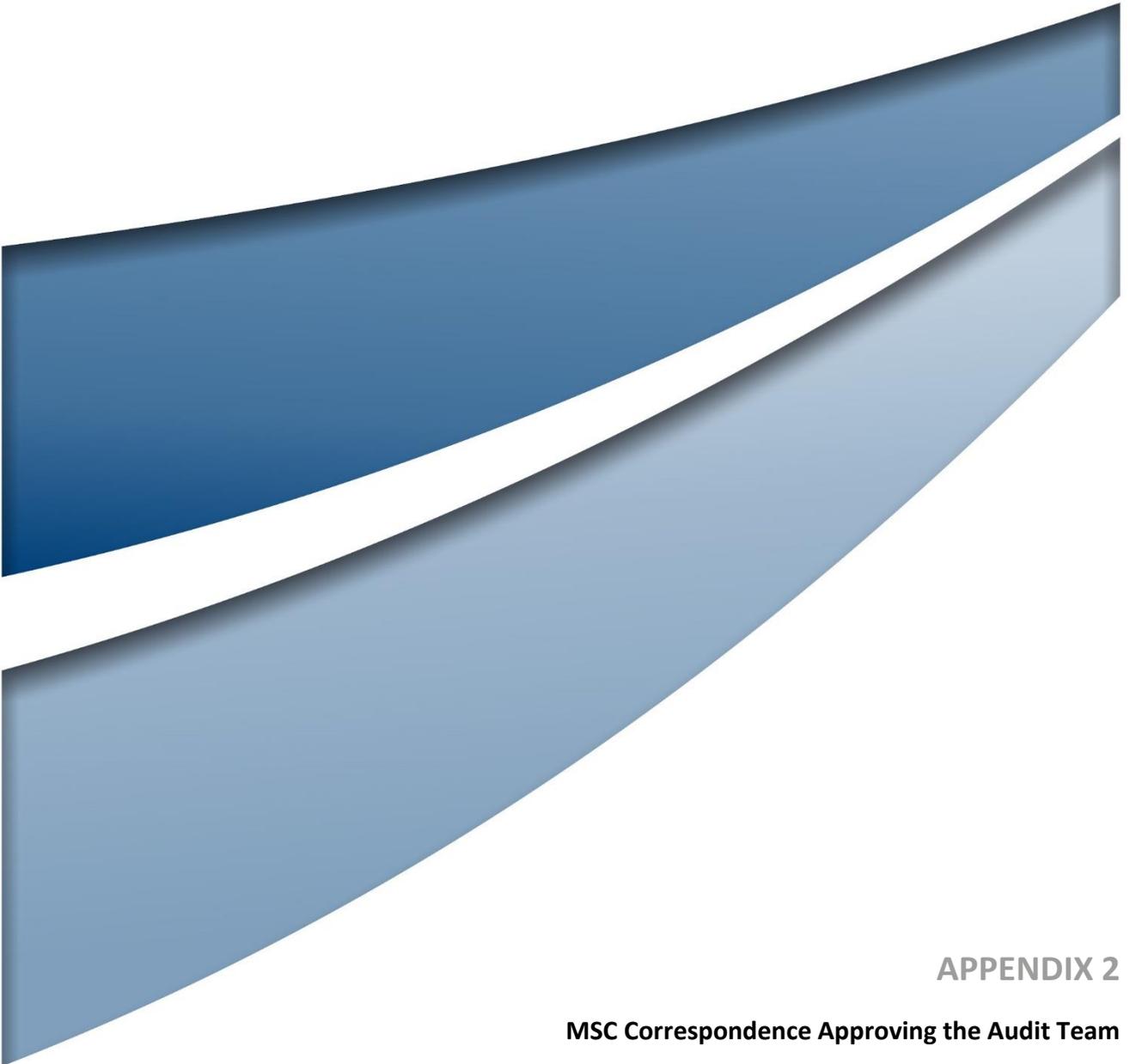
This IEA has assessed the compliance status of at MCC with the key approvals in place including the Development Consent for the mining operation, Mining Authorities, the water licences and the EPL. The audit has identified non-compliances and where appropriate, has made recommendations to improve the compliance status of the operation.



APPENDIX 1

Independent Audit Submission Form

Independent Audit Certification Form	
Development Name:	Muswellbrook Coal Company
Development Consent:	205/2002
Description of Development:	Operation of open cut coal mine
Development Address:	Coal Road, Muswellbrook, NSW
Independent Audit	
Title of Audit:	Independent Environmental Audit of Muswellbrook Coal Company
<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 19011:2014 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>Note.</p> <p>a) <i>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>b) <i>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 Auditor:	Daniel Sullivan
Address:	75 York Street Teralba NSW 2284
Email Address:	dsullivan@umwelt.com.au
Auditor Certification (if relevant):	Exemplar Global International Certified Lead Auditor 113202
Date:	7 January 2022



APPENDIX 2

MSC Correspondence Approving the Audit Team

Daniel Sullivan

From: Hamish McTaggart <Hamish.McTaggart@muswellbrook.nsw.gov.au>
Sent: Monday, 30 August 2021 4:34 PM
To: Brooke York
Cc: Sharn Crosdale
Subject: RE: Approval for Auditor
Attachments: image003.png

[WARNING: This email originated outside of Our Company.DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.]

Hello Brooke,

Thanks for the email. I can confirm that Council does not have any objection to Daniel Sullivan being engaged to carry out the Audit.

Regards,

Hamish McTaggart | Development Coordinator



T: 02 6549 3860 | E: Hamish.McTaggart@muswellbrook.nsw.gov.au | W: www.muswellbrook.nsw.gov.au

From: Brooke York <brooke.york@muscoal.com.au>
Sent: Monday, 30 August 2021 4:05 PM
To: Hamish McTaggart <Hamish.McTaggart@muswellbrook.nsw.gov.au>
Cc: Sharn Crosdale <sharn.crosdale@muscoal.com.au>
Subject: Approval for Auditor

Hi Hamish,

MCC is required to undertake an Independent Environmental Audit (IEA) in 2021 in accordance with Condition 41 of DA2002-205. Condition 41 b) vi requires that the audit "be conducted by a duly qualified independent person or team whose appointment has been endorsed by Council." MCC proposes to engage Umwelt (Australia) Pty Limited to undertake the audit. If approved, Daniel Sullivan will be the lead auditor and the audit will be conducted in Oct/Nov 2021. Daniel has excellent qualifications and experience (CV attached) and has been previously endorsed by Council. Please confirm if this auditor is approved by Council to conduct the 2021 IEA.

Please note: the audit will be undertaken with strict adherence to the current public health order in place at the time of the audit. A site inspection will be required as part of the audit. MCC will facilitate this inspection in accordance with the site specific COVID risk assessment.

Thanks,

Brooke York

Acting Environmental Superintendent

Muswellbrook Coal Company Ltd

 [Muscle Creek Rd, Muswellbrook NSW 2333](#)

 [+61 2 6542 2312](#)

[+61 402 629 074](#)

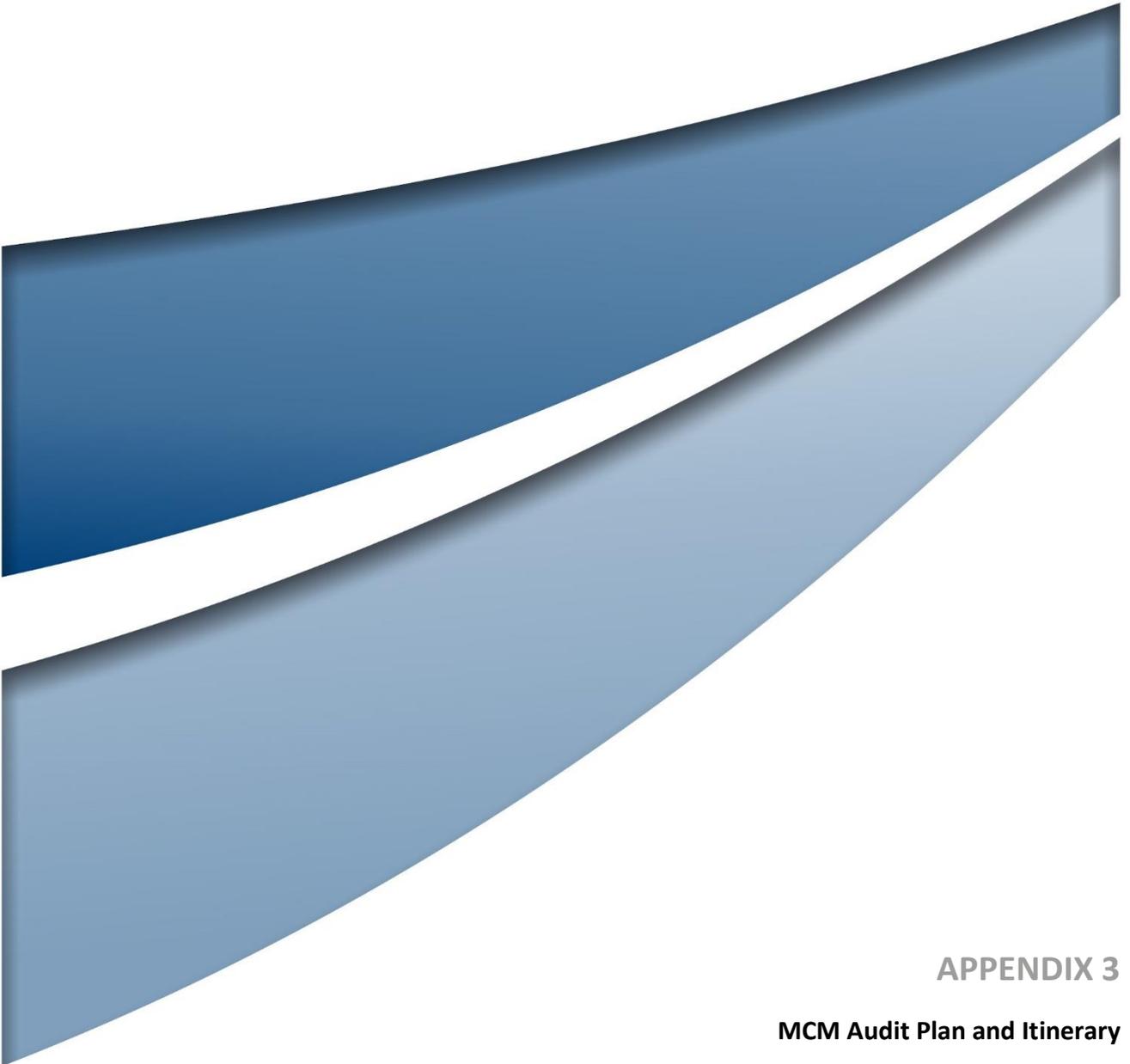
 brooke.york@muscoal.com.au

 idemitsu.com.au

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Muswellbrook Shire Council ABN 86 864 180 944



APPENDIX 3

MCM Audit Plan and Itinerary



Muswellbrook Coal Mine 2021 Independent Environmental Audit Audit Plan

To:	Sharn Crosdale (Idemitsu)
From:	Daniel Sullivan (Umwelt)
Author:	Daniel Sullivan (Umwelt)
Date:	30 September 2021
Subject:	Muswellbrook Coal Mine – 2021 Independent Environmental Audit

Audit Period : 28 November 2018 to 15 November 2021

Site Audit Date: 15 November 2021

Auditors: Lead Auditor – Daniel Sullivan
Auditor – Joshua Wheatley

1.0 Audit Objectives

The key objectives identified for the Audit are to assess Muswellbrook Coal Mine's compliance with:

- The Development Consent for DA 205/2002 as most recently modified (dated 27 October 2016);
- The Environmental Protection Licence (EPL);
- Relevant mining leases;
- All relevant water licences under the Water Act 1912 and Water Management Act 2000; and
- Management plans and the EMS which have been prepared for the operation.

This plan and any files transmitted with it are confidential and are intended to provide information for use in discussions between Umwelt and the named recipient(s) only.

2.0 Audit Scope

In accordance with the Muswellbrook Coal Mine's Development Consent (DA 205/2002) an Independent Environmental Audit of the operations is required to be undertaken by an auditor endorsed by Muswellbrook Shire Council (MSC). This audit is proposed to be undertaken in accordance with the NSW Government Independent Audit Guideline (October, 2015).

The Terms of Approval for the respective development consent identifies that the project shall be carried out generally in accordance with the:

- Environmental Impact Statement (EIS) that has been prepared;
- Supplementary information and documents submitted (as listed in the approval);
- Subsequent modification documents that have been submitted (as listed in the approval) and
- Conditions of the consent

3.0 Audit Criteria

The audit will assess the level of compliance and the environmental performance of Muswellbrook Coal Mine during the audit period 28 November 2018 to 15 November 2021 against the following approvals and licences:

- DA 205/2002;
- EPL 656;
- Water Licences 20BL169037, 20BL169038 and 20WA216982
- The EIS and subsequent modification documents for the operation;
- Mining Leases held by the operation; and
- Any strategy, plan or program which has been prepared for the operation.

Reporting of compliance is proposed to be based on the compliance assessment criteria as defined in the NSW Government Independent Audit Guidelines (October, 2015)

4.0 Audit Process

Document Review: The documents listed in Part 1 of **Table 1** below will be reviewed prior to and during the audit to enable compilation of audit checklists and allow the auditors to gain an understanding of the site operations. Documents identified in Part 2 of **Table 1** will be inspected during the audit.

Agency Consultation: Consultation with regulatory authorities including MSC, the EPA, MEG and DPI – Water will be conducted prior to the site inspection.

Site Inspection/Audit: One day has been allowed for the on-site component of the audit. To maximise the time on site, documentation as discussed below will be reviewed prior to the site inspection. An indicative itinerary for the site inspection is provided in **Table 2**.

During the audit, the following people are proposed to be interviewed (if available):

- General Manager/Mine Manager;
- Environmental Superintendent;
- Supervisors of operational areas visited during the site inspections; and
- Other persons identified during the course of the audit (as relevant).

For the Opening and Closing Meetings, it is suggested that as a minimum these should be attended by the General Manager, Environmental Superintendent, relevant area managers and any other personnel nominated by Idemitsu.

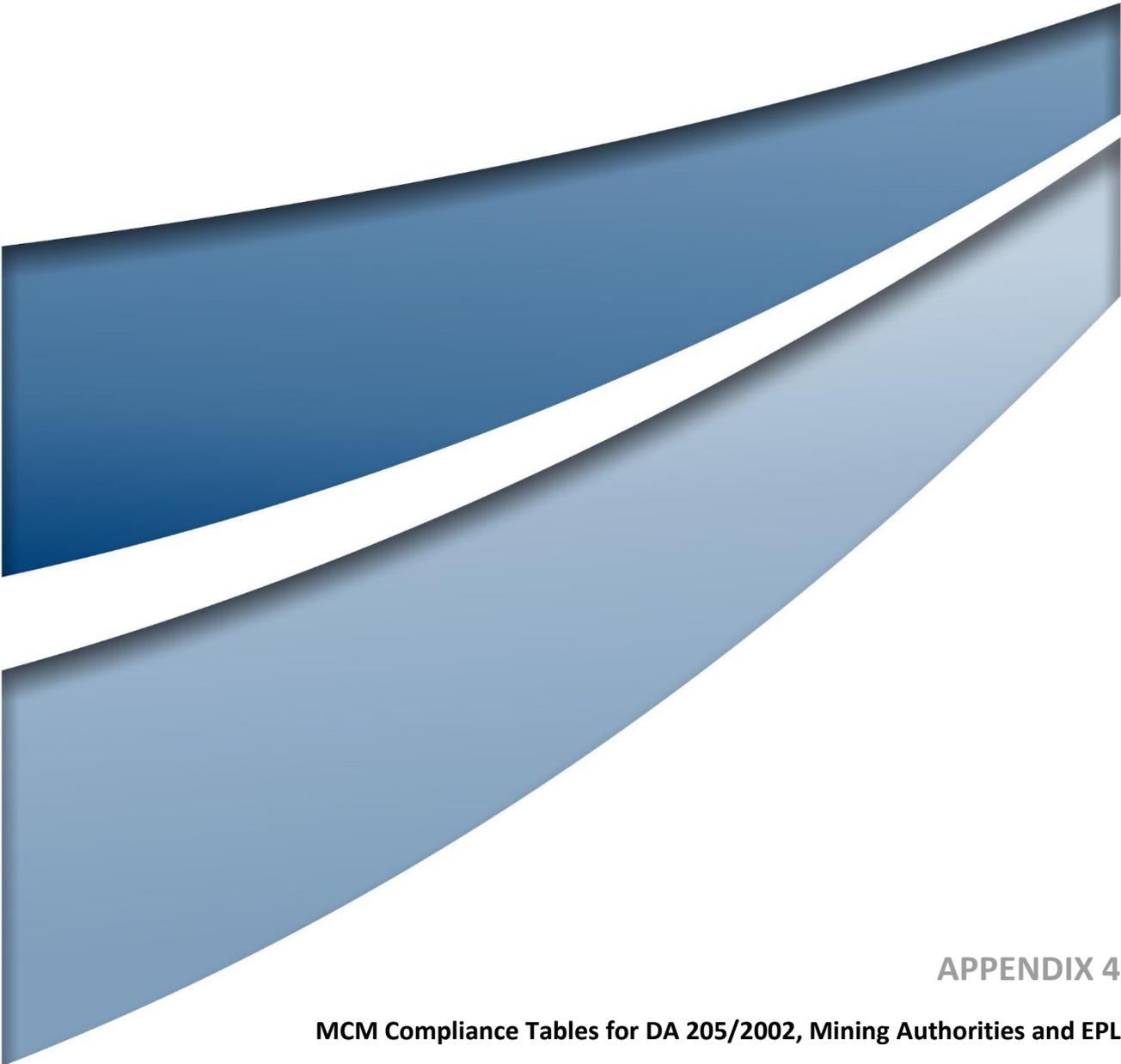
If preferred / required interviews and the open and closing meetings can be conducted using Microsoft Teams. It is required that the Environmental Superintendent is available to attend in person to assist the auditors on the day with the site inspection and audit against conditions.

Table 1 - Initial Documentation Requirements

Issue	Document	Status
Part 1 – Documentation Required Prior to Audit		
Approvals/Licences (preferably in word or excel format)	Development Consent (October 2016)	Obtained from Previous
	EIS and modification supporting documents	Obtained from Previous
	Mining Authorities	Required
	Water Licences	Required
	EPL 656	Required
Environmental Documentation	EPL Annual Returns (2018 – 2021)	Required
	PIRMP	Required
	Mining Operations Plan	Umwelt Downloaded
	Management Plans	Umwelt downloaded (all available on website)
	Environmental Management Strategy	Umwelt Downloaded
	Annual Reviews (2018 – 2020)	Umwelt Downloaded
	Monitoring data for 2021 YTD	Required
	Details of any PINs received and incidents reported within the audit period	Required
	Complaints databases for the audit period	Umwelt Downloaded
	Copies of correspondence to relevant agencies for consultation, submission and approval of plans	Available as appendices in the relevant management plan
Part 2 – Documentation Required During Audit		
Environmental Controls and Monitoring	Production data and coal transport data	During audit
	Waste management records	During audit
	Rehabilitation monitoring data	During audit
	Notification to landowners	During audit
	Acquisition requests if any	During audit
	Independent review reports if any	During audit
	Incident reporting and complaints management	During audit
Other	Copies of correspondence from agencies	During audit
	Plant maintenance, inspection and defects reporting records	During audit
	Training and competency records	During audit

Table 2 – Indicative Itinerary for Site Inspection/Audit

Day/Time	Description	Personnel
9.00am - 9.30am	Opening Meeting <ul style="list-style-type: none"> • Introductions • Purpose of Audit • Confidentiality Arrangements • Audit Process and Timing 	Mine Manager, Environmental personnel and site personnel as invited by Idemitsu <i>Can use Online Meeting if preferred for Idemitsu</i>
9:30am - 10:00am	Presentation on Muswellbrook Coal Mines Operations in Audit Period <ul style="list-style-type: none"> • Idemitsu personnel to present an overview of the operations on site, including outline of environmental management system and controls 	Environmental personnel
10.00am - 12.00 pm	Documentation Compliance Review <ul style="list-style-type: none"> • Review of DA 205/2002 • Water licences 	Environmental personnel and appropriate site personnel as required
12.00pm - 12.30pm	Lunch	
12.30pm - 2.00pm	Documentation Compliance Review (cont) <ul style="list-style-type: none"> • EPL • Mining authorities • Review key EIS commitments • Review activities against EIS and MOP • Regulator issues and audit feedback • Reportable incidents and complaints • Management plans commitments review • Training and communication • Any outstanding items 	Environmental personnel and appropriate site personnel as required
2.00pm - 4.00pm	Field Inspection <ul style="list-style-type: none"> • Main infrastructure areas (workshop, waste segregation, oil, wash-down, storage, etc.) • Hydrocarbon management areas including bioremediation area • Operations inspection • Rehabilitation areas • Monitoring network: air, noise, water, • Water & waste systems • Heritage sites • Any key private neighbour/stakeholder issues 	Environmental personnel and appropriate site personnel as required
4.00pm - 4.30 pm	Auditors Revision and Preparation for Closeout Meeting	Umwelt Auditors Only
4.30pm - 5.00 pm	Close Out Meeting <ul style="list-style-type: none"> • Overview of findings • Confirmation of outstanding items or documents required • Confirm audit review and completion process 	Mine Manager, Environmental personnel and site personnel as invited by Idemitsu <i>Can use Online Meeting if preferred for Idemitsu</i>



APPENDIX 4

MCM Compliance Tables for DA 205/2002, Mining Authorities and EPL

Development Consent Compliance Tables

DA 205/2002

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
General Conditions				
Obligations to Minimise Harm to the Environment				
1	The Applicant must implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, rehabilitation and, where relevant, decommissioning of the development.	Compliant	Environmental Management Strategy Environmental Management Plans Site inspection	The Muswellbrook Coal Company (MCC) Environmental Management Strategy (EMS) document provides the framework for environmental management at Muswellbrook Coal. It also generally addresses the requirements in the development consent. Findings and observations made during the audit and site inspection confirmed that MCC are implementing appropriate measures under the management plans to minimise material harm to the environment with no environmental incidents recorded during the audit period.
Adherence to terms of DA, EIS, etc				
2	The development must be carried out in accordance with the conditions of this consent and generally in accordance with: i. The accompanying SEE titled "Muswellbrook Coal Continuation Project, 1 & 2" by EMM dated April 2016. ii. "Muswellbrook Coal Continuation Project Response to Submissions" dated 20 July 2016. iii. the EIS titled "Muswellbrook Coal Company Limited, No. 1 Open Cut Extension Environmental Impact Statement 2002" dated July 2002, prepared by HLA-EnviroSciences Pty Limited and certified in accordance with Section 78A(8) of the EP&A Act; iv. The accompanying Statement of Environmental Effects document by Hansen Bailey dated August 2010. Where there is an inconsistency between two or more of the above documents, the most recent document prevails to the extent of that inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency.	Non-Compliant		The development is generally being undertaken in accordance with: i. The SEE titled "Muswellbrook Coal Continuation Project, 1 & 2" by EMM dated April 2016. ii. "Muswellbrook Coal Continuation Project Response to Submissions" dated 20 July 2016. iii. The EIS titled "Muswellbrook Coal Company Limited, No. 1 Open Cut Extension Environmental Impact Statement 2002" dated July 2002, prepared by HLA-EnviroSciences Pty Limited and certified in accordance with Section 78A(8) of the EP&A Act; iv. The accompanying Statement of Environmental Effects document by Hansen Bailey dated August 2010. Non-compliances against some of the conditions in this Development Consent have been identified during the audit period and are discussed in detail in these compliance tables and in the main audit report. None of the non-compliances identified by this audit are considered to have resulted in material harm to the environment.
Compliance with documentation				
3	The Applicant must comply with any reasonable requirement/s of Council arising from: • Any reports, strategies, plans, programs, audits or correspondence that is submitted in accordance with this consent; • Any reports, reviews or audits commissioned by Council or the Gas Health Study commissioned by the EPA regarding compliance with this consent; and • The implementation of any actions or measures contained in these documents.	Not Triggered		No requests received in accordance with this condition for the audit period (B. York Per Coms).
Period of Approval				
4	The Applicant may out carry mining operations until 31 December 2022. Note: Under this consent, the Applicant is required to rehabilitate the site to the satisfaction of Council and the DRE. Consequently, this consent will continue to apply in all other respects other than the right to conduct mining operations until the rehabilitation of the site has been carried out satisfactorily.	Compliant		Mining operations are still occurring as reported in the Annual Environmental Management Reports (AEMR). Current approved MOP allows mining operations until 31 December 2022 which aligns with this condition. Rehabilitation at the site is ongoing.
Project Commencement				
5	The Applicant must: a) notify Council in writing of the date of commencement of the development under this consent; and b) certify that it has obtained all the necessary approvals required to commence the development. c) ensure that employees, contractors and sub-contractors are aware of, and comply with, the conditions of this consent relevant to their respective activities.	Compliant	Awareness Power Point Presentation 20/08/2021, Environmental Training Need Analysis 2018	a) Outside of the audit period b) Outside of the audit period c) Sighted the General Workers Induction which discusses the Development Consent and that all workers must comply with it. All workers must undertake the induction every two years which is recorded in the INX Intuition

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
				Training System.
Dispute Resolution				
6	In the event that the Applicant or a Government agency, other than integrated planning bodies, cannot agree on the specification or requirements applicable under this consent, the matter shall be referred by either party to Council or if not resolved, to the Minister for Planning, whose determination of the disagreement shall be final and binding on the parties.	Not Triggered		No disputes during the audit period (B. York Per Coms)
Mine Management				
Limits on Production				
7	Product coal from the development must not exceed 2.0 Mtpa (Million Tonnes per annum).	Complaint	2018 AEMR, 2019 AEMR and 2020 AEMR 2021 Production data- PowerPoint presentation	A review of the 2018, 2019 and 2020 AEMRs identified that product coal has not exceeded 2.0 Mtpa during the audit period. 2020 = 1,148,962 t 2019 = 1,358,987 t 2018 = 1,711,271 t Product coal produced year to date for 2021 (as of October 2021) is 1,028,561 t.
Hours of Operation				
8	The maximum hours of operation at the development shall be as follows: • Open Cut Mining up to 24 hours, 7 days • Blasting 9am-5pm Mondays to Fridays. Note: Blasting hours may be extended outside these times where there is a demonstrated safety need and with the approval of Council.	Compliant	Blast Data from 26 Nov 2018 – 22 Oct 2021	A Blast Management Plan has been prepared for the development that specifies blasting must only take place between 9:00am and 5:00pm Monday to Friday. A review of blasting monitoring data has identified that all other blasting has been undertaken within the permitted times during the audit period.
Coal Haulage				
9	All coal haulage access to the mining lease area is restricted to the Private Coal Haul Road, Muscle Creek Road and New England Highway.	Compliant		Confirmed during the site visit that this is the only point of access.
Section 138 Permit – Maintenance on Muscle Creek Road				
10	The section of Muscle Creek Road from the internal haul road to the New England Highway is to be maintained by the Applicant to the satisfaction of the road authority being Council and must be in a well maintained, safe and appropriate condition at the end of all mining operations. At the end of mining operations the Road must be in a well maintained, safe and appropriate condition prior to Council taking responsibility for ongoing maintenance. NB: The required maintenance standard is detailed in RMS Specification “QA Specification M3 Routine Services”. The Applicant must obtain a Section 138 Consent under the Roads Act 1993 prior to any maintenance works being undertaken by the Applicant on Muscle Creek Road. The application for consent must include an assessment of the road’s Subnetwork ranking and a Routine Maintenance Annual Plan (RMAP) and shall generally be granted for a year for minor maintenance activities. Major activities including renewal works will require a separate 138 Consent. A contact person must be nominated for all matters dealing with Council roads.	Compliant	Road Activity Application Permit 2019/0060 Road Activity Application Permit 2022/0013 AEMR 2020	Maintenance works during the audit period included re-sheeting, resealing, grass maintenance and road sweepings on the internal haul road to the New England Highway. Sighted Section 138 Road Opening/Activity Permit Applications for the maintenance of Muscle Creek Road approved by Muswellbrook Shire Council (MSC) dated: • 08 January 2019 • 16 August 2021 The 2020 routine maintenance annual plan (RMAP) was originally submitted on 6 January 2020 but was not approved by Muswellbrook Shire Council (MSC). The 2019 Section 138 approval covering routine maintenance works to 31 January 2020 was extended to allow continuation of routine maintenance works until 1 May 2020. A second extension was then granted to cover works until 1 August 2020, and a further extension to 1 June 2021 was also granted. After 18 months of consultation the 2020 RMAP for Muscle Creek Road was finally approved by MSC. The permit allows for maintenance works to commence from the 1 June 2021 to the 30 June 2022.
Operation of Plant and Equipment				
11	The Applicant must ensure that all plant and equipment used on site, or to monitor the performance of the development is maintained and operated in a proper and efficient manner at all times.	Compliant	Induction Records 6/09/2021 Service logs 31 May 2019 SAP Maintenance Records	All equipment and plant used on site is maintained at the on-site workshop and appears to be operated in an efficient manner. P. Hetherington (Maintenance Superintendent) was interviewed who explained the equipment maintenance system “SAP” and how it is employed on site. Service logs dated 6 September 2021 were sighted for plant/machinery which required repairs and also for scheduled maintenance and servicing. Induction records were also sighted dating 31 May 2019.

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
Meteorological Monitoring				
12	<p>For the life of the development, or as otherwise agreed by Council the Applicant must ensure that there is a meteorological station located on site that:</p> <p>a) Complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guidelines; and</p> <p>b) Is capable of continuous real time measurement of temperature inversions in accordance of the Industrial Noise Policy or superseding document, unless a suitable alternative is approved by Council following consultation with the EPA.</p> <p>The weather station must measure the following:</p> <ul style="list-style-type: none"> • Wind direction at 10 metres above the ground • Wind speed at 10 metres above the ground • Temperature at 2 metres above the ground • Temperature at 10 metres above the ground • Sigma theta at 10 metres above the ground • Rainfall <p>All measurements are to be continuous and averaged over 15 minutes with the exception of rainfall that is averaged hourly.</p>	Compliant	<p>Air Quality Monitoring Program, CBased</p> <p>Environmental MMS Calibration Certificates 2018,2019,2020,2021</p> <p>Evirondata solar radiation calibration certificate</p>	<p>The Meteorological Monitoring Station (MMS) is located on rehabilitated land to the immediate west of Open Cut 1. This station is part of the Real Time Environmental Monitoring System (RTEMS). The MSS complies with the requirements of the Development Consent and the Environmental Protection Licence (EPL).</p> <p>The principal MMS provides 10m elevation wind speed and direction, 2m and 10m elevation air temperature, rainfall, humidity, barometric pressure, sigma theta and stability class. In addition, a calculation is performed to calculate temperature inversions.</p> <p>Sighted calibration certificates carried out by Carbon Based Environmental for the MMS during the audit period demonstrating the MMS had passed all of the relevant tests dates:</p> <ul style="list-style-type: none"> • 14 April 2021 • 16 April 2020 • 28 April 2020 • 17 April 2019 (It was noted the Solar Radiation sensor was replaced during the 2019 calibration.) • 07 May 2018
Land and Site Environmental Management				
Appointment of Environmental Officer				
13	<p>(a) The Applicant must ensure that a suitably qualified or experienced Environmental Officer, to the satisfaction of Council is available throughout the life of the mine. The Environmental Officer shall:</p> <p>(i) be responsible for the co-ordination of the preparation of the Environmental Management Plan</p> <p>(ii) be responsible for considering and advising on matters specified in the conditions of this consent and compliance with such matters;</p> <p>(iii) be responsible for establishing systems to receive and respond to complaints;</p> <p>(iv) facilitate an environmental induction and training program for all persons involved with mining and rehabilitation activities; and</p> <p>(v) take reasonable steps to avoid or minimise adverse environmental impacts. The Environmental Officer shall advise the Mine Manager to issue instructions to stop work if a significant adverse impact on the environment is likely to occur.</p> <p>(b) The Applicant must notify Council, DRE, MSB, EPA, OEH, DPI-Water and the CCC of the name and contact details of the Environmental Officer and any changes to that appointment.</p>	Administrative Non-compliance	<p>December 2020 CCC Minutes</p> <p>Email correspondence from 28 October 2020 EPA, Council</p> <p>15 December 2020 email correspondence RR</p> <p>2018 AEMR</p> <p>2019 AEMR</p> <p>2020 AEMR</p>	<p>In accordance with this condition, Julie Thomas has been in the Environmental Officer role between 2018 and 2020 as reported in the AEMRs. Since October 30, 2020, Brooke York has been the acting Environmental Officer from 30 October 2020 – present while Julie is on maternity leave. EPA and MSC were notified on the 28 October 2020. RR was notified in person with corresponding email chain showing confirmation dating from 15 December 2020.</p> <p>There is no evidence of notification of changes to this appointment being sent through to MSB, OEH, DPI-Water and the CCC of Brooke York's temporary appointment to Environmental Officer while Julie is on maternity leave. It is recommended notifications be sent notify relevant agencies of the temporary change in appointment.</p>
Environmental Management Strategies and Plans				
14	<p>(a) The Applicant must prepare an Environmental Management Strategy, providing a strategic context for the Environmental Management Plans. The Environmental Management Strategy must be prepared following consultation with the OEH, EPA, DRE, DPI Water and the CCC and to the satisfaction of Council.</p> <p>(b) The Environmental Management Strategy must include, but not be limited to:</p> <p>(i) statutory and other obligations which the Applicant is required to fulfil during mining, including all approvals and consultations and agreements required from authorities and other stakeholders, and key legislation and policies;</p> <p>(ii) definition of the role, responsibility, authority, accountability and reporting of personnel relevant to environmental management, including the Environmental Officer;</p> <p>(iii) overall environmental management objectives and performance</p>	Administrative Non-compliance	<p>Environmental Management Strategy</p>	<p>An Environmental Management Strategy has been prepared providing a strategic context for the Environmental Management Plans, this condition (a) has been verified and confirmed during the previous audits (occurred outside audit period).</p> <p>The Environmental Management Strategy includes the requirements of this condition in the following sections:</p> <p>(i) Section 2 and Appendix 1</p> <p>(ii) Section 3.2</p> <p>(iii) Section 4 and 5</p> <p>(iv) Section 4</p> <p>(v) Section 5</p> <p>(vi) Section 9</p> <p>(vii) Section 9</p>

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
	<p>outcomes, during mining and decommissioning of the mine, for each of the key environmental elements for which management plans are required under this consent;</p> <p>(iv) overall ecological and community objectives for the project, and a strategy for the restoration and management of the areas affected by Mining Operations, including elements such as wetlands and other habitat areas, creek lines and drainage channels, within the context of those objectives;</p> <p>(v) identification of cumulative environmental impacts and procedures for dealing with these at each stage of the development;</p> <p>(vi) steps to be taken to ensure that all approvals, plans, and procedures are being complied with, namely procedures:</p> <ul style="list-style-type: none"> • to receive, handle, respond to and record complaints; • to respond to any non-compliances; and • to respond to emergencies. <p>(vii) processes for conflict resolution in relation to the environmental management of the project; and</p> <p>(viii) documentation of the results of consultations undertaken in the development of the Environmental Management Strategy.</p>			(viii) Appendix 1
14	<p>(c) The Applicant must make copies of the Environmental Management Strategy available to EPA, OEH, DRE, MSB, DPI Water and the CCC and be placed on the Applicant's website following approval by Council.</p> <p>(d) The Applicant must prepare the following Environmental Management Plans and submit to Council for review at the times listed below, or at other times as agreed by Council, following approval of the Continuation Project Modification:</p> <p>Document Timeframes following approval date of Continuation Project</p> <p>Environmental Management Strategy 6 months</p> <p>Spontaneous Combustion Management Plan 3 months</p> <p>Visual Amenity, Lighting and Landscaping Management Plan 6 months</p> <p>Bushfire Management Plan 12 months</p> <p>Mine Closure Plan 12 months</p> <p>Water Management Plan 6 months</p> <p>Rehabilitation Plan 6 months</p> <p>Rehabilitation Strategy 6 months</p> <p>Air Quality Management Plan 3 months</p> <p>Blasting/ Vibration Management Plan 3 months</p> <p>Noise Management Plan 3 months</p> <p>These Environmental Management Plans and strategies may also form part of the overall Site Environmental Management Plan.</p>		<p>Agency Correspondence</p> <p>Sent on the 5 June 2020 MCC and approved on the 2 October 2020</p> <p>29 April correspondence dated 29 April 2020 sent to RR, Office Environment, NRAR, EPA)</p> <p>Letters were sent to CCC on 1 May 2020.</p>	<p>Sighted email correspondence dated 5 June 2020 for the revision of the Environment Management Strategy (Appendix 1 of the Environmental Management Strategy) with OEH, EPA, RR and NRAR providing a copy of the document for review and comment. Letters were sent on the 1 May 2020 to members of the CCC, with email correspondence being sent to MCC dated 05 June 2020.</p> <p>The approved Environmental Management Strategy is available on the website: https://www.idemitsu.com.au/mining/operations/muswellbrook-coal/approvals-plans-reports/</p> <p>The revised Environmental Management Strategy was not sent to MSB following the revision of the plan. It is recommended the plan to be sent to MSB for their records.</p> <p>As confirmed by previous audit the Rehabilitation Strategy and Mine Closure Plan was submitted to MSC however during this audit period they have not been approved due to uncertainties surrounding final land use. It is understood that MCC are in discussions with MSC to consider removing the Rehabilitation Strategy requirement from the Development Consent (B. York Per Coms). All other plans have been verified and confirmed in the previous audit.</p> <p>It is recommended MCC seek to engage with MSC in order to resolve any outstanding issues in order to gain approval of the Mine Closure Plan and resolution as to whether the Rehabilitation Strategy is required to avoid further non-compliance.</p>

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
	<p>(e) The Management Plans or Strategies are to be reviewed, and updated every three years or at other reasonable times as directed by Council, in consultation with the relevant government agencies. With the agreement of Council, the Applicant may prepare any revised plan or strategy without consultation with all parties under the applicable condition of this consent. The review should consider contemporising environmental requirements or changes in technology/operational practices. Any changes which are proposed shall be made and approved in the same manner as the initial Environmental Management Plan or Strategy. The Management Plans or Strategies shall be made publicly available within two weeks of approval by Council.</p> <p>The Applicant must implement the approved management plans as approved from time to time by Council.</p>			<p>The management plans were approved following the modification for the continuation of the development and have been revised during this audit period. Evidence of consultation with the relevant agencies for each of the management plans is provided as an appendix for majority of the management plans.</p> <ul style="list-style-type: none"> • Environmental Management Strategy V5 – revised on the 7 October 2020 (sighted correspondence from MSC dated 2 October 2020, sighted letters to relevant regulators dated 29 April 2020 and sighted letters to CCC Committee Members 1 May 2020) • Spontaneous Combustion Management Plan V5 –revised December 2020 (correspondence from MSC sighted 30 November 2020) • Visual Amenity, Lighting and Landscaping Management Plan V5–revised 7 October 2020 (sighted correspondence from MSC dated 2 October 2020) • Bushfire Management Plan V5 – revised December 2020 (sighted letter of approval from MSC dated 30 November 2020) • Mine Closure Plan – not approved • Water Management Plan V6 –. The latest revision of the Water Management Plan V6 has yet to be approved by MSC. • Mine Operations Plan and Rehabilitation Plan (Amendment A) – revised on the 12 November 2019 (sighted correspondence approval from Resource Regulator dated 27 September 2019) • Rehabilitation Strategy – not approved • Air Quality Management Plan V5 – revised 1 December 2020 (sighted correspondence of approval from MSC dated 1 December 2020) • Blasting Management Plan V5 – revised 28 May 2020 (sighted correspondence form EPA n.d., Resource Regulator 29 April 2020 and MSC 26 May 2020) • Noise Management Plan V6 – revised December 2020 (sighted correspondence from EPA dated 21 October 2020 and MSC dated 30 November 2020) <p>The approved plans are available on the MCC website.</p>
Rehabilitation				
15	<p>(a) The Applicant must rehabilitate the site to the satisfaction of the DRE.</p> <p>(b) Rehabilitation must be substantially consistent with the rehabilitation objectives described in the SEE (EMM April 2016) Appendix B.</p>	Not Triggered	AEMR 2018, AEMR 2019, AEMR 2020	<p>Mining operations are still ongoing at the site until 31 December 2022.</p> <p>The commitments in the MOP/Rehabilitation Plan were found to be consistent with the commitments in the SEE.</p>

Condition Number	Condition	Compliance	Evidence	Evidence and Comments																
	<p>(c) Rehabilitation must be in accordance with the Rehabilitation Plan.</p> <table border="1" data-bbox="350 321 1151 1266"> <thead> <tr> <th data-bbox="350 321 516 352">Rehabilitation</th> <th data-bbox="516 321 1151 352">Objectives</th> </tr> </thead> <tbody> <tr> <td data-bbox="350 352 516 478">Mine site (as a whole of the disturbed land and water)</td> <td data-bbox="516 352 1151 478">Safe, stable and non-polluting, fit for purpose of the intended post-mining land uses(s). Final landforms designed to incorporate natural micro-relief and natural drainage lines, which, where reasonable and feasible, further avoid straight run drainage drop structures, to integrate with surrounding landforms.</td> </tr> <tr> <td data-bbox="350 478 516 552">Rehabilitation materials</td> <td data-bbox="516 478 1151 552">Materials (including topsoils, substrates and seeds of the disturbed areas) are recovered, appropriately managed and used effectively as resources in the rehabilitation.</td> </tr> <tr> <td data-bbox="350 552 516 709">Landforms</td> <td data-bbox="516 552 1151 709">Final landforms sustain the intended land use for the post-mining domain(s). Final landforms are consistent with and complement the topography of the surrounding region to minimise the visual prominence of the final landforms in the post mining landscape. 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Annual Reviews 2018,2019, 2020 Mining Operations Plan/Rehabilitation Plan	<p>The rehabilitation objectives are described in the combined MOP/RP document in the following sections:</p> <ul style="list-style-type: none"> Mine site (as a whole of the disturbed land and water) – Section 4.3 Rehabilitation materials – Section 3.2.8 Landforms –Section 4.2 Final voids – Section 7.3.3 Water Quality – Section 6.0 Native flora and fauna habitat and corridors – Plan 4 and Section 7.2.4 Post-mining agricultural pursuits – Section 6.0 <p>During the audit period the following rehabilitation activities were undertaken; bulk shaping, soil sampling, spreading of topsoil, seeding with tree and pasture species, weed control, rock raking and water management repair works including the construction of contour drains where required.</p> <p>This is further assessed in evidence for condition 16 below.</p>
Rehabilitation	Objectives																			
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Progressive Rehabilitation																				
16	The Applicant must carry out all surface disturbance activities (e.g. pre-stripping in advance of mining) in a manner that, as far as is reasonably practicable, minimises potential for dust emissions and shall carry out rehabilitation of disturbed areas progressively, as soon as reasonably practicable, to the satisfaction of the Director, Environmental Sustainability, of DRE.	Compliant	AEMR 2018,2019, 2020 Mining Operations Plan/Rehabilitation Plan	<p>The MOP/RP commits to “Rehabilitation will continue to be undertaken progressively, as soon as reasonably practicable. This will reduce the amount of disturbed land at any one time and minimise the areas requiring water management”.</p> <p>During the audit period there has not been a lot of recent rehabilitation given the limited land available to rehabilitate. Rehabilitation activities during the audit period have mainly been limited to the maintenance of previous rehabilitation and reshaping and rehabilitation of overburden emplacement areas.</p> <p>The main activities that were scheduled to be undertaken during the stages of the MOP which are relevant to the audit period (2018-2021) include landform establishment and appropriate water management structures for final landform. During the audit period ongoing water quality monitoring has been undertaken to ensure it meets ANZECC Guidelines for beef cattle consumption. During the audit period, surveys of rehabilitated land were ongoing to ensure the slope on final landforms is less than 14% and the results are reported annually in the AEMR.</p> <p>Total area of rehabilitation progress undertaken during the audit period against the commitments in the MOP/Rehabilitation Plan is as follows:</p> <ul style="list-style-type: none"> 2018 – 0Ha of new rehabilitation - Due to changes in the mine plan associated with the Continuation Project, there were no new areas available to rehabilitate. The focus this reporting period was on rehabilitation maintenance including weed control, pest animal control, re-seeding and reviewing the performance of the older rehabilitation areas. 2019 – 11.5 Ha 																

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
				<ul style="list-style-type: none"> 2020 – 10 Ha 2021 – 0Ha of new rehabilitation. The focus for 2021 was to shape the area in OC2 required to meet the rehabilitation target for 2022 and install surface water management structures (drop structure and contour banks). The end of 2020 AEMR indicated approximately 45Ha of overburden would be shaped for rehabilitation. As of November 15 2021 approximately half of the 45Ha had been shaped and water structures were yet to be installed, leaving it unlikely the 2021 target (45Ha of reshape and installation of drop structures) would be reached. Equipment availability and personal shortages during the period were the main reasons for the slow progress but MCC are looking to catch up and meet targets by February 2022 (B. York Per Coms). <p>It is recommended that MCC prioritise equipment and resources to complete the 2021 targets for reshaping all of the 45ha within OC2 and install required drainage and drop structures by end of Quarter 1 2022.</p>
Rehabilitation Plan				
17	<p>The Applicant must prepare a Rehabilitation Plan to the satisfaction of the Director, Environmental Sustainability, DRE.</p> <p>The Rehabilitation Plan must:</p> <p>(a) Be consistent with the Rehabilitation Strategy;</p> <p>(b) Be approved by the Director, Environmental Sustainability prior to carrying out any surface disturbance activities, on land subject of the Modification, unless otherwise agreed by Council.</p> <p>(c) Be prepared in accordance with the DRE guidelines and in consultation with DRE, OEH, Council and the Community Consultative Committee;</p> <p>(d) Incorporate and be consistent with the rehabilitation objectives of the SEE (EMM April 2016) and Appendix B of the SEE, and the Rehabilitation Strategy required by this consent;</p> <p>(e) Integrate and build on, to the maximum extent practicable, the other management plans required under this consent;</p> <p>(f) Address all aspects of mine closure and rehabilitation, including post mining land use domain, rehabilitation objectives, completion criteria and rehabilitation monitoring and management, and;</p> <p>(g) Include the location of the proposed Muswellbrook Bypass on relevant plans by way of including the Bypass zoning boundary on the plans.</p>	Non Compliant	MOP/Rehabilitation Plan	<p>The Rehabilitation Plan is not consistent with the Rehabilitation Strategy (and as noted in Condition 18 the Rehabilitation Strategy has not been approved).</p> <p>Verified and confirmed by previous audit. Outside audit period.</p> <p>The commitments in this MOP/RP are consistent with the commitments in the SEE.</p> <p>The Rehabilitation Plan has considered other management plans required under this consent.</p> <p>The MOP/RP adequately addresses all requirements of this condition. The revised plan was approved by RR on the 27 September 2019.</p> <p>The Muswellbrook Bypass is shown on plans where practical.</p> <p>Once the Rehabilitation Strategy is approved by MSC the Rehabilitation Plan should be revised to ensure it is consistent.</p>
Rehabilitation Strategy				
18	<p>(i) The Applicant must prepare a Rehabilitation Strategy to the satisfaction of Council. The Rehabilitation Strategy must:</p> <p>Provide for the establishment of habitat corridors as part of the final rehabilitated landform to replace areas of forest and woodland vegetation that are to be removed under the proposed mine plan. The strategy must outline the vegetation species selected for the corridor, the width and length of the corridor and how this corridor's specifications will facilitate the movement of the identified species planned for its use;</p> <p>(ii) ensure that any vegetated areas cleared for any future construction purposes and not utilised in the Mining Operations are restored at least to a condition as agreed to by consultation with relevant stakeholders;</p> <p>(iii) develop a plan for vegetation rehabilitation involving re-establishment of</p>	Non Compliant		<p>The Rehabilitation Strategy has previously been prepared and submitted to MSC for review and approval however to date it has not been approved by MSC. Accordingly given that this strategy has not been approved the audit has found that the draft strategy as developed is not to the satisfaction of MSC.</p> <p>Given that Rehabilitation has been progressing in accordance with the approved Rehabilitation Plan (refer to Condition 16) and the site is approaching closure at the end of 2022 Muswellbrook Coal are in discussion with MSC to remove this condition as part of a development consent amendment (B. York Per Coms)</p> <p>It is recommended that MCC progress discussion with MSC regarding the rehabilitation strategy and seek to have it approved.</p>

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
	<p>native species, especially groundcover species, in order to prevent erosion and future degeneration of the communities;</p> <p>(iv) ensure that all rehabilitated slopes are effectively and appropriately stabilised. Consider the use of native vegetation on the void slopes and pasture grasses on flatter areas to improve land use outcomes and minimise maintenance;</p> <p>(v) include the location of the proposed Muswellbrook Bypass on relevant plans by way of including the Bypass zoning boundary on the plans.</p> <p>(vi) provide that a minimum of 23 ha shall be re-forested utilising the following species that shall be sourced from local seed provinces; Grey-box, Bulloak, Narrowed-leaved Iron Bark and Grey Gum or an equivalent area of 23ha comprising of similar flora structural and floristic characteristics in green-offsets;</p> <p>(vii) outline and describe a stormwater drainage design for the mine site;</p> <p>(viii) explain the timeframe of rehabilitation, both in terms of topsoil remediation and for the lifespan of erosion and sediment control structures on the site;</p> <p>(ix) where possible and if available, suitable timber cleared from the mine site is to be used to create stag trees for wildlife habitat in the rehabilitated areas, and;</p> <p>The Applicant must prepare a Rehabilitation Strategy for the Muswellbrook Coal Mine site to the satisfaction of Council.</p>			
Closure Plan				
19	<p>The Applicant must prepare a Mine Closure Plan for the development to the satisfaction of Council, and carry out the development in accordance with this plan. The plan must:</p> <ul style="list-style-type: none"> - Be prepared in consultation with DRE and DPI Water; - Provide a description of the known reasonable history of mining operations conducted within the consent boundary. - Provide detailed plans showing final landform and drainage detail; - Define the objectives and criteria for mine closure, with the exception of rehabilitation objectives and criteria, which are defined in the Rehabilitation Plan; - Provide a chart outlining the indicative timing and sequence of the closure project; - Outline the process to make changes to management plans during and following closure and where the closure plan will supersede management plan requirements; - Describe measures that would be implemented to minimise or manage the ongoing environmental effects of the development; - Describe how the performance of these measures would be monitored over time; - Describe the changes to the monitoring regime of the development following the cessation of mining; and - Include the location of the proposed Muswellbrook Bypass on relevant plans by way of including the Bypass zoning boundary on the plans. 	Non Compliant		<p>The Mine Closure Plan has not been approved by MSC. Accordingly given that this plan has not been approved the audit has found that the draft plan as developed is not to the satisfaction of MSC.</p> <p>It is considered a risk that the Closure Plan is not approved at this late stage of the development given that the site is planned to close in approximately 12 months' time (end of 2022) and it is not able to be verified if the sites closure planning and rehabilitation is progressing towards the requirements and outcomes of the mine closure plan.</p> <p>It is recommended that MCC progress discussion with MSC regarding the Closure Plan and seek to have it approved. Once approved MCC should implement the plan as the site plans for completion of mining and closure at the end of 2022.</p>

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
Restriction as to User – Vegetation Offset Area				
20	<p>A restriction as to user must be registered on the title of affected land for the purpose of creating a Vegetation Offset Area as indicated on Figure 1 'Proposed Offset Area' prepared by Hansen Bailey dated 12/10/10 Cad file: 06836A.dwg. Muswellbrook Council must be nominated as the sole authority empowered to vary or modify the restriction.</p> <p>The terms of the restriction must include the following matters:</p> <p>a) Restriction against clearing.</p> <p>b) Restriction against use of land in any way inconsistent with the maintenance of the EEC on the land.</p> <p>c) Restrictions on livestock grazing on the land.</p> <p>d) Obligation to fence the land.</p> <p>e) Obligation to control noxious weeds and pests on the land.</p> <p>A caveat acceptable to Muswellbrook Council, must be prepared and registered on the title of affected land, by Muswellbrook Coal Company at no cost to Council by 31 December 2018.</p>	Non Compliant	<p>2018 AEMR 2019 AEMR 2020 AEMR 2020 Biodiversity Offset Monitoring Report Certificate of Title Plan of Positive Covenant and Restriction on use of land within lot 62 DP752484 (n.d.)</p>	<p>The Certificate of Title (DP1272963) was sighted dated 29 June 2021 detailing registration of restriction has been placed on the title of the affected land.</p> <p>However it was registered outside the nominated timeframe.</p> <p>The Plan of Positive Covenant and Restriction on use of land within lot 62 DP752484 (sighted 20 December 2021) further detailed the caveat restrictions and requirements agreed by MSC for the vegetation offset area. The restrictions included:</p> <ul style="list-style-type: none"> • Clearing of native vegetation • The use of the land in any way which is inconsistent with the maintenance of the endangered ecological communities existing on the land; or • Livestock grazing <p>The Plan also detailed the owner must undertake activities to ensure noxious weeds and pest are minimised and to ensure the boundaries of the area is fenced with stock proof fencing.</p> <p>The vegetation offset area was not visited as part of the audit however upon review of recent monitoring reports and interviews on site the following was identified:</p> <ul style="list-style-type: none"> • No clearing has been undertaken during the audit period (B.York Per Coms) • No signs of vehicle access or presence of livestock were apparent during monitoring as noted in the 2020 AEMR, 2019 AEMR and 2018 AEMR. • Noxious weeds and pest have been managed appropriately with 2020 Biodiversity Offset Monitoring Report noting very minimal weed presence. Monitoring was missed in 2019 due to an oversight but was completed in 2020 and is undertaken every 3 years. <p>During the audit period it is evident the vegetation offset area has not been appropriately fenced as outlined in the conditions in the Plan of Positive Covenant and Restriction and Condition 20 (d) of this consent. It is noted some old fencing occurs along the southern and western boundary, however this does not match that of the offset boundary and does not extend around the entire site as identified to make up the vegetation offset area.</p> <p>It is recommended that MCC meet the obligation under this condition and the restriction placed on the title to have the land fenced to satisfy the requirements of this condition.</p>

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
Archaeology and Cultural Heritage Management				
21	Should the Applicant uncover artefacts during the construction/ development process, a Section 90 Aboriginal Heritage Impact Permit under the National Parks and Wildlife Act 1974 must be obtained from the Office of Environment and Heritage for any destruction, damage or harm (including removal) of any Aboriginal artefact or heritage site.	Compliant		B. York explained that given that mining operations are to be ceased by 2022, with no new areas being disturbed the risk of encountering Aboriginal items is considered very low. However, a stop work protocol is place in case of incidental finds.
Visual Amenity, Lighting and Landscaping				
22	<p>The Applicant must address visual amenity and landscaping issues for the development area to address relevant visual and landscaping issues associated with the development.</p> <p>The Applicant must:</p> <ul style="list-style-type: none"> • implement all reasonable and feasible measures to mitigate visual and offsite lighting impacts of the project; and • install new external lighting associated with the development in accordance with relevant Australian Standards including Australian Standards AS4282 (INT) 1997 – Control of Obtrusive Effects of outdoor lighting. <p>The Applicant must prepare a Visual Amenity, Lighting and Landscaping Management Plan for the development to the satisfaction of Council, and carry out the development in accordance with this plan. The Plan must:</p> <ul style="list-style-type: none"> - Identify the privately - owned residences that are likely to experience significant visual impact during the remainder of the project, and - Describe (in general terms) any additional mitigation measures that are planned to be implemented to reduce the visibility of the mine from these properties. - Describe (in general terms) the mitigation measures that are planned to minimise the visibility of fixed lighting and mobile lighting where possible from the mine on these properties. <p>Within 3 months of Council approving the Plan, the Applicant must advise all owners of privately- owned residences identified in the Plan as receiving significant visual impact, that they are entitled to additional appropriate mitigation measures to reduce the visibility of the mine from their properties.</p> <p>Upon receiving a written request from an owner of a privately- owned residence identified in the Plan, or upon receiving a reasonable direction from Council regarding any other privately – owned residence, the Applicant must implement additional visual impact mitigation measures (such as landscaping treatments or vegetation screens) in consultation with the landowner, and to the satisfaction of Council.</p> <p>These mitigation measures must be reasonable and feasible, and must be implemented in a reasonable time frame, to the satisfaction of Council.</p> <p>If within 3 months of receiving this request from the owner, the Applicant and the owner 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 Council for resolution.</p>	Compliant	Visual Amenity Lighting and Landscape Management Plan V5. Email Correspondence dating 02/11/2020	<p>A Visual Amenity Lighting and Landscape Management Plan was prepared for the development. The plan was approved by MSC on 22 June 2017 and was revised and approved by MSC on the 2 October 2020</p> <p>The plan specifies that “MCC will continue to employ measures to minimise the potential for visual related impacts on the nearest receptors by:</p> <ul style="list-style-type: none"> • undertaking rehabilitation progressively where possible; and • orientating lights away from sensitive receptors where practical. <p>Any new external lighting will be installed in accordance with the requirements of AS 4282 – Control of the Obtrusive Effects of Outdoor Lighting”.</p> <p>No new lighting has been installed since the approval of the Continuation of the Project in October 2016. (B.York Per Coms)</p> <p>No residential properties were identified in the plan as likely to receiver significant visual impact and no complaints have been received in relation to permanent visual impacts during the audit periods (B.York Per Coms)</p>

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
Bushfire Management Plan and other Fire Controls				
23	<p>The Applicant must:</p> <p>(a) make available to the Rural Fire Service and emergency services when required, personnel, water carts and trucks in cases of bushfire on the mine site; and</p> <p>(b) prepare a Bushfire Management Plan for the development area to the satisfaction of Council and the Rural Fire Service.</p>	Compliant	<p>Bushfire Management Plan V5</p> <p>MSC correspondence letter 30/11/2020</p> <p>MCC correspondence to RFS 28/7/2020</p>	<p>Refer to Section 6 of the Bushfire Management Plan. During the site inspection water carts were observed that could be used in case of a bushfire.</p> <p>Sighted approval revision letter from MSC dated 30 November 2020. Correspondence was sent to Rural fire Services on the 28 September 2020 for review but have not received a response.</p>
Water Management and Monitoring				
Discharge				
24	<p>Unless an EPL or the EPA authorises otherwise, the Applicant must ensure that all surface water discharges from the site comply with the:</p> <p>(a) Discharge limits (both volume and quality) set for the development in the EPL and;</p> <p>(b) Relevant provisions of the POEO Act or Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002</p>	Compliant	Annual Review 2018, 2019, 2020	No exceedances of discharge limits occurred during the audit period as MCC does not discharge from site.
Water Management Plan				
25	<p>The Applicant must prepare a Water Management Plan for the development to the satisfaction of Council, and carry out the development in accordance with this plan. The plan must be prepared in consultation with DPI Water and submitted to Council for approval and include:</p> <p>(a) Site Water Balance that:</p> <p>a. Includes details of:</p> <p>i. Sources and security of water supply, including contingency planning for future reporting periods</p> <p>ii. Water use and management on site;</p> <p>iii. Any offsite water transfers and discharges;</p> <p>iv. Reporting procedures, including the preparation of a site water balance for each AEMR reporting year; and</p> <p>b. Investigates and implements all reasonable and feasible measures to minimise water use on site;</p> <p>(b) Surface Water Management Plan, that includes:</p> <p>a. Detailed baseline (2016) data on surface water quality in the watercourses that could potentially be affected by the development</p> <p>b. a description of the water management system on site, including the:</p> <p>i. Clean water diversion systems;</p> <p>ii. Erosion and sediment controls (mine water system); and</p> <p>iii. Mine water management systems including water infusion for Spontaneous Combustion.</p> <p>c. plans, including design objectives and performance criteria, for:</p> <p>i. design and management of final voids;</p> <p>ii. design and management for the emplacement of coal reject materials;</p> <p>iii. reinstatement of drainage lines on the rehabilitated areas of the site; and</p> <p>iv. control of any potential water pollution from the rehabilitated areas of the site;</p> <p>d. performance criteria for the following, including trigger levels for investigating any potential adverse impacts associated with the development:</p> <p>i. surface water quality of Muscle Creek and Sandy Creek catchments; and</p>	Non-Compliant	<p>Water Management Plan (V5)</p> <p>Correspondence email from council 2 March 2018</p> <p>Consultation letter DPI water 6 June 2017</p>	<p>The most recent approved Water Management Plan V5 – was approved by MSC on 2 March 2018. The latest revision of the Water Management Plan V6 has not been approved by MSC.</p> <p>The plan includes a site water balance in Section 3 of the plan which adequately addresses the requirements of this condition. The calculated water balance for each reporting year is provided in Section 2.10 of the AEMR.</p> <p>The Water Management Plan (V5) was approved in March 2018 and the current version (V6) which is being used by site is not approved.</p> <p>Further it is understood that the Water Management Plan (V6) is currently under review with a further revision proposed (B.York Per Coms)</p> <p>It is recommended that MCC complete the review and revision of the Water Management Plan in consult with DPI Water and submit the revised plan to MSC for approval.</p> <p>Detailed baseline is included as Appendix 2 detailing baseline data for muscle creek.</p> <p>Section 4.1 of the Water Management Plan includes the Surface Water Management Plan which adequately addresses the requirements of this condition.</p> <p>Section 4.2 addresses all of the requirements relating to (c)</p> <p>Section 4.4 addresses all of the requirements relating to (d) and (e). Water quality trigger values is further discussed in section 4.5</p> <p>Section 5.2 addresses all the requirements relating to (f) it details the plan to respond to any exceedances of the performance criteria and mitigate and/or offset any adverse surface water impacts of the development.</p>

Condition Number	Condition	Compliance	Evidence	Evidence and Comments								
Air Quality, Blast, Noise Management and Monitoring												
Air Quality – Particulate Matter – Standards and Goals												
27	<p>The Applicant must ensure that all reasonable and feasible avoidance and mitigations measures are employed so that particulate matter emissions generated by the development do not cause exceedance of the relevant air quality criteria at a residence on privately owned land.</p> <p>The relevant air quality criteria for the development are contained in Table 1 and Table 2 below.</p> <p>Table 1. Long Term Particulate Matter Criteria</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10µg (PM₁₀)</td> <td>30ug/m³ (annual mean)</td> </tr> </tbody> </table> <p>Table 2. Short Term Particulate Matter Criteria</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate Matter <10µm (PM₁₀)</td> <td>50µg/m³ (24hr average)</td> </tr> </tbody> </table>	Pollutant	Criterion	Particulate matter < 10µg (PM ₁₀)	30ug/m ³ (annual mean)	Pollutant	Criterion	Particulate Matter <10µm (PM ₁₀)	50µg/m ³ (24hr average)	Compliant	2018 AEMR, 2019 AEMR, 2020 AEMR PM10 (Air Quality) Data 2018 November to November 2021	<p>During the audit period there have been no exceedances of the long term or short-term air quality criteria as a result of emissions of the development.</p> <p>A review of the 2018 AEMR identified there was six days during the reporting period where the 24-hour PM₁₀ results were above the 24-hour criteria of 50µg/m³. These days were in January, March and November 2018. The elevated levels were a result of regional dust events.</p> <p>In 2019 the AEMR identified there were 45 days during the reporting period where the 24-hour PM₁₀ results were above the 24-hour criteria of 50µg/m³ at the compliance-based monitoring locations. Each of these days has been investigated and they are all attributable to regional dust events or from bushfire smoke. The annual average PM₁₀ did not exceed the 30µg/m³ annual criteria during the reporting period.</p> <p>In 2020 the AEMR indicated there were 24 days during the reporting period where the 24-hour PM₁₀ results were above the 24-hour criteria of 50µg/m³ at the compliance-based monitoring locations. Each of these days has been investigated and they were also attributable to either regional dust events or from bushfire smoke and not directly attributable to MCC.</p> <p>A review of the 2021 PM₁₀ data has identified no exceedances in short term criteria.</p>
Pollutant	Criterion											
Particulate matter < 10µg (PM ₁₀)	30ug/m ³ (annual mean)											
Pollutant	Criterion											
Particulate Matter <10µm (PM ₁₀)	50µg/m ³ (24hr average)											
Air Quality – Gas Content – Health Guidelines and Goals												
28	<p>The Applicant must use reasonable and feasible measures to manage the development so that the atmospheric gas emissions generated by the development do not cause exceedance of the relevant air quality criteria at any residence on privately owned land.</p> <p>The relevant atmospheric air quality criteria for the development are contained in Table 3 of the development consent.</p> <p>Table 3. Atmospheric Gas Content Criteria</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td>Sulphur dioxide (SO₂)</td> <td>80 ppb (24hr average) 200 ppb (1hr average)</td> </tr> <tr> <td>Hydrogen Sulphide (H₂S)</td> <td>100 ppb (24hr average) 500 ppb (1hr average)</td> </tr> </tbody> </table> <p>Note:</p> <ul style="list-style-type: none"> Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources); Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, (but not Spontaneous Combustion within the mine) or any other activity agreed by Council The need for the applicant to monitor its compliance with the requirements in Table 3, pursuant to the Air Quality Management Plan and condition 30A of this development consent be waived in the future depending on Council's consideration of the outcomes of the EPA's current Environmental Study and any changes would be by agreement with Council. 	Pollutant	Criterion	Sulphur dioxide (SO ₂)	80 ppb (24hr average) 200 ppb (1hr average)	Hydrogen Sulphide (H ₂ S)	100 ppb (24hr average) 500 ppb (1hr average)	Compliant	2018 AEMR 2019 AEMR 2020 AEMR AECOM Monthly Reports Nov 2018 – Nov 2020	<p>Gas monitoring for sulphur dioxide (SO₂) and hydrogen sulphide (H₂S) was conducted across three sites and reportedly monthly throughout the audit period until being ceased in November 2020 following MSC approval (sighted minutes of September 2020 Council Meeting). MSC approved to decommission one site (Muscle Creek Fire Station air quality monitor).</p> <p>A review of the 2018 AEMR ,2019 AEMR and 2020 AEMR identified that there were no results above these criteria during the reporting period.</p> <p>It was noted the monitor at Site 10 was not working properly and failed to collect data during September 2019, October 2019, January 2020 and February 2020.</p>		
Pollutant	Criterion											
Sulphur dioxide (SO ₂)	80 ppb (24hr average) 200 ppb (1hr average)											
Hydrogen Sulphide (H ₂ S)	100 ppb (24hr average) 500 ppb (1hr average)											
Air Quality – Management												
29	<p>The Applicant must prepare a detailed Air Quality Management Plan for the development in consultation with the EPA, to the satisfaction of Council, and carry out the development in accordance with this plan.</p> <p>This plan must include, but not be limited to the following matters:</p> <p>(i) the identification of properties which may be affected by dust generated by the mine in excess of the criteria detailed above;</p> <p>(ii) specifications of the procedures for the dust monitoring program and atmospheric gas assessment for the management of the mine and for the purpose of undertaking independent investigations;</p> <p>(iii) outline the procedure to notify property owners and occupiers as identified by monitoring as likely to be affected by dust generated by the mine in excess of the criteria detailed above;</p> <p>(iv) mitigation measures to be employed to minimise dust and/or atmospheric</p>	Compliant	Air Quality Management Plan	<p>An Air Quality Management Plan was prepared for the development. Sighted correspondence with the EPA in Appendix 1 of the plan (dated 17 January 2017) noting that the EPA did not want to review the plan. The plan was revised with sighted correspondence with MSC (dated 02 December 2020) approving the plan (attached in Appendix 1 of the plan).</p> <p>The Air Quality Management Plan was reviewed as part of this audit and was found to contain the requirements of this condition.</p> <p>Addressed in Section 3.4</p> <p>Addressed in Section 4.0</p> <p>Addressed in Section 7.0</p> <p>Addressed in Section 3.0</p>								

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
	<p>gas emissions during the operation phase (this plan can refer to the Spontaneous Combustion Management Plan for atmospheric gas). This should include proactive/predictive and reactive mitigation measures to be employed to minimise dust and/or atmospheric gas emissions including visible dust emanating from the site;</p> <p>(v) unsealed roads are to be managed to minimise the generation of fugitive dust.</p> <p>(vi) the Applicant must ensure the prompt and effective rehabilitation of all disturbed areas of the application area following the completion of mining and associated activities in that area to minimise the generation of wind-blown dust;</p> <p>(vii) the use of the existing protocol for handling dust and atmospheric gas complaints that include recording, reporting and acting on complaints;</p> <p>(viii) details of locations and frequency of existing monitoring;</p> <p>(ix) as far as practicable details of the interrelationships of this plan with the Air Quality Management Plans with other mining operations in the vicinity;</p>			<p>Addressed in Section 3.1. During the site inspection internal haul roads were observed to be well maintained and water carts were observed to be in operation.</p> <p>Addressed in Section 3.1. Progressive rehabilitation is occurring on site, however only small parcels of land have been available to undertake rehabilitation during the audit period.</p> <p>Addressed in Section 5</p> <p>Addressed in Section 4</p> <p>Addressed in Section 6</p>
Air Quality – Monitoring – Dust				
30	<p>(a) The Applicant must:</p> <p>(i) Operate in real time air quality monitors representative of residence on privately owned land to the north and south of the development. The locations of all the monitors must be identified in the Air Quality Management Plan as approved by Council.</p> <p>(ii) monitor and report against criteria in Tables 1 and 2 for the monitors located to be representative of nearby residences on privately owned land in accordance with the Air Quality Management Plan. The results of this monitoring and reporting are to be incorporated into the AEMR;</p> <p>(iii) Include in the AEMR a summary of the performance of the control measures and of the monitoring system against the criteria outlined in Tables 1 and 2. The assessment locations and the methodology of assessment is to be identified in the Air Quality Management Plan, and</p> <p>(b) In the event that a landowner or occupier of a residence on privately owned land considers that dust from the development at his/her dwelling is in excess of the criteria detailed in Tables 1 or 2 of the consent, and Council is satisfied after adequate examination of the relevant facts, that an investigation is required, the Applicant must upon the receipt of a written request from Council:</p> <p>(i) consult with the landowner or occupant affected to determine his/her concerns;</p> <p>(ii) commission an independent dust impact assessment at the privately owned residence, and provide a report to Council. Where elevated levels of dust in excess of the criteria in Tables 1 and 2 are identified, and the independent expert is of the opinion that the Applicant’s activities have materially contributed to the exceedance, the independent dust assessment is to include suggested remedial actions;</p> <p>(iii) modify the mining activity or take other steps in accordance with the Air Quality Management Plan, or independent dust assessment, if exceedances are demonstrated by the independent investigations, engaged by the Applicant, to materially result in part from the development related activity. This may include:</p>	Compliant	AEMR 2018,2019,2020 Air Quality Management Plan	<p>Addressed in Section 4.1 of the Air Quality Management Plan</p> <p>Results have been incorporated into the AEHMR. Refer to Section 3.3 of the AEMR which reports against the relevant criteria in accordance with the Air Quality Management Plan.</p> <p>Refer to Section 3.3 of the AEMR which provides a summary of the performance of control measures and the monitoring system for that reporting period.</p> <p>Not triggered during the audit period. (B. York Per Coms)</p>

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
	<p>1) introduction of additional controls, either of dust generation from individual sources on the site or on site operations, or modify operations to attempt to ensure that the dust criteria are achieved; and/or;</p> <p>2) negotiate, as far as reasonably practicable, an agreement with the landowner or provide such forms of benefit or amelioration of the impact of dust as may be agreed between the parties as providing acceptable compensation for the dust levels experienced.</p> <p>(iv) conduct follow up investigation(s) to the satisfaction of the Council, where necessary. Note: Appendix E of the determination outlines the process for mitigation measures</p> <p>(c) If the independent dust investigations in sub-clause (b) above confirm that dust levels from the Project alone are in excess of the relevant criteria detailed in Tables 1 and 2 of the consent, and if the measures in sub-clause (b)(iii) (1) above do not reduce the dust levels, from the Project alone, below the criteria detailed in the consent, or if agreement in accordance with sub-clause (b)(iii) (2) above cannot be reached, the Applicant must at the written request of the owner acquire the relevant property. Acquisition shall be generally in accordance with the procedures set out in Condition 49 of this consent.</p> <p>(d) Further independent investigation(s) shall cease if Council is satisfied that the relevant criteria detailed in the consent are not being exceeded and are unlikely to be exceeded in the future.</p>			<p>As above.</p> <p>As above.</p>
Air Quality – Monitoring – Gas				
30A	<p>(a) The Applicant must:</p> <p>(i) Operate gas assessment equipment representative of non-mine owned residents to the north and south of the development. The locations of the atmospheric gas assessment equipment must be identified in the Air Quality Management Plan.</p> <p>(ii) Include in the AEMR a summary of the performance of the control measures and of the monitoring system, Assess the Atmospheric Gas Content against the requirements outlined in Table 3. The assessment locations and the methodology of assessment is to be identified in the Air Quality Management Plan, and;</p> <p>(iii) Should the results of the Atmospheric Gas Content criterion outlined in Table 3 be exceeded, the Applicant is to immediately advise Council.</p> <p>(b) In the event that a landowner or occupier of a residence on privately owned land considers that atmospheric gas from the development at his/her dwelling is in excess of the criteria detailed in Table 3 of the consent, and Council is satisfied that an investigation is warranted, the Applicant must upon the receipt of a written request from Council:</p> <p>(i) consult with the landowner or occupant affected to determine his/her concerns;</p> <p>(ii) commission a relevant expert, approved by Council, to conduct an independent atmospheric gas impact assessment at the residence, and provide a report to Council. Where levels of atmospheric gas in excess of the criteria in Table 3 are identified, and the independent expert is of the opinion that the Applicant’s activities have caused the exceedances, the Applicant must:</p> <p>a. modify the mining activity or take such other steps as are reasonably necessary to ensure that the Applicant operates so as not to cause or partly cause the criteria identified in Table 3 to be exceeded at the residence.</p> <p>b. conduct follow up investigation(s) to the satisfaction of the Council, where</p>	Compliant	<p>Air Quality Management Plan</p> <p>AEMR 2018 AEMR 2019 AEMR 2020</p> <p>Complaints Register November 2018 - November 2021</p>	<p>Refer to the following documents:</p> <p>(i) The requirements for the operation of gas assessment equipment and locations are provided in Section 4.2 of the Air Quality Management Plan.</p> <p>(ii) Refer to Section 3.3 of the AEMR contains a summary of the performance of the control measures and monitoring system for atmospheric gas for the reporting period. (iii) No exceedances have occurred during the audit period.</p> <p>Not triggered during the audit period (B. York Per Coms)</p>

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
	necessary.			
Air Quality – Spontaneous Combustion				
31	<p>The Applicant must incorporate current best practice approaches to minimizing the occurrence of spontaneous combustion and managing any spontaneous combustion that occurs within the development area.</p> <p>The Applicant must prepare a detailed Spontaneous Combustion Management Plan to the satisfaction of Council, and carry out the development in accordance with this plan. The plan must:</p> <p>(a) Be endorsed by a suitably qualified expert/s whose appointment/s have been approved by Council;</p> <p>(b) Describe what measures are to be undertaken to minimize the occurrence of spontaneous combustion. Should spontaneous combustion occur, describe what methods would be employed to extinguish, or reduce the size and duration of the outbreak. This is to include details of the times, areas, locations etc. that will trigger actions, and criteria provided to indicate success or further works being required.</p> <p>The plan must break these activities up to be specific to the following areas:</p> <p>i. The highwall and existing known U/G mine workings in the No.1 pit, ii. The overburden/interburden removal and coal removal in the No.1 pit, iii. Active and recent emplacement areas within the No.1 pit, iv. The No.2 pit, v. Coal emplacement and storage areas, vi. Elsewhere within the mine disturbance area.</p> <p>(c) Define what constitutes a spontaneous combustion incident, and includes a protocol for notifying Council and any other relevant stakeholders of spontaneous combustion incidents;</p> <p>(d) Define what will trigger a review of the Spontaneous Combustion Management Plan. This is to include a Trigger Action Response Plan resulting from a spontaneous combustion incident that has as one of its outcomes a review of this Management Plan.</p>	Compliant	Spontaneous Combustion Management Plan	<p>A Spontaneous Combustion Management Plan has been prepared for the development and was revised during the audit period to reflect the recommendations as a result of the Spontaneous Combustion Study. The plan was approved by MSC on 30 November 2020 (Sighted approval letter 12 November 2020). The Spontaneous Combustion Management Plan was found to adequately address the requirements of this condition.</p> <p>Confirmed and verified by previous audit.</p> <p>Addressed in Section 8.0</p> <p>Addressed in Section 10.0</p> <p>Addressed in Section 12.0</p>
Blasting Management and Monitoring				
Blasting criteria and limits				
32	<p>(a) Time of blasting Blasting operations on the premises must only take place between 9:00am and 5.00pm Monday to Friday inclusive, unless permission is granted by Council where special circumstances related to the safety of the mine requires a blast to be initiated outside these hours.</p> <p>(b) Overpressure The overpressure level from blasting operations on the premises must not:</p> <p>(i) Exceed 115dB (Linear Peak) for more than 5% of the total number of blasts over a period of 12 months when measured at any residence on privately owned land or noise sensitive locations (such as a school or hospital); and</p> <p>(ii) Exceed 120dB (Linear Peak) at any time, when measured at any residence on privately owned land or noise sensitive location (such as a school or hospital).</p>	Compliant	Blast Management Plan Blast Data 2018, 2019, 2020 and 2020 (Jan – Oct)	<p>A Blast Management Plan has been prepared for the development and approved by MSC on 11 May 2017 and revised on the 26 May 2020. Section 4.5 of the plan specifies that “All routine blasts are to occur between the hours of 9:00am to 5:00pm Monday to Friday”.</p> <p>No blasts occurred outside of permitted hours during the 2018, 2019, 2020 and 2021 reporting periods.</p> <p>There have been no exceedances of blast overpressure criteria that have exceeded 115dB (Linear Peak) for more than 5% of the total number of blasts over a period of 12 months during the audit period. During the 2018, 2019, 2020 and 2021 reporting period some blasts did have a result between 115dB and 120dB during the reporting period but were less than 5% of total number of blasts.</p>

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
	<p>(c) Ground vibration (ppv) Ground vibration peak particle velocity from the blasting operations at the premises must not:</p> <ul style="list-style-type: none"> (i) Exceed 5mm/s for more than 5% of the total number of blasts over a period of 12 months when measured at any residence on privately owned land or noise sensitive locations (such as a school or hospital); and (ii) Exceed 10mm/s at any time, when measured at any residence on privately owned land or noise sensitive location (such as a school or hospital) <p>The overpressure and ground vibration limits above do not apply if the Applicant has a written agreement with the relevant owner(s) of these residences to generate higher blast levels, and Council has been advised in writing of the terms of the agreement. The blasting limits above do not apply to residences owned by the Applicant.</p> <p>(d) The Applicant must investigate any blast ground vibration/air overpressure concerns associated with residential buildings which occur as a result of blasting at the mine in relation to the standards in the consent. Should such an investigation be necessary the Applicant shall advise Council the result of such investigation and any proposed preventive/remedial measures.</p>			<p>There have been no exceedances of ground vibration criteria during the audit period.</p> <p>No formal requests were received during the audit period</p>
Blasting/Vibration Management				
33	<p>(a) The Applicant must prepare and implement an updated Blast Management Plan, in consultation with EPA and DRE, to the satisfaction of Council. This plan must include, but not be limited to, the following matters:</p> <ul style="list-style-type: none"> (i) demonstration of consistency in compliance with blasting criteria at the existing mining operation (ii) compliance blasting criteria; (iii) mitigation measures, such as, adverse weather conditions; (iv) monitoring methods and program in accordance with blast monitoring and inspection conditions; (v) measures to be undertaken to demonstrate that the development is achieving best practice applicable to the development in minimising air blast overpressure, ground vibration levels, fumes and odours from blasting activities; (vi) measures to protect underground utilities (e.g.: rising mains, subsurface telecommunication and electric cables, irrigation lines) and livestock on non-mine owned land; (vii) measures to protect surface infrastructure where relevant, such as dams, rail infrastructure and power poles; (viii) measures to consider the blasting activities from other neighbouring mines. This shall include details of the proposed measures to ensure that cumulative blast related impacts are managed, such as through consultation with the other mines to co-ordinate blasting activities; (ix) procedures for the investigation of blast related complaints from the development, in consultation with other mines in the event of cumulative related impacts <p>(x) procedures for the notification of occupiers of buildings and residences prior to detonation of each blast;</p> <p>(xi) measures to ensure no damage by flyrock to people, property, livestock and powerlines;</p>	Compliant	Blast Management Plan	<p>A Blast Management Plan has been prepared for the development. The plan was revised on 28 May 2020 with sighted correspondence with the EPA (n.d.) and Resource Regulator (28 April 2020) regarding the review of the plan. Sighted approval letter from MSC approving the revised plan on 26 May 2020.</p> <p>Addressed in Section 3.0</p> <p>Addressed in Section 3.0</p> <p>Addressed in Section 4.3</p> <p>Addressed in Sections 4.9</p> <p>Addressed in Section 4.3</p> <p>Addressed in Section 4.1 and 4.2</p> <p>Addressed in Section 4.1</p> <p>Addressed in Section 4.6</p> <p>Addressed in Section 5.0</p> <p>Addressed in Section 4.6</p> <p>Addressed in Section 4.3</p>

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
	<p>(xii) location of blast monitors to assess blasting within the development; and</p> <p>(xiii) When blasting is no longer required for this development, the management plan will need to be revised to suspend requirements of Blast Monitoring (Cond. 34) and Blast Management Plan requirements listed in this consent. The Applicant must implement the approved Blast Management Plan.</p> <p>(b) The Applicant must, as a minimum, advise occupiers of buildings and residences, unless otherwise requested by the occupier, in the North Muswellbrook, Sandy Creek Road and other areas to the satisfaction of Council of future blasting events through a community information telephone hotline and the advertisement and promotion of the hotline. The hotline shall be at no cost to the caller.</p>		<p>30 June 2018 Fair Fax Media Invoice (Hunter Valley News and Muswellbrook Chronicle)</p> <p>30 Sept 2018 Fair Fax Media Invoice (Hunter Valley News and Muswellbrook Chronicle)</p> <p>31 Dec 2018 Fair Fax Media Invoice (Hunter Valley News and Muswellbrook Chronicle)</p> <p>31 March Fair Fax Media Invoice (Hunter Valley News and Muswellbrook Chronicle)</p> <p>30 June 2019 Fair Fax Media Invoice (Hunter Valley News and Muswellbrook Chronicle)</p> <p>31 Dec 2019 Fair Fax Media Invoice (Hunter Valley News and Muswellbrook Chronicle)</p> <p>31 March 2020 Fair Fax Media Invoice (Hunter Valley News and Muswellbrook Chronicle)</p> <p>31 May 2021 Fair Fax Media Invoice (Hunter Valley News)</p> <p>31 August 2021 Fair Fax Media Invoice (Hunter Valley News)</p>	<p>Addressed in Section 4.9</p> <p>Addressed in Section 9.0</p> <p>Muswellbrook Coal Company operates a 24 hour Blasting Information Hotline Number 1800 772 799 This is advertised in the Muswellbrook Chronicle and Hunter Valley News. Publishing in the Hunter Valley News ceased for a period of time due to the COVID pandemic while publishing in the Muswellbrook Chronicle ceased in 2021 as the news outlet had been shut down (B.York Per Coms). Sighted Fairfax Media Invoices dated 31 December 2018, 31 March 2019, 30 June 2019, 31 December 2019 and 31 March 2020 and 31 August 2021.</p> <p>Future blasting events are also advertised on the MCC website: https://www.idemitsu.com.au/mining/operations/muswellbrook-coal/approvals-plans-reports/</p>
	<p>(c) The Applicant must respond to complaints regarding blasting in accordance with its Environmental Management Strategy.</p>			<p>Blast related complaints have been recorded, responded to and closed out in accordance with the EMS during the audit period. MCC maintains a register of community complaints which is available on the website. MCC also reports on the number and types of complaints received during each reporting period in the AEMR.</p>

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34	<p>(a) The Applicant must monitor ground vibration and air blast overpressure of all blasts at locations in accordance with the Blast Management Plan;</p> <p>(b) Ground vibration or airblast overpressure is to be monitored at the relevant noise sensitive sites (eg. Residences on privately owned land, hospitals, schools etc), selected in consultation with the EPA.</p> <p>(c) The Applicant must document the date, wind speed and direction, weather conditions, atmospheric conditions including cloud cover, location of blast and the quantity of explosive used for each blast.</p>	Compliant	<p>Blast Management Plan</p> <p>Blasting checklists dated 30 April, 13 July 2020. 6 July 2021</p>	<p>Addressed in Section 4.9 of the Blast Management Plan</p> <p>Addressed in Section 4.9 of the Blast Management Plan</p> <p>MCC utilises a daily weather forecasting system to assist with identifying the weather conditions at the time of blasting. This involves a summary daily email to personnel on site and access to a webpage for further detail. Prior to granting approval for the initiation of a blast, the Blast Controller shall complete the pre-blast section of the Blasting Environmental Checklist. This checklist includes the recording of date, wind speed and direction, temperature inversion, cloud cover, location of the blast and the MIC of the blast.</p> <p>Blasting checklists dated 30 April 2020, 13 July 2020 and 06 July 2021 were reviewed as part of this audit and recorded all aspects required by this condition.</p>																																																																																																													
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35	<p>Where temperature inversion conditions of Class F or higher are in place, as measured by the sites Meteorological Station, the following changes to the mining operations are to occur during the night time period:</p> <p>i. Dozers are to be operated in first gear forward and reverse only (emergencies excepted)</p> <p>ii. The maximum of 3 haul trucks can be loaded and haul into the Open Cut No.2 at any one time.</p>	Compliant	Complaints register November 2018- November 2021	<p>This condition restricts the operation of dozers to first gear only and a maximum of three haul trucks can be loaded and haul into Open Cut 2 when temperature inversions of Class F or higher are present.</p> <p>No incidents or complaints within the audit period were recorded in regard to excess operation of haul truck or the operation of dozers within Open Cut 2.</p>																																																																																																													
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36	<p>Table 4 Noise Limits (dB(A))</p> <table border="1"> <thead> <tr> <th rowspan="2">Location</th> <th>Day</th> <th>Evening</th> <th colspan="2">Night</th> </tr> <tr> <th>L_{Aeq}(15 minute)</th> <th>L_{Aeq}(15 minute)</th> <th>L_{Aeq}(15 minute)</th> <th>L_A(1 minute)</th> </tr> </thead> <tbody> <tr> <td>R1, R2, R3, R4, R17, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R37, R38, R39.</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td>R5</td> <td>38</td> <td>38</td> <td>38</td> <td>45</td> </tr> <tr> <td>R7</td> <td>38</td> <td>38</td> <td>38</td> <td>45</td> </tr> <tr> <td>R11</td> <td>39</td> <td>39</td> <td>39</td> <td>45</td> </tr> <tr> <td>R12</td> <td>39</td> <td>39</td> <td>39</td> <td>45</td> </tr> <tr> <td>R13</td> <td>41</td> <td>41</td> <td>41</td> <td>45</td> </tr> <tr> <td>R14</td> <td>38</td> <td>38</td> <td>38</td> <td>45</td> </tr> <tr> <td>R15</td> <td>37</td> <td>37</td> <td>37</td> <td>45</td> </tr> <tr> <td>R16</td> <td>38</td> <td>38</td> <td>38</td> <td>45</td> </tr> <tr> <td>R18</td> <td>45</td> <td>38</td> <td>37</td> <td>47</td> </tr> <tr> <td>R20</td> <td>45</td> <td>38</td> <td>37</td> <td>47</td> </tr> <tr> <td>R21</td> <td>37</td> <td>37</td> <td>37</td> <td>45</td> </tr> <tr> <td>R22</td> <td>39</td> <td>39</td> <td>39</td> <td>45</td> </tr> <tr> <td>R23</td> <td>39</td> <td>39</td> <td>39</td> <td>45</td> </tr> <tr> <td>R24</td> <td>40</td> <td>40</td> <td>40</td> <td>45</td> </tr> <tr> <td>R25</td> <td>42</td> <td>42</td> <td>42</td> <td>45</td> </tr> <tr> <td>R36</td> <td>38</td> <td>38</td> <td>38</td> <td>45</td> </tr> <tr> <td>R40</td> <td>42</td> <td>42</td> <td>42</td> <td>45</td> </tr> <tr> <td>R41</td> <td>42</td> <td>42</td> <td>42</td> <td>45</td> </tr> <tr> <td>R42</td> <td>40</td> <td>40</td> <td>40</td> <td>45</td> </tr> </tbody> </table> <p>The limits in the noise Table 4 in consent do not apply if the Applicant has a written agreement with the relevant owner(s) of these residences to generate higher noise levels, and Council has been advised in writing of the terms of this agreement. The limits in the noise table above do not apply to residences owned by the Applicant.</p>	Location	Day	Evening	Night		L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _A (1 minute)	R1, R2, R3, R4, R17, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R37, R38, R39.	35	35	35	45	R5	38	38	38	45	R7	38	38	38	45	R11	39	39	39	45	R12	39	39	39	45	R13	41	41	41	45	R14	38	38	38	45	R15	37	37	37	45	R16	38	38	38	45	R18	45	38	37	47	R20	45	38	37	47	R21	37	37	37	45	R22	39	39	39	45	R23	39	39	39	45	R24	40	40	40	45	R25	42	42	42	45	R36	38	38	38	45	R40	42	42	42	45	R41	42	42	42	45	R42	40	40	40	45	Noted		
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	<p>iii. Stability category G temperature inversion conditions.</p> <p>Determination of Meteorological Conditions</p> <p>Except for wind speed at microphone height, the data to be used for determining meteorological conditions must be that recorded by the meteorological station located on site.</p> <p>Compliance monitoring</p> <ul style="list-style-type: none"> • Attended monitoring must be used to evaluate compliance with the relevant conditions of this consent; • During the period in which mining operations continue, this monitoring must be carried out at least 12 times a year, by an independent noise consultant, unless Council agrees otherwise; • Unless otherwise agreed by Council, this monitoring must be carried out in accordance with the relevant requirements for reviewing performance set out in the NSW Industrial Noise Policy (as amended from time to time) or an equivalent NSW Government noise policy, in particularly the requirements relating to: <ul style="list-style-type: none"> • Monitoring locations for the collection of representative noise data; • Meteorological conditions during which collections of data is not appropriate; • Equipment used to collect noise data, and conformance with Australian Standards relevant to such equipment; and • Modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors, apart from adjustments for: <ul style="list-style-type: none"> i. Duration; or ii. Low frequency noise, where it is demonstrated that the site contributed dBC – dBA noise difference of greater than 15dBA is caused by distance attenuation only. 			
Noise Management				
39	<p>The Applicant must prepare and implement a Noise Management Plan for the development, in consultation with EPA and to the satisfaction of Council. The plan must:</p> <ul style="list-style-type: none"> (i) Demonstrate consistency in complying with noise criteria limits at the existing Applicants operation; (ii) Provide a diagram indicating the location of all noise monitoring locations; (iii) include details of the noise investigations conducted at monthly intervals (unless otherwise agreed by Council) by an independent noise consultant to evaluate, assess and report the La eq (15 minute) and La1(1 minute) noise emission levels due to the normal operations of the development; (iv) provide details regarding operating configuration, determining survey intervals, weather conditions and seasonal variations, selecting variations, locations, periods and times of measurements; 	Compliant	Noise Management Plan EPA Consultation letter Council Approval Email	<p>A Noise Management Plan has been prepared for the development. The plan was revised in consultation with EPA (sighted 21 October 2020) and approved by MSC on the 30 November 2020.</p> <p>The Noise Management Plan was found to adequately address the requirements of this condition.</p> <p>Addressed in Section 4.1 in the Noise Management Plan and is also reported annually in the AEMR and Annual Return.</p> <p>Addressed in Section 4.1</p> <p>Addressed in Section 4.1</p> <p>Addressed in Section 4.1</p>

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
	(v) detail management measures where the target noise level criteria of this consent are predicted to be exceeded, or are exceeded during Mining Operations. These measures must include but not be limited to: * The selection of representative monitoring locations within the community must be carried out in consultation with Council; * prompt response to any community issues of concern; * refinement of onsite noise mitigation measures and mine operating procedures where practical; * discussions with relevant property holders to assess concerns; * consideration of acoustical mitigation at receivers; and * consideration of negotiated agreements with property owners.			Addressed in Section 4.1 Addressed in Section 5.0 Addressed in Section 3.2 Addressed in Section 8.0 Addressed in Section 8.0 Addressed in Section 8.0
	(vi) outline measures to reduce the impact of intermittent, low frequency and tonal noise (including truck reversing alarms); (vii) survey and investigate noise reduction measures from plant and equipment annually, subject to noise monitoring results and/or complaints received, and report in the AEMR; (viii) specify the procedures for a noise monitoring program for the purpose of undertaking independent noise investigations; (ix) outline the procedure to notify property owners and occupiers likely to be affected by noise from the operations; (x) maintain a protocol for handling noise complaints that include recording, reporting and acting on complaints, particularly where complaints are received and it is demonstrated noise levels are in excess of the criteria contained in this consent; (xi) as far as practicable, details of the interrelationship of this plan with the noise management plan for other mines in the vicinity; and (xii) accommodate for revised noise monitoring and management requirements once mining ceases and the closure and final rehabilitation process commences.			Addressed in Section 3.2 Addressed in Section 4.2 Addressed in Section 8.0 Addressed in Section 3.1 Addressed in Section 5.0 Addressed in Section 6.2 Addressed in Section 4.1
Request for independent monitoring and acquisition				
40	(a) Monitoring and Management In the event that a landowner of a non-mine owned property considers that noise from the development, at their residence, is in excess of the noise level criteria listed in Table 4 (being an owner who has not earlier entered into an agreement with the applicant to exceed their noise levels) and Council is satisfied that an investigation is required, the Applicant must upon the receipt of a written request from Council: (i) consult with the owner affected to determine their concerns; (ii) make arrangements for, and bear the costs of, following consultation as far as reasonably practicable with other mine operations in the vicinity where necessary, appropriate independent noise investigations in accordance with the Noise Management Plan to the satisfaction of Council, to quantify the impact and determine the source of the effect and the contribution of the Project to the effect. The location, duration and timing of these noise assessments is to be in accordance with the Industrial Noise Policy or its replacement; (iii) modify the mining activity in accordance with a noise reduction plan prepared as part of the Noise Management Plan, if repeated exceedances are demonstrated by the investigation to result in part from the mine related activity. This must include: * introduction of additional controls, either on noise emission from individual	Not Triggered	Complaints register 2018-2021	There have been no events during the audit period that a landowner of a non-mine owned property considers that noise from the development, at their residence, is in excess of the noise level criteria listed in Table 4 (B. York Per Coms).

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
	<p>sources on the site or on site operations or modification to operations, to ensure that the noise criteria detailed in Table 4 is achieved by reasonable and feasible measures, or;</p> <p>* seek agreement of the landowner, and in the case of cumulative impacts with the other relevant mines/ industrial operations in the area and the landowner, to provide such other forms of benefit or amelioration of the impacts of noise as may be agreed between the parties as providing acceptable compensation for the noise levels experienced.</p> <p>(iv) conduct follow up investigations to the satisfaction of Council, where necessary. If necessary, the follow up investigation should be conducted 3 months after the initial investigation to give the Applicant time to implement the recommended noise control.</p> <p>Note: Appendix E of the determination outlines the process for mitigation measures</p>			
	<p>(b) Acquisition</p> <p>(i) If the independent noise investigation(s) in (a) above confirms that the noise acquisition criteria detailed in Table 5 is being repeatedly exceeded by the development alone, and the measures detailed in the consent do not reduce the levels below this criteria, the Applicant must at the written request of the landowner acquire the relevant property. Acquisition shall be in accordance with the procedures set out in the consent.</p> <p>(ii) If the independent noise investigations confirm that the noise acquisition criteria is being repeatedly exceeded as a result of cumulative impacts, including a contribution from the development, the Applicant must enter into consultation with neighbouring mines for the purchase of the affected property in accordance with the Acquisition procedure set out in the consent</p> <p>(c) If continued complaints and noise investigation confirm that the noise criteria is being exceeded as a result of the contribution from the development, but are less than the noise acquisition criteria, the Applicant must negotiate with the landowner until a resolution to the satisfaction of Council is reached.</p> <p>(d) If a landowner disputes any noise mitigation or other measures proposed by the Applicant in accordance with sub-clause (a) above, the matter shall be referred by either the Applicant or landowner to Council. Where possible the principles of the DP&E's Voluntary Land Acquisition and Mitigation Policy will apply. If the matter cannot be resolved within 21 days, the matter shall be referred to the Independent Dispute Resolution Process.</p> <p>(e) Further independent investigations shall cease if Council is satisfied that the relevant criterion in Condition 6.4.2 (a) is not being exceeded and are unlikely to be exceeded in the future.</p> <p>(f) The Applicant is to pay the full costs incurred in the monitoring, assessment, mitigation or acquisition costs to be implemented, if they apply.</p>			

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
Monitoring/Auditing				
Third Party Monitoring/Auditing				
41	<p>(a) Independent Environmental Auditing Every three years from the date of this consent until completion of activity in the application area, or as otherwise agreed by Council, the Applicant must conduct an environmental audit of the mining and infrastructure areas of the development. Copies of the report shall be submitted by the Applicant to Council, EPA, DRE, OEHL, DPI Water and the CCC within two weeks of the report's completion for comment.</p> <p>(b) The audit must: i. assess compliance with the requirements of this consent, the EPL, mining leases and water licences; ii. include consultation with Council, EPA, DRE and DPI – Water. iii. assess environmental performance of the development and whether it is complying with the management plans and the EMS; iv. review the effectiveness of the environmental management of the mine, including any mitigation works; v. be carried out at the Applicant's expense; and vi. be conducted by a duly qualified independent person or team whose appointment has been endorsed by Council.</p> <p>(c) Council may, after reviewing the report and considering any submission made by the relevant government agencies, CCC and Applicant on the report, notify the Applicant of any requirements with regard to any recommendations in the report. The Applicant shall comply with any reasonable requirements within such time as Council may require. Note: Council may agree to a request from the Applicant that the Independent Environmental Audit requirement under this condition be integrated with similar audits required in accordance with other licenses and approvals applicable to MCC</p>	Compliant	Correspondence to MSC, EPA, DRE, OEHL, DPI Water and CCC dated 25/1/2019	<p>This Independent Environmental Audit satisfies part of the requirements of this condition. The audit covered a 3-year period from the end of the previous audit up until 15 November 2021.</p> <p>MCC have issued the 2018 Independent Environmental Audit Report to MSC, EPA, DRE, OEHL, DPI Water and CCC within two weeks of the report's completion for comment. Correspondence was sighted dating 25 January 2019.</p> <p>i. Environmental Performance of the development was assessed against development Consent Conditions, EPL conditions, Mining Lease conditions and water licences conditions ii. Consultation was undertaken with Muswellbrook Council, EPA, BCD, RR, CCC and NRAR (refer Section 2.2 of the main audit report) iii. A review was completed of all relevant strategies / plans / programs for adequacy as per Conditions 14, 17, 18, 19, 22, 23, 25, 29, 33 and 39 iv. Measures and/or actions to improve environmental performance at MCC. Refer to Section 6.3 of the main audit report for a discussion of environmental performance during the audit period. v. The audit was commissioned and paid for by MCC vi. Daniel Sullivan (Lead Auditor) and Joshua Wheatley (Auditor) were granted MSC approval to conduct the Independent Environmental Audit on 30 August 2021.</p> <p>Noted</p>
Reporting				
Annual Environmental Management Report (AEMR)				
42	<p>(a) The Applicant must, throughout the mining operations and for five years after the completion of mining in the application area (or as otherwise agreed by Council), prepare and submit an Annual Environmental Management Report (AEMR) to the satisfaction of Council and DRE. The AEMR must review the performance of the mine against the Environmental Management Strategy and the relevant, management plans, the conditions of this consent, and other licences and approvals relating to the mine. To enable ready comparison with the predictions made in the EIS, diagrams and tables, the report must include, the following matters: a detailed compliance review of the performance of the project against conditions of this consent and statutory approvals. From this review a table will be provided in the AEMR report that identifies any non-compliances over the last year, and describes what actions were (or are being) taken to ensure compliance.</p> <p>(i) assess the project against predictions made in the EIS and the terms and commitments in the documents listed in the consent</p> <p>(ii) a review of the effectiveness of the environmental management of the mine in terms of EPA, DRE, DPI Water and Council requirements</p>	Administrative non-compliance	2018 AEMR 2019 AEMR 2020 AEMR	<p>AEMRs as prepared and submitted for the audit period were reviewed including the 2018, 2019 and 2020 reporting periods. No approval letters were sighted during the audit period. It is noted all AEMR were submitted within their required timeframes (see below for details). AEMRs relevant to the audit period were reviewed and were found to adequately address the requirements of this condition.</p> <p>Addressed in Section 3.0</p> <p>Addressed in Section 3.0</p>

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
	<ul style="list-style-type: none"> (iii) review the results of environmental monitoring required under this consent or other approvals, including interpretations and discussion (iv) production and employment levels and any changes from the previous reporting year (v) identification of trends in monitoring results 			<p>Addressed in Section 3.0 and Section 5.0</p> <p>Employment levels are addressed in Sections 1.4 and production levels in Section 2.8</p> <p>Addressed in Section 5.0</p>
	<ul style="list-style-type: none"> (vi) a listing of any variations obtained to approvals applicable to the DA area during the reporting year (vii) the water budget for the year (viii) a summary report on the yearly review of activities to manage spontaneous combustion throughout the reporting year (ix) status of rehabilitation and revegetation works (x) environmental management targets and strategies for the next year, taking into account identified trends in monitoring results <p>(b) In preparing the AEMR, the Applicant must:</p> <ul style="list-style-type: none"> (i) consult with Council; (ii) comply with any reasonable requirements of Council or other relevant government agency; and (iii) ensure that the first report is completed and submitted within 3 months of the end of the reporting year, or at a date determined by Council in consultation with the DRE. <p>(c) The Applicant must ensure that copies of each AEMR are submitted to Council, DRE, DPI Water, EPA, OEH, and CCC, and made available for public information at Council within fourteen days of submission to these authorities.</p>		<p>Submission correspondence 2018 (11/02/2019), 2019 (27 March 2020 and 2020 (30 March 2021)</p> <p>Correspondence dated 11/03/2019 to DPI Water, EPA, Council, RR</p> <p>Correspondence dated 27/03/2020 to EPA, MSC, RR</p> <p>Correspondence dated 30/03/2021 to EPA, NRAR, RR, MSC,</p>	<p>Addressed in Section 1.0</p> <p>Addressed in Section 2.10</p> <p>Addressed in Section 3.16</p> <p>Addressed in Section 5.0</p> <p>Addressed in Section 6.0</p> <p>Sighted submission emails for the 2018 (dated 11 March 2019), 2019 (27 March 2020) and 2020 (30 March 2021) reporting periods to MSC and DRE. AEMRs are submitted in March annually.</p> <p>Sighted email correspondence with DPI Water, RR, EPA and MSC which provided copies of the 2018 AEMR dated 11 March 2019. No correspondence shows the 2018 AEMR being sent to the CCC and OEH.</p> <p>Sighted email correspondence with RR, EPA and MSC which provided copies of the 2019 AEMR dated 27 March 2020. No correspondence shows the 2019 AEMR being sent to the DPI Water, CCC and OEH.</p> <p>Sighted email correspondence with EPA, RR, NRAR and MSC which provided copies of the 2020 dated 30 March 2020. It is noted the 2020 AEMR was sent to the wrong email address (EPA) but was rectified on the 14 April 2021. No correspondence shows the 2020 AEMR being sent to the DPI Water, CCC and OEH.</p> <p>It is recommended that MCC provide correspondence to the agencies that were missed and advise them of the oversight to submit a copy of the AEMR's to them and make them aware that they are available on the MCC website (and provide them the link).</p> <p>MCC should ensure that the 2021 AEMR and all future AEMRs are provided to all agencies and the CCC as listed in Condition 42(c).</p>
Incident Reporting				
43	The Applicant must notify Council and any other relevant agencies immediately of any environmental incident. Within 7 days of the date of the incident, the Applicant shall provide Council and any relevant agencies with a detailed report on the incident, and such further reports as may be reasonably requested.	Not triggered	Annual Return 2018 Annual Return 2019 Annual Return 2020 AEMR 2018 AEMR 2019 AEMR 2020 Air Quality Data Nov 2018 – Nov 2021 Noise data November 2018-November 2021	No reportable environmental incidents have occurred during the audit period (As Per Coms B. York). Incident summary is maintained by MCC documenting all incidents from operations from financial to environmental departments.

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
Access to Information				
44	<p>Within 3 months of the approval of this Continuation Project Modification, the Applicant must:</p> <ul style="list-style-type: none"> • Make copies of the following publicly available on its website: • The EIS and subsequent environmental assessments, as listed in the consent; • Current statutory approvals for the development; • Approved strategies and plans required under the conditions of this consent; • A summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans ; • A complaints register, which is updated monthly; • Minutes of the CCC meetings; • The Annual Environmental Management Report (for the last 5 years); • Any Independent Environmental Audit of the development, and the Applicant's response to the recommendations in any audit; • Any other matter required and agreed with Council; and • Keep this information up to date. 	Compliant	Muswellbrook Coal website sighted	<p>The EIS and subsequent environmental assessments are available on the website The current DA is available on the website Management plans are available on the website Monitoring results are available on the website A complaints register is available on the website Minutes of the CCC meetings are available on the website AEMRs from the last 5 years are available on the website (earliest one is 2017) IEA's dating back to 2009 are available on the website</p>
Community Consultation				
Community Consultative Committee				
45	<p>(a) The Applicant must:</p> <p>(i) Maintain a CCC for the development. Selection of community representatives and the chairperson shall be in accordance with Council's Community Consultative Committee Guidelines.</p> <p>(ii) Representatives from relevant government agencies or other individuals may be invited to attend meetings as required by the Chairperson. The Committee may make comments and recommendations about the preparation and implementation of environmental management plans, consider compliance with conditions of this consent and other matters relevant to the operation of the mine during the term of the consent. The Applicant shall ensure that the Committee has reasonable access to the necessary plans for such purposes. The Applicant shall consider the recommendations and comments of the Committee and provide a response to the Committee.</p> <p>(b) The Applicant must, at its own expense:</p> <p>(i) nominate two (2) company representatives to attend all meetings of the Committee;</p> <p>(ii) provide to the Committee regular information on the progress of work and monitoring results;</p> <p>(iii) promptly provide to the Committee such other information as the Chair of the Committee may reasonably request concerning the environmental performance of the development;</p> <p>(iv) provide reasonable access for site inspections by the Committee; and</p> <p>(v) provide meeting facilities for the Committee, and take minutes of Committee meetings. Draft minutes shall be available for public inspection at Council within 14 days of the meeting, or as agreed by the Committee.</p> <p>NB: The CCC is an advisory committee. The Council and other agencies are responsible for ensuring the Applicant complies with the consent.</p>	Compliant	CCC meeting minutes 2019, 2020,2021	<p>A CCC has been established and has been maintained throughout the audit period for the development. As of September 2021 the committee consists of 5 community representatives, 2 MSC representatives and two MCC representatives.</p> <p>Reviewed CCC meeting minutes.</p> <p>(i) At least two MCC representatives are present at the meetings according to the CCC meeting minutes (ii) Meeting minutes note the discussion of mining progress update (iii) Monitoring results and complaints discussed according to the CCC meeting minutes (iv) Site inspections are offered as part of each meeting when weather permits and the CCC members agree to undertake an inspection (v) The meetings are held at the MCC Administration Centre and the meeting minutes are taken by Muswellbrook Coal undertakes the minutes and confirmed during the upcoming CCC meeting.</p>

Condition Number	Condition	Compliance	Evidence	Evidence and Comments									
Complaint Handling Procedures													
46	<p>The Environmental Officer employed by the mine shall be responsible for:</p> <p>(i) establishing and maintaining a system for recording complaints with respect to mine operations on a dedicated and publicly advertised telephone line, 24 hours per day 7 days per week, entering complaints or comments in an up to date log book, or other suitable data base, and ensuring that an initial response is provided to the complainant within 24 hours;</p> <p>(ii) providing a report of complaints received with respect to the operation of the mine, every 12 months throughout the life of the project to Council, EPA, DRE, and CCC, or as otherwise agreed by Council. A summary of this report shall be included in the AEMR.</p> <p>(iii) consulting with the environmental officer(s) employed by other mines in the vicinity to seek to co-ordinate a response to any complaints received regarding the operations of MCC and other mines.</p>	Compliant	<p>Email correspondence 11/03/2019</p> <p>AEMR 2018, AERM 2019</p> <p>AERM 2020</p>	<p>(i) Muswellbrook Coal provides 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 vehicles or mobile plant. The Community Complaints Hotline Number is: 1800 600 205</p> <p>(ii) A register of all complaints is maintained, and includes information relating to the nature of the complaint and actions taken by MCC and is available on the website. This is also reported in the AEMRs in Section 4.0. An email from council was sighted dating 11/03/2019 confirming the current process of reporting on complaints annually in the AEMR satisfied condition 45 (ii)</p> <p>(iii) If required MCC consults with other mines to adequately respond to any complaints.</p>									
Applicant's Obligations													
Area of Mitigation – Properties requiring Mitigation													
47	<p>Within one month of the date of the approval of the Continuation Project Modification the Applicant must:</p> <p>(i) notify in writing the owners of any residences being listed in Table 6 of the consent that they have the right to request the Applicant to ask for additional noise and/or air quality mitigation measures (as applicable) to be installed at their residence at any stage of the development until mining operations are completed on site.</p> <p>(ii) send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the owners and or existing tenants of any land where the predictions in the SEE (2016) identify that dust emissions generated by the development are likely to be greater than the relevant air quality criteria in this consent at any time during the life of the development.</p> <p>Table 6 - Land subject to additional mitigation upon request</p> <table border="1"> <thead> <tr> <th>Mitigation Basis</th> <th>Characterisation of Impact</th> <th>Land</th> </tr> </thead> <tbody> <tr> <td>Noise</td> <td>Moderate</td> <td>11, 12, 13, 24, 25, 40, 41, 42</td> </tr> <tr> <td>Air Quality</td> <td>N/A</td> <td>25, 40</td> </tr> </tbody> </table> <p>Notes To interpret the land referenced to in Table 6 see Appendix C of this consent. Definitions of Moderate mitigation are given in the DPE's Voluntary Land Acquisition and Mitigation Policy. Where the "Secretary" is referred to in the DP&E's Voluntary Land Acquisition and Mitigation Policy, it should be replaced with Council for the purposes outlined in the document and this consent. Upon receiving a written request from the owner of any residence on the land in the table above, the Applicant must implement additional noise and/or air quality mitigation measures as required at or in the vicinity of the residence in consultation with the landowner. These measures must be consistent with measures outlined in the DPE's Voluntary Land Acquisition and Mitigation Policy. They must also be reasonable and feasible and proportionate with the level of predicted impact. If within 3 months of receiving this request from the owner, the Applicant and the owner 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 Council for resolution, which must then determine the dispute based on the principles outlined above.</p>	Mitigation Basis	Characterisation of Impact	Land	Noise	Moderate	11, 12, 13, 24, 25, 40, 41, 42	Air Quality	N/A	25, 40	Compliant		Verified during last audit not triggered during the audit period
Mitigation Basis	Characterisation of Impact	Land											
Noise	Moderate	11, 12, 13, 24, 25, 40, 41, 42											
Air Quality	N/A	25, 40											

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
Adaptive Management				
48	<p>The applicant must assess and manage development related risks to provide that there are no exceedances of criteria and/or performance measures in this consent. Any exceedances of these criteria and/or performance measures constitute a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.</p> <p>Where any exceedances of these criteria and/or performance measures has occurred, the Applicant must, at the earliest opportunity:</p> <ol style="list-style-type: none"> 1. Take all reasonable and feasible steps to measure that the exceedances ceases and does not recur; 2. Consider all reasonable and feasible options for remediation (where relevant) and submit a report to Council describing those options and any preferred remediation measures or other course of action; and 3. Implement remediation measures as agreed with Council. 	Not Triggered		
Area of Affection – Land Acquisition				
49	<p>(a) Within three (3) months of receiving a written request from a landowner with acquisition rights under Condition 30(c) or 40(b)(i) of this consent, the Applicant must make a binding written offer to the landowner based on:</p> <ol style="list-style-type: none"> (i) the current market value of the owner’s interest in the land at the date of the written request as if the land was unaffected by the Project the subject of this DA, having regard to: <ul style="list-style-type: none"> • the existing and permissible use of the land in accordance with the planning instruments in force at the date of the written request; and • the presence of improvements on the land and/or any Council approved building or structure which is substantially commenced at the date of the request and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of noise and/or dust mitigation measures that have been paid for by the Applicant pursuant to this consent; (ii) the owner’s reasonable compensation for disturbance allowance and relocation costs within the Muswellbrook Local Government Area, or within such other nearby location as may be determined by Council in exceptional circumstances; and (iii) the owner’s reasonable costs for obtaining legal advice and expert witnesses for the purposes of determining the acquisition price of the land and the terms upon which it is to be acquired. <p>(b) However, if the Applicant 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 to matter to Council for resolution.</p> <ol style="list-style-type: none"> (i) Upon receiving such a request, the Council shall request the President of the Australian Property Institute to appoint a qualified independent valuer or Fellow of the Institute, who shall determine, after consideration of any submissions from the owners and the Applicant, a fair and reasonable acquisition price for the land as described in sub-clause (b) and/or terms upon which it is to be acquired. <p>(c) The Applicant shall bear the costs of any survey assessment requested by the independent valuer, and the costs of determination referred to in sub clause (b).</p>	Not Triggered		No requests during the audit period.

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
	<p>(d) Upon receipt of a determination pursuant to sub-clause (b), the Applicant shall, within 14 days, offer in writing to acquire the relevant land at a price not less than the determination. Should the Applicant's offer to acquire not be accepted in writing by the owner within six (6) months of the date of such offer, the Applicant's obligations to purchase the property shall cease, unless the Council, acting reasonably, determines otherwise.</p> <p>(e) In the event that the Applicant and the land owner agree that only part of the land is to be transferred to the Applicant, the Applicant shall pay all reasonable costs associated with applying for Council approval to any plan of subdivision and registration of the plan at the Office of the Registrar-General.</p> <p>(f) The provisions of this condition do not apply to a land owner who is the holder of an authority under the Mining Act, 1992.</p> <p>(g) Notwithstanding any other condition of this consent, the Applicant may, upon request of the landowner, acquire any property affected by the project during the course of this consent on terms agreed to between the Applicant and the landowner. Note: Appendix F of the determination sets out the process for land acquisition.</p>			
Cumulative Impact Management				
50	<p>(a) In the event that the cumulative impact of noise or dust contributed by the operation of the Project and any future mining activities/ industrial operations, at any residence on privately owned land in the vicinity of the operation, is in excess of the noise or dust acquisition criteria contained in these conditions of consent, the Applicant must endeavour, as far as reasonably practicable, to negotiate with the other companies and landowner to determine appropriate arrangements to reasonably contribute to the management of the identified cumulative impacts to the satisfaction of Council in proportion to their contributions to the impact.</p> <p>(b) If agreement cannot be reached from negotiations undertaken in accordance with subclause (a), then, with the agreement of the other contributing mines and future mining or industrial operations, the matter is to be referred to Council by either the Applicant or landowner. If the matter is not resolved within 21 days of the referral, the matter will be referred to an Independent Dispute Resolution Process as determined by Council, and resolved as determined by Council. The Independent Dispute Resolution Process shall determine the responsibilities of each of the mining and/or present or future companies in accordance with subclause (a) above and actions to be undertaken. The recommendation of the Independent Dispute Resolution Process shall be determined by Council.</p> <p>(c) Prior to referral to the Independent Dispute Resolution process, the Applicant shall provide the Director-General a report detailing the Applicant's reasons for being unable to reach agreement with the other parties, and the reasons for the criteria exceedances with demonstration that the Project activities are not the sole cause of the exceedance.</p>	Not triggered		This has not occurred during the audit period.

Condition Number	Condition	Compliance	Evidence	Evidence and Comments
Contributions to Council				
51	<p>Within 6 months of the date of the approval of Modification 8, unless Council agrees otherwise, the Applicant must enter into a VPA with Council in accordance with:</p> <ul style="list-style-type: none"> • Division 6 of Part 4 of the EP&A Act; and • The terms of the Applicants offer in its letter to Council dated 30 September 2016. 	Compliant		Verified during last audit not triggered during the audit period
Further Approvals and Agreements				
Building Code of Australia				
52	<p>The Applicant must 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 and MSB.</p> <p>Notes Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates (where applicable) for the proposed building works; Part 8 of the EP&A regulation sets out requirements for the certification of the development; and The development is located in the Muswellbrook Mine Subsidence District, and under Section 15 of the Mine Subsidence Act 1961, the Applicant is required to obtain the MSB's approval before constructing any improvements on the site.</p>	Not Triggered		
53	The Applicant shall ensure that all demolition work on site is carried out in accordance with AS 2601-2001: The Demolition of Structures, or its latest version.	Not Triggered		
54	<p>Unless the Applicant and the applicable authority agree otherwise, the Applicant must:</p> <p>(a) Repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and</p> <p>(b) Relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the project, except where such works have been compensated through the Mining Act or the Mine Subsidence Compensation Act 1961, or to damage to roads caused as a result of general road usage</p>	Not Triggered		

Mining Authorities Compliance Tables

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Condition Number	Condition	Compliance	Evidence and Comments
1 Notice to Landholders			
1	<p>Within a period of 3 months from the date of grant/ renewal of this lease or within such further time as the Minister may allow, the lease holder must serve on each landholder of the land a notice in writing indicating that this lease has been granted/renewed and whether the lease includes the surface. An adequate plan and description of the lease area must accompany the notice.</p> <p>If there are ten or more landholders affected, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that the lease has been granted/renewed; state whether the lease includes the surface and must contain an adequate plan and description of the lease area.</p>	Not Triggered	Not renewed during the audit period.
2 Environmental Harm			
2	The proponent shall implement all practicable measures to prevent and/ or minimise any harm to the environment that may result from the construction, operation or rehabilitation of the development.	Compliant	The Muswellbrook Coal Company (MCC) Environmental Management Strategy (EMS) document provides the framework for environmental management at Muswellbrook Coal. It also generally addresses the requirements in the development consent.
3 Mining Operations Plan			
3 (a)	Mining operations must not be carried out otherwise than in accordance with a MOP which has been approved by the Director- General of DPI.	Compliant	The MOP/RP is in place and has been approved by RR (previously DRE) on 29 September 2019. The MOP/RP was reviewed and was found to adequately address the requirements of this condition.
3 (b)	<ul style="list-style-type: none"> The MOP must: <ul style="list-style-type: none"> i) identify areas that will be disturbed by mining operations; ii) detail the staging of specific mining operations; iii) identify how the mine will be managed to allow mine closure; iv) identify how mining operations will be carried out on site in order to prevent and or minimise harm to the environment; v) reflect the conditions of approval under: <ul style="list-style-type: none"> - the Environmental Planning and Assessment Act 1979 - the Protection of the Environment Operations Act 1997 - and any other approvals relevant to the development including the conditions of this lease; and - have regard to any relevant guidelines adopted by the Director-General. 		<ul style="list-style-type: none"> i) Table 1.4 identifies areas (Lot numbers) that will be disturbed by mining operations, Section 2.0 further details the proposed mining activities would be undertaken ii) Addressed in Section 2.0 iii) Addressed in Section 4.0 iv) Addressed in Section 3 v) Addressed in Section 1.2 and 1.3 <p>The MOP has committed to the following activities:</p> <ul style="list-style-type: none"> In order to confirm coal resources within the mining leases exploration drilling may be required. Mining operations in Open Cut 1 would generally advance in a northerly direction from the existing mine workings with overburden emplacement in Open Cut 1 and Open Cut 2. Rehabilitation will continue to be progressively undertaken on areas that cease to be used for mining or mine-related activities as soon as reasonably practicable. <p>In accordance with the MOP mining operations have continued in Open Cut 1 and rehabilitation of previously mined areas has been undertaken where possible during the audit period.</p>
3 (c)	The titleholder may apply to the Director-General to amend an approved MOP at any time		Noted
3 (d)	It is not a breach of this condition if: <ul style="list-style-type: none"> i) the operations constituting the breach were necessary to comply with a lawful order or direction given under the Mining Act 1992, Environmental Planning and Assessment 		Noted

Condition Number	Condition	Compliance	Evidence and Comments
	Act 1979, Protection of the Environment Operations Act 1997 or the Occupational Health and Safety Act 2000 ii) The Director- General had been notified in writing of the terms of the order/ direction prior to the operations constituting the breach being carried out		
3 (e)	i) A MOP ceases to have affect 7 years after the date of approval or other such period as identified by the Director-General. An approved amendment to the MOP under condition 3 does not constitute an approval for the purpose of this paragraph unless otherwise identified by the Director General.		Noted
4 Environment Management Reporting			
4	The lease holder must lodge Environmental Management Reports with the Director General annually or at dates otherwise directed by the Director-General.	Compliant	AEMRs were reviewed for the audit period including the 2018, 2019 and 2020 reporting periods. Sighted correspondence shows the 2018 AEMR being submitted to the Director General dated 11 March 2019. Sighted correspondence shows the 2019 AEMR being submitted to the Director General dated 27 March 2020. Sighted correspondence shows the 2020 AEMR being submitted to the Director General dated 30 March 2021.
5	The EMR must: i) report against compliance with the MOP ii) report on progress in respect of rehabilitation completion criteria iii) report on the extent of compliance with regulatory requirements iv) have regard to any relevant guidelines adopted by the Director General	Compliant	AEMRs during the reporting period were reviewed and are consistent with this requirement: i. Addressed in Section 3.0 ii. Addressed in Section 5.0. iii. Addressed in Section 1.6 iv. Noted
6	Additional environmental reports may be required on specific surface disturbing operations/ environmental incidents from time to time as directed in writing by the Director- General and must be lodged as instructed	Compliant	Outlined in the previous audit,
7 Rehabilitation			
7	Disturbed land must be rehabilitated to a sustainable/ agreed end land use to the satisfaction of the Director- General	Not Triggered	Mining operations are approved until 31 December 2022. The MOP/RMP specifies the rehabilitation and as approved by the Director- General. During the audit period there has not been a lot of recent rehabilitation given the limited land available to rehabilitate. Rehabilitation activities during the audit period have mainly been limited to the maintenance of previous rehabilitation. No work has been undertaken on new rehabilitation in 2018 or 2021. The main activities that were scheduled during audit period include landform establishment and appropriate water management structures for final landform. During the audit period ongoing water quality monitoring has been undertaken to ensure it meets ANZECC Guidelines for beef cattle consumption. During the audit period, surveys of rehabilitated land were ongoing to ensure the slope on final landforms is less than 14% and the results are reported annually in the AEMR. In 2021 45 ha of land located open cut mine 2 were scheduled to be reshaped to be rehabilitated in 2022. During the site inspection on the 15 November 2021 it was noted the shaping target will likely not be reached, leading to a risk not achieving rehabilitation targets.

Condition Number	Condition	Compliance	Evidence and Comments
8 Subsidence Management			
8 (a)	The lease holder shall prepare a Subsidence Management Plan prior to any commencing any underground mining operations which will potentially lead to subsidence of the land surface	Not Triggered	No underground mining during the audit period and none planned at present.
8 (b)	Underground mining operations which will potentially lead to subsidence include secondary extraction panels such as longwalls or miniwalls, associated first workings and pillar extractions.		
8 (c)	The lease holder must not commence or undertake underground mining operations that will potentially lead to subsidence other than in accordance with a Subsidence MP approved by the Director- General		
8 (d)	Subsidence MPs are to be prepared in accordance with the Guidelines for Applications for Subsidence Management Approvals		
8 (e)	Subsidence MPs as approved shall form part of the MOP and will be subject to the AEMR process . The SMP is also subject to the requirements for subsidence monitoring and reporting.		
10 Control of Operations			
10 (a)	If an Environmental Officer of the Department believes that the least holder is not complying with any provision of the Act or any other condition of this lease relating to the working of the lease, he may direct the lease holder to: i) cease working the lease; or ii) cease the part of the operation not complying with the Act or conditions until in the opinion of the EO the situation is rectified.	Not Triggered	No such direction given in the audit period.
10 (b)	The lease holder must comply with any direction given under this condition. The Director-General may confirm, vary or revoke any such direction.		
10 (c)	A direction referred to in this condition may be served on the Mine Manager		
11 Reports			
11	The lease holder must provide an exploration report, within a period of 28 days after each anniversary of the date of this lease has effect or at such other date as the Director - General may stipulate, of each year. The report must be to the satisfaction of the Director General and contain the following: a) Full particulars, including results, interpretation and conclusions or all exploration conducted during the 12 month period b) Details of expenditure incurred in conducting that exploration c) A summary of all geological findings acquired through mining or development evaluation d) Particulars of exploration proposed to be conducted in the next 12 month period e) All plans, maps, sections and other data necessary to satisfactorily interpret the report	Compliant	Reviewed Annual Geological and Exploration Reports for the 2018, 2019 and 2020 reporting periods. Sighted lodgement details of the 2018 report dated 20 February 2019. Sighted lodgement details of the 2019 report dated 12 March 2020. Sighted lodgement details of the 2020 report dated 01 March 2021. The reports adequately address the requirements of this condition in the following sections: a) Section D, E and G b) Section D c) Section E d) Section G e) Section F and Appendices
12 Licence to Use Reports			
12 (a)	The lease holder grants to the Minister the right to copyright, publish, print, adapt and reproduce all exploration reports lodged in any form and for the full duration of copyright	Noted	
12 (b)	The non-exclusive licence will operate as consent for the purposes of section 365 of the Act.		

Condition Number	Condition	Compliance	Evidence and Comments
13 Confidentiality			
13 (a)	All exploration reports lodged will be kept confidential while the lease is in force. Except where the lease holder has agreed that specified reports may be non-confidential or reports deal with exploration conducted exclusively on areas that have ceased to be part of the lease	Noted	
13 (b)	Confidentiality will be continued beyond the termination of the lease where an application for a flow-on title was lodged during currency of lease		
13 (c)	The Director- General may extend the period of confidentiality		
14 Terms of the non-exclusive licence			
	<p>The terms of the non-exclusive copyright licence granted under condition 12 are:</p> <p>(a) the Minister may sub-licence others to publish, print, adapt and reproduce but not on-licence reports.</p> <p>(b) the Minister and any sub- licensee will acknowledge the lease holder's and any identifiable consultant's ownership of copyright in any reproduction of the reports, including storage of reports onto an electric database.</p> <p>(c) the lease holder does not warrant ownership of all copyright works in any report and, the lease holder will use best endeavours to identify those parts of the report for which the lease holder owns the copyright.</p> <p>(d) there is no royalty payable to the Minister for the licence.</p> <p>(e) if the lease holder has reasonable grounds to believe that the Minister has exercised his rights under the non-exclusive copyright licence in a manner which adversely affects the operations of the lease holder, that licence is revocable on the giving of a period of not less than three months notice.</p>	Noted	
15 Blasting			
15 (a)	The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting within the lease area does not exceed 10 mm/s and does not exceed 5 mm/s in more than 5% of the total number of blasts over a 12 month period at any dwelling or occupied premises unless determined otherwise by the DECCW	Compliant	<p>No exceedance of criteria during the audit period.</p> <p>During the audit period (Nov 2018 – Nov 2021) no blast exceeded 120 dB(A) and exceeded no more than 5% over 115 dB(A) over any given reporting period.</p>
15 (b)	The lease holder must ensure that the blast overpressure noise level generated by any blast within the lease area does not exceed 120 dB(L) and does not exceed 115dB(L) in more than 5% of the total number of blasts over a 12 month period at any dwelling or occupied premises unless determined otherwise by the DECCW		
16 Safety			
	Operations must be carried out in a manner that ensures the safety of persons or stock in the vicinity of the operations. All drill holes, shafts and excavations must be appropriately protected, to the satisfaction of the Director- General, to ensure that access to them by persons and stock is restricted. Abandoned shafts and excavations opened up or used by the lease holder must be filled in or otherwise rendered safe to an acceptable standard	Noted	
17 Exploratory Drilling			
17 (a)	At least 28 days prior to commencement of drilling operations the lease holder must notify the relevant Department of Water and Energy Regional Hydrologist of the intention to drill exploratory drill holes together with information on the location of the proposed holes.	Not Triggered	
17 (b)	<p>If the lease holder drills exploratory drill holes he must satisfy the Director-General that:</p> <p>all cored holes are accurately surveyed and permanently marked in accordance with Departmental guidelines so that their location can be easily established</p>		

Condition Number	Condition	Compliance	Evidence and Comments
	<p>(ii) all holes cored or otherwise are sealed to prevent the collapse of the surrounding surface: all drill holes are permanently sealed with cement plugs to prevent surface discharge of groundwaters</p> <p>(iv) if any drill holes meet natural or noxious gases it is plugged/ sealed to prevent their escape if any drill hole meets an artesian/ sub-artesian flow it is effectively sealed to prevent contamination of aquifers</p> <p>(vi) once any drill hole ceases to be used the hole must be sealed as instructed by the Director- General</p> <p>(vii) once any drill hole ceases to be used the land and its immediate vicinity is left in clean, tidy and stable condition</p>		
18 Prevention of Soil Erosion and Pollution			
	Operations must be carried out in a manner that does not cause or aggravate air pollution, water pollution or soil contamination or erosion unless otherwise authorised by a relevant approval and in accordance with the MOP. For the purpose of this condition, water shall be taken to include any watercourse, waterbody or groundwaters. The lease holder must observe and perform any instructions given by the Director-General in this regard.	Compliant	Air Quality and Water Management Plans have been implemented for the development which outlines best practice to the management of potential air, water and contamination pollution.
19 Transmission lines, Communications lines and Pipelines			
	Operations must not interfere with or impair the stability or efficiency of transmission line, communication line, pipeline or any other public utility without prior written approval from the Director-General and subject to any conditions he may stipulate.	Not Triggered	
20 Fences, Gates			
20 (a)	Activities on the lease must not interfere with or damage fences without the prior written approval of the owner thereof or the Minister and subject to any conditions stipulated	Not Triggered	
20 (b)	Gates within the lease area must be closes or left open in accordance with the requirements of the landholder		
21 Roads and Tracks			
21 (a)	Operations must not affect any road unless in accordance with an accepted MOP or with prior written approval of the Director-General and subject to any conditions he may stipulate.	Not Triggered	
21 (b)	The lease holder must pay to the designated authority in control of the road the cost incurred in fixing any damage to the roads cause by operations carried out under the lease, less any amount paid or payable from the Mine Subsidence Compensation Fund.		
22 Roads and Tracks			
	Any tracks must be kept to a minimum and be positioned so that they do not cause any unnecessary damage to the land. Temporary access tracks must be ripped, topsoiled and revegetated as soon as possible after they are no longer required for mining operations. The design and construction of access tracks must be in accordance with specifications fixed by the Department of Environment and Climate Change.	Compliant	The MOP/RP specifies that “where possible existing access tracks will be utilised for any exploration program”. During the site inspection internal access tracks were observed to be kept to a minimum and were well maintained.

Condition Number	Condition	Compliance	Evidence and Comments
23 Trees and Timber			
23 (a)	The lease holder must not fell trees, strip bark or cut timber on any land without the consent of the landholder.	Not Triggered	
23 (b)	The lease holder must not cut, destroy, ringbark or remove timber or other vegetative cover on any land subject of this lease other than in accordance with the conditions of this lease and any approval granted thereunder.		
23 (c)	The lease holder must obtain all necessary approvals/ licences before using timber from any Crown Land within the lease area		
25 Resource Recovery			
25 (a)	Notwithstanding any description of mining methods and their sequence or of proposes resource recovery contained within the MOP, if at any time the Director- General is of the opinion that minerals which the lease entitles and is economical but are not being recovered or not to the possible extent or which environmental reasons are necessary to extract, he may give written notice requiring the lease holder to recover such minerals	Noted	Life of mine has been extended to 2022, production levels have been maintained throughout audit period.
25 (b)	The notice shall specify minerals and extent of recovery, or objectives in regard to recovery, but shall not specify the process the lease holder shall use to achieve		
25 (c)	The lease holder must, when requested by the Director- General, provide such information as may be specified about the recovery		
25 (d)	The Director- General shall issue no notice unless the matter has first been thoroughly discussed with and a report has incorporated the views of the lease holder		
25 (e)	The lease holder may object to the requirement of any notice issued under this condition and on receipt the Minister shall refer it to a Warden for inquiry and report		
25 (f)	After considering the Warden's Report the Minister shall decide whether to withdraw, modify or maintain the requirements specified in written notice. The lease holder must comply with the requirements		
26 Indemnity			
	The lease holder must indemnify and keep indemnified the Crown from and against all actions, suits, claims and demands of any nature and all costs, charges, expenses which may be incurred paid by the lease holder or which the lease holder may incur in respect of any accident or injury to any person or property which may arise out of the construction, maintenance or working of any workings now existing to be made by the lease holder within the lease area of in connections with any of the operations notwithstanding that all other conditions of this lease shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease may be licensed or compelled to do.	Noted	
28 Security			
28 (a)	<p>The single security in the sum of \$5,925,500 must be given and maintained with the Minister by the lease holder for the purpose of ensuring the fulfilment of obligations under the CCL 713, ML 1304, 1513, 1562</p> <p>Instrument of Variation dated 20 August 2020 detailed</p> <p>26. The lease holder is required to provide and maintain a security deposit to secure funding for the fulfilment of obligations of all or any kind under the lease including obligations of all or any kind under the lease that may arise in the future.</p> <p>The amount of the security deposit to be provided as a group security has been assessed by the Secretary at \$58,492,000.00.</p>	Compliant	Email correspondence from the Department was sighted dated 1 October 2020 confirming they have received the security deposit.

Condition Number	Condition	Compliance	Evidence and Comments
28 (b)	The lease holder must provide the security required by paragraph (a) in one of the following forms: (i) cash (ii) a security certificate in a form approved by the Minister and issued by an authorised deposit-taking institution.		
30 Suspension of Mining Operations			
	The holder of the CCL may not suspend mining operations in the mining area other than in accordance with the consent of the Minister	Noted	
31 Cooperative Agreement			
	The lease holder must make every reasonable attempt, and be able to demonstrate their attempts to enter into a cooperation agreement with the holder(s) of any overlapping petroleum title(s). The cooperation should address but not be limited to issues such as: - Access arrangements - Operational interaction procedures - Dispute resolution - Information exchange - Well location - Potential resource extraction conflicts	Not Triggered	
Special Conditions			
32 Barrier, Mining and Prospecting Restriction			
	Unless with the consent of the Minister first had and obtained and subject to such conditions he may impose, the lease holder shall not work/ cause to be worked any coal seam by underground methods within the subject area within the barrier defined.	Noted	
33 Barrier, Mining and Prospecting Restriction			
	Any approval or consent given by the Minister including any approval or consent given pursuant to any condition or term contained in a lease consolidated into this lease to the effect that the lease holder may conduct mining operations in those parts of the subject area within the zone defined in Condition 32 shall be deemed to be a consent for the purposes of said Condition 32 subject to the same conditions of that approval or consent. Provided however that this clause shall also apply to any barrier 20.12 metres wide within the said zone.	Noted	
34 Barrier, Mining and Prospecting Restriction			
	The lease holder shall not work/ cause to be worked any seam of coal within the subject area without leaving, if the Minister by order given in writing to the lease holder so directs, a barrier of such width or a protective pillar(s) of such size(s) as is specified in the order, against any surface improvement/ feature whether natural or artificial	Noted	

ML 1304

Condition Number	Condition	Compliance	Evidence and Comments
1 Notice to Landholders			
1 (a)	Within a period of three months from the date of grant/renewal of this mining lease, the lease holder must serve on each landholder a notice in writing indicating that this mining lease has been granted/renewed and whether the lease includes the surface. A plan identifying each landholder and individual land parcel subject to the lease area, and a description of the lease area must accompany the notice.	Not Triggered	Lease not renewed during the audit period.
1 (b)	If there are ten or more landholders, the lease holder may serve the notice by publication in a newspaper circulating in the region where the lease area is situated. The notice must indicate that this mining lease has been granted/renewed; state whether the lease includes the surface and must contain a plan and description of the lease area. If a notice is made under condition 1(b), compliance with condition 1(a) is not required.		
2 Rehabilitation			
	Any disturbance resulting from the activities carried out under this mining lease must be rehabilitated to the satisfaction of the Minister.	Not Triggered	Mining operations are approved until 31 December 2022. The MOP/RP specifies the rehabilitation and as approved by the Director- General.
3 Mining Operations Plan and Annual Rehabilitation Report			
3 (a)	The lease holder must comply with an approved Mining Operations Plan (MOP) in carrying out any significant surface disturbing activities, including mining operations, mining purposes and prospecting. The lease holder must apply to the Minister for approval of a MOP. An approved MOP must be in place prior to commencing any significant surface disturbing activities, including mining operations, mining purposes and prospecting.	Compliant	<p>The MOP/RP is in place and was revised and approved by RR during the audit period on 27 September 2019. The MOP/RP was reviewed and was found to adequately address the requirements of this condition.</p> <ul style="list-style-type: none"> i. Addressed in Section 2.2 Table 5. ii. Addressed in Section 2.3 iii. Addressed in Section 4.0 iv. Addressed in Section 3.2 v. Addressed in Section 1.2 and 1.3 <p>The MOP has committed to the following activities:</p> <ul style="list-style-type: none"> • In order to confirm coal resources within the mining leases exploration drilling may be required. • Mining operations in Open Cut 1 would generally advance in a northerly direction from the existing mine workings with overburden emplacement in Open Cut 1 and Open Cut 2. • Rehabilitation will continue to be progressively undertaken on areas that cease to be used for mining or mine-related activities as soon as reasonably practicable. <p>The MOP specifies compliance with Guideline ESG3 – Mining Operations Plan (MOP) Guidelines in Section 4.1.3</p> <p>Noted</p> <p>Noted</p>
3 (b)	The MOP must identify the post mining land use and set out a detailed rehabilitation strategy which: (i) identifies areas that will be disturbed; (ii) details the staging of specific mining operations, mining purposes and prospecting; (iii) identifies how the mine will be managed and rehabilitated to achieve the post mining land use; (iv) identifies how mining operations, mining purposes and prospecting will be carried out in order to prevent and or minimise harm to the environment; and (v) reflects the conditions of approval under: - the Environmental Planning and Assessment Act 1979; - the Protection of the Environment Operations Act 1997; and - any other approval relevant to the development including the conditions of this mining lease.		
3 (c)	The MOP must be prepared in accordance with the ESG3: Mining Operations Plan (MOP) Guidelines September 2013 published on the Department's website at www.resources.nsw.gov.au/environment		
3 (d)	The lease holder may apply to the Minister to amend an approved MOP at any time.		
3 (e)	It is not a breach of this condition if: (i) the operations which, but for this condition 3(e) would be a breach of condition 3(a), were necessary to comply with a lawful order of direction given under the Environmental Planning and Assessment Act 1979, the Protection of the Environment Operations Act 1997, the Mine Health and Safety Act 2004 / Coal Mine Health and Safety Act 2002 and Mine Health and Safety Regulation 2007 / Coal Mine Health and Safety Regulation 2006 or the Work Health and Safety Act 2011; and (ii) the Minister had been notified in writing of the terms of the order or direction prior		

Condition Number	Condition	Compliance	Evidence and Comments
	to the operations constituting the breach being carried out.		
3 (f)	The lease holder must prepare a Rehabilitation Report to the satisfaction of the Minister. The report must: (i) provide a detailed review of the progress of rehabilitation against the performance measures and criteria established in the approved MOP; (ii) be submitted annually on the grant anniversary date (or at such other times as agreed by the Minister); and (iii) be prepared in accordance with any relevant annual reporting guidelines published on the Department's website at www.resources.nsw.gov.au/environment . Note: The Rehabilitation Report replaces the Annual Environmental Management Report.		AEMRs are prepared and submitted to the Minister annually in March. Section 5 of the AEMR outlines rehabilitation outcomes during the reporting year.
4 Incident Notification			
4 (a)	Notify the Resources Regulator of any non-compliance with the conditions of the Mining Lease or the legislation within 7 days of the non-compliance being identified; and	Not triggered	
4 (b)	Provide environmental incident notifications and reports to the Secretary within 7 days of those notification and reports being provided to relevant authorities under environmental legislation.		
6 Subsidence Management			
	The lease holder must not commence or undertake underground mining operations that may cause subsidence of the surface other than in accordance with an Eligible Subsidence Management Plan approved by the Director-General. For the purpose of this condition, an 'Eligible Subsidence Management Plan' means" (i) A subsidence Management Plan prepared in accordance with current government guidelines for the preparation of Subsidence Management Plans; or (ii) Those parts of an Extraction Plan or another type of plan: <ul style="list-style-type: none"> Prepared, either in whole or in part with reference to current government guidelines for the preparation of a Subsidence Management Plan; and Approved for the purpose of the <i>Environmental Planning and Assessment Act 1979</i> (or any planning legislation which replaces that Act) by the Minister or Director-General of the Department of Planning & Infrastructure, or another office of that Department authorised to approve such a plan, which relate to issues of subsidence. 	Not Triggered	No underground mining during the audit period.
7 Resource Recovery			
	The lease holder must optimise recovery of the minerals that are the subject of this mining lease to the extent economically feasible.	Noted	Coal produced during the 2018 reporting period was 1,711,271 t. Coal produced during the 2019 reporting period was 1,358,987 t. Coal produced during the 2020 reporting period was 1,148,962 t. Product coal produced during 2021 up to and including October is 1,028,561 t.
8 Single Security			
	The lease holder is required to provide and maintain a security deposit to secure funding for the fulfilment of obligations of all or any kind under the lease, including obligations of all or any kind under the lease that may arise in the future. The amount of the security deposit to be provided as a group security has been assessed by the Secretary at \$58,492,000.00The leases covered by the single security include: Consolidated Coal Lease 713 (Act 1973) Mining Lease 1304 (Act 1992) Mining Lease 1513 (Act 1992) Mining Lease 1562 (Act 1992)	Compliant	Department confirmed security deposit as of 1 October 2020 as outlined above.
9 Cooperative Agreement			
	The lease holder must make every reasonable attempt, and be able to demonstrate its attempts, to enter into a cooperation agreement with the holder(s) of any overlapping title(s). The cooperation agreement should address but not be limited to issues such as:	Not Triggered	

Condition Number	Condition	Compliance	Evidence and Comments
	<ul style="list-style-type: none"> - access arrangements - operational interaction procedures - dispute resolution - information exchange - well location - timing of drilling - potential resource extraction conflicts; and - rehabilitation issues. 		
10 Exploration Reporting			
	<p>Note: Exploration Reports (Geological and Geophysical) The lease holder must lodge reports to the satisfaction of the Minister in accordance with section 163C of the Mining Act 1992 and in accordance with clause 57 of the Mining Regulation 2010. Reports must be prepared in accordance with Exploration Reporting: a guide for reporting on exploration and prospecting in New South Wales (Department of Trade and Investment; Regional Infrastructure and Services).</p>	Compliant	Reviewed Annual Geological and Exploration Reports for the 2018-2019, 2019-2020 and 2020-2021 reporting periods.

ML 1562

Condition Number	Condition	Compliance	Evidence and Comments
1 Notice to Landholders			
	Within a period of 3 months from the date of grant/ renewal of this lease or within such further time as the Minister may allow, the lease holder must serve on each landholder of the land a notice in writing indicating that this lease has been granted/ renewed and whether the lease includes the surface. An adequate plan and description of the lease area must accompany the notice.	Not Triggered	No renewal during the audit period.
2 Mining Operations Plan			
2 (1)	Mining operations, including mining purposes, must be conducted in accordance with a Mining Operations Plan (the Plan) satisfactory to the Director-General. The Plan together with environmental conditions of development consent and other approvals will form the basis for:- (a) ongoing mining operations and environmental management; and (b) ongoing monitoring of the project.	Compliant	The MOP/RP is in place and has been revised and approved by RR during the audit period on the 27 September 2019. A review of the MOP/RP has found it to adequately address the requirements of this condition. Section 4.1.3 of the MOP/RMP outlines the policies and guidelines relevant to the plan.
2 (2)	The Plan must be prepared in accordance with the Director-General's guidelines current at the time of lodgement. A Plan must be lodged with the Director-General:-		This MOP (current MOP) covers activities from January 2017 to December 2023 and replaces the previous MOP.
2 (3)	(a) prior to the commencement of mining operations (including mining purposes); (b) subsequently as appropriate prior to the expiry of any current Plan; and (c) in accordance with any direction issued by the Director-General. The Plan must present a schedule of proposed mine development for a period of up to seven (7) years and contain diagrams and documentation which identify:-		This MOP (current MOP) covers activities from January 2017 to December 2023. A review of the MOP/RP has found that it adequately addresses the requirements of this condition.
2 (4)	(a) area(s) proposed to be disturbed under the Plan; (b) mining and rehabilitation method(s) to be used and their sequence; (c) areas to be used for disposal of tailings/waste; (d) existing and proposed surface infrastructure; (e) existing flora and fauna on the site; (f) progressive rehabilitation schedules; (g) areas of particular environmental, ecological and cultural sensitivity and measures to protect these areas; (h) water management systems (including erosion and sediment controls); (i) proposed resource recovery; and (j) where the mine will cease extraction during the term of the Plan, a closure plan including final rehabilitation objectives/methods and post mining landuse/vegetation.		(a) Addressed in Section 2.3 (b) Addressed in Section 4.3 and 5.3 (c) Addressed in Section 2.3.5 (d) Addressed in Section 2.3.2 (e) Addressed in Section 3.2.9 and 3.2.10 (f) Addressed in Section 2.3.9 (g) Addressed in Section 3.0 (h) Addressed in Section 3.2.7 and 7.3.1 (i) Addressed in Section 5.2 (j) Addressed in Section 2.1

Condition Number	Condition	Compliance	Evidence and Comments
2 (5)	The Plan when lodged will be reviewed by the Department.		Approval letter from DRE sighted (dated 9 March 2017). Revised and approved (dated 27 September 2019)
2 (6)	The Director-General may within two (2) months of the lodgement of a Plan, require modification and re-lodgement.		Not triggered
2 (7)	If a requirement in accordance with clause (6) is not issued within two (2) months of the lodgement of a Plan, the lease holder may proceed with implementation of the Plan.		Noted
2 (8)	During the life of the Mining Operations Plan, proposed modifications to the Plan must be lodged with the Director-General and will be subject to the review process outlined in clauses (5) - (7) above.		Noted
3 Annual Environmental Management Report (AEMR)			
3 (1)	Within 12 months of the commencement of mining operations and thereafter annually or, at such other times as may be allowed by the Director-General, the lease holder must lodge an Annual Environmental Management Report (AEMR) with the Director-General. The AEMR must be prepared in accordance with the Director-General's guidelines current at the time of reporting and contain a review and forecast of performance for the preceding and ensuing twelve months in terms of:	Compliant	Sighted 2018, 2019 and 2020 AEMRs. AEMRs relevant to the audit period have been prepared in accordance with the Director-General's guidelines and adequately address the requirements of this condition.
3 (2)	(a) the accepted Mining Operations Plan; (b) development consent requirements and conditions (c) Department of Environment and Conservation and Department of Infrastructure, Planning and Natural Resources licences and approvals; (d) any other statutory environmental requirements; (e) details of any variations to environmental approvals applicable to the lease area; and (f) where relevant, progress towards final rehabilitation objectives.		(a) Addressed in Section 1.1 (b) Addressed in Section 1.3 (c) Addressed in Section 1.2 (d) Addressed in Section 1.2 (e) Addressed in Section 1.1 (f) Addressed in Section 5.0.
3 (3)	After considering an AEMR the Director-General may, by notice in writing, direct the lease holder to undertake operations, remedial actions or supplementary studies in the manner and within the period specified in the notice to ensure that operations on the lease area are conducted in accordance with sound mining and environmental practice.		No direction given during the audit period.
3 (4)	The lease holder shall, as and when directed by the Minister, co-operate with the Director-General to conduct and facilitate review of the AEMR involving other government agencies and the local council.		Noted
4 Subsidence Management			
4 (a)	The lease holder shall prepare a Subsidence Management Plan prior to commencing any underground mining operations which will potentially lead to subsidence of the land surface.	Not Triggered	No underground mining during the audit period.
4 (b)	Underground mining operations which will potentially lead to subsidence include secondary extraction panels such as longwalls or miniwalls, associated first workings (gate roads, installation roads and associated main headings, etc), and pillar extractions, and are otherwise defined by the Guideline for Applications for Subsidence Management Approvals.		

Condition Number	Condition	Compliance	Evidence and Comments
4 (c)	The lease holder must not commence or undertake underground mining operations that will potentially lead to subsidence other than in accordance with a Subsidence Management Plan approved by the Director-General, an approval under the Coal Mines Regulation Act 1982, or the document New Subsidence Management Plan Approval Process - Transitional Provisions.		
4 (d)	Subsidence Management Plans are to be prepared in accordance with the Guideline for Applications for Subsidence Management Approvals.		
4 (e)	Subsidence Management Plans as approved shall form part of the Mining Operations Plan required under Condition 2 and will be subject to the Annual Environmental Management Report process as set out under Condition 3. The SMP is also subject to the requirements for subsidence monitoring and reporting set out in the document New Approval Process for Management of Coal Mining Subsidence - Policy.		
6 Control of Operations			
6 (a)	If an Environmental Officer of the Department believes that the lease holder is not complying with any provision of the Act or any condition of this lease relating to the working of the lease, he may direct the lease holder to:- (i) cease working the lease; or (ii) cease that part of the operation not complying with the Act or conditions; until in the opinion of the Environmental Officer the situation is rectified.	Not Triggered	
6 (b)	The lease holder must comply with any direction given. The Director- General may confirm, vary or revoke any such direction.		
6 (c)	A direction referred to in this condition may be served on the Mine Manager.		
7 Reports			
7	The lease holder must provide an exploration report, within a period of twenty- eight days after each anniversary of the date this lease has effect or at such other date as the Director-General may stipulate, of each year. The report must be to the satisfaction of the Director-General and contain the following: (a) Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period; (b) Details of expenditure incurred in conducting that exploration; (c) A summary of all geological findings acquired through mining or development evaluation activities; (d) Particulars of exploration proposed to be conducted in the next twelve months period; (e) All plans, maps, sections and other data necessary to satisfactorily interpret the report.	Compliant	Reviewed Annual Geological and Exploration Reports for the 2018, 2019 and 2020 reporting periods. Sighted lodgement details of the 2018 report dated 20 February 2019. Sighted lodgement details of the 2019 report dated 12 March 2020. Sighted lodgement details of the 2020 report dated 01 March 2021. The reports adequately address the requirements of this condition in the following sections: a) Section D, E and G b) Section D c) Section E d) Section G e) Section F and Appendices

Condition Number	Condition	Compliance	Evidence and Comments
8 Licence to Use Reports			
8 a)	The lease holder grants to the Minister, by way of a non-exclusive licence, the right in copyright to publish, print, adapt and reproduce all exploration reports lodged in any form and for the full duration of copyright.	Noted	
8 b)	The non-exclusive licence will operate as consent for the purposes of section 365 of the Mining Act 1992.		
9 Confidentiality			
9 (a)	All exploration reports submitted in accordance with the conditions of this lease will be kept confidential while the lease is in force, except in cases where: (i)the lease holder has agreed that specified reports may be made non- confidential. (ii)reports deal with exploration conducted exclusively on areas that have ceased to be part of the lease.	Noted	
9 (b)	Confidentiality will be continued beyond the termination of a lease where an application for a flow-on title was lodged during the currency of the lease. The confidentiality will last until that flow-on title or any subsequent flow-on title, has terminated.		
9 (c)	The Director-General may extend the period of confidentiality.		
10 Terms of the Non-Exclusive Licence			
10	The terms of the non-exclusive copyright licence granted under condition 8 (a) are: (a)the Minister may sub-licence others to publish, print, adapt and reproduce but not on-licence reports. (b)the Minister and any sub- licensee will acknowledge the lease holder's and any identifiable consultant's ownership of copyright in any reproduction of the reports, including storage of reports onto an electronic database. (c)the lease holder does not warrant ownership of all copyright works in any report and, the lease holder will use best endeavours to identify those parts of the report for which the lease holder owns the copyright. (d)there is no royalty payable by the Minister for the licence. (e)if the lease holder has reasonable grounds to believe that the Minister has exercised his rights under the non-exclusive copyright licence in a manner which adversely affects the operations of the lease holder, that licence is revocable on the giving of a period of not less than three months notice.	Noted	
11 Blasting			
11 (a)	Ground Vibration The lease holder must ensure that the ground vibration peak particle velocity generated by any blasting within the lease area does not exceed 10 mm/second and does not exceed 5 mm/second in more than 5% of the total number of blasts over a period of 12 months at any dwelling or occupied premises as the case may be, unless determined otherwise by the Department of Environment and Conservation.	Compliant	No exceedance of blast criteria during the audit period.
11 (b)	Blast Overpressure The lease holder must ensure that the blast overpressure noise level generated by any blasting within the lease area does not exceed 120 dB (linear) and does not exceed 115 dB (linear) in more than 5% of the total number of blasts over a period of 12 months, at any dwelling or occupied premises, as the case may be, unless determined otherwise by the Department of Environment and Conservation.		No exceedance of blast criteria during the audit period.

Condition Number	Condition	Compliance	Evidence and Comments
12 Safety			
	Operations must be carried out in a manner that ensures the safety of persons or stock in the vicinity of the operations. All drill holes shafts and excavations must be appropriately protected, to the satisfaction of the Director-General, to ensure that access to them by persons and stock is restricted. Abandoned shafts and excavations opened up or used by the lease holder must be filled in or otherwise rendered safe to a standard acceptable to the Director-General.	Noted	
13 Rehabilitation			
13 (a)	<p>Land disturbed must be rehabilitated to a stable and permanent form suitable for a subsequent land use acceptable to the Director-General and in accordance with the Mining Operations Plan so that:-</p> <ul style="list-style-type: none"> •there is no adverse environmental effect outside the disturbed area and that the land is properly drained and protected from soil erosion •the state of the land is compatible with the surrounding land and land use requirements. •the landforms, soils, hydrology and flora require no greater maintenance than that in the surrounding land. •in cases where revegetation is required and native vegetation has been removed or damaged, the original species must be re- established with close reference to the flora survey included in the Mining Operations Plan. If the original vegetation was not native, any re-established vegetation must be appropriate to the area and at an acceptable density. •the land does not pose a threat to public safety. 	Compliant	<p>Rehabilitation objectives are outlined in the MOP/RP which has been approved by RR on 9 March 2017. Rehabilitation progress is reported annually in the AEMRs which are reviewed and approved by RR.</p> <p>Mining activities under the current MOP will continue to 2023 and as such rehabilitation is ongoing.</p> <p>During the audit period the following rehabilitation activities were undertaken; bulk shaping, spreading of topsoil and seeding with tree and pasture species, weed control and removal of redundant equipment where possible.</p> <p>There were no new areas available for rehabilitation during the audit period so the focus was on rehabilitation maintenance.</p> <p>These activities are in accordance with the MOP.</p>
13 (b)	Any topsoil that is removed must be stored and maintained in a manner acceptable to the Director-General.		Section 2.3.1 of the MOP outlines “topsoil and subsoil will be salvaged and stockpiled for use in rehabilitating the site taken out”.
14			
	The lease holder must comply with any direction given by the Director-General regarding the stabilisation and revegetation of any mine residues, tailings or overburden dumps situated on the lease area.	Not Triggered	No direction given during the audit period.
15 Exploratory Drilling			
15 (1)	At least twenty eight days prior to commencement of drilling operations the lease holder must notify the relevant Department of Infrastructure, Planning and Natural Resources regional hydrogeologist of the intention to drill exploratory drill holes together with information on the location of the proposed holes.	Not Triggered	No exploration drilling in the audit period. .
15 (2)	<p>If the lease holder drills exploratory drill holes he must satisfy the Director-General that:-</p> <p>(a)all cored holes are accurately surveyed and permanently marked in accordance with Departmental guidelines so that their location can be easily established;</p> <p>b)all holes cored or otherwise are sealed to prevent the collapse of the surrounding surface;</p> <p>(c)all drill holes are permanently sealed with cement plugs to prevent surface discharge of groundwaters;</p> <p>(d)if any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape;</p>		

Condition Number	Condition	Compliance	Evidence and Comments
	<p>(e)if any drill hole meets an artesian or sub-artesian flow it is effectively sealed to prevent contamination of aquifers.</p> <p>(f)once any drill hole ceases to be used the hole must be sealed in accordance with Departmental guidelines. Alternatively, the hole must be sealed as instructed by the Director-General.</p> <p>(g)once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition.</p>		
16 Prevention of Soil Erosion and Pollution			
	Operations must be carried out in a manner that does not cause or aggravate air pollution, water pollution (including sedimentation) or soil contamination or erosion, unless otherwise authorised by a relevant approval, and in accordance with an accepted Mining Operations Plan. For the purpose of this condition, water shall be taken to include any watercourse, waterbody or groundwaters. The lease holder must observe and perform any instructions given by the Director-General in this regard.	Compliant	Air Quality and Water Management Plans have been prepared for the development which outlines best practice to the management of potential air, water and contamination pollution.
17 Transmission lines, Communications lines and Pipelines			
	Operations must not interfere with or impair the stability or efficiency of any transmission line, communication line, pipeline or any other utility on the lease area without the prior written approval of the Director-General and subject to any conditions he may stipulate.	Not Triggered	
18 Fences, Gates			
18 (a)	Activities on the lease must not interfere with or damage fences without the prior written approval of the owner thereof or the Minister and subject to any conditions the Minister may stipulate.	Not Triggered	
18 (b)	Gates within the lease area must be closed or left open in accordance with the requirements of the landholder.		
19 Roads and Tracks			
19 (a)	Operations must not affect any road unless in accordance with an accepted Mining Operations Plan or with the prior written approval of the Director-General and subject to any conditions he may stipulate.	Not Triggered	
19 (b)	The lease holder must pay to the designated authority in control of the road (generally the local council or the Roads and Traffic Authority) the cost incurred in fixing any damage to roads caused by operations carried out under the lease, less any amount paid or payable from the Mine Subsidence Compensation Fund.		
20			
	Access tracks must be kept to a minimum and be positioned so that they do not cause any unnecessary damage to the land. Temporary access tracks must be ripped, topsoiled and revegetated as soon as possible after they are no longer required for mining operations. The design and construction of access tracks must be in accordance with specifications fixed by the Department of Infrastructure, Planning and Natural Resources.	Compliant	The MOP/RP specifies that “where possible existing access tracks will be utilised for any exploration program”. During the site visit access tracks were observed to be kept to a minimum as required.

Condition Number	Condition	Compliance	Evidence and Comments
21 Trees and Timber			
21 (a)	The lease holder must not fell trees, strip bark or cut timber on the lease without the consent of the landholder who is entitled to the use of the timber, or if such a landholder refuses consent or attaches unreasonable conditions to the consent, without the approval of a warden.	Not Triggered	
21 (b)	The lease holder must not cut, destroy, ringbark or remove any timber or other vegetative cover on the lease area except such as directly obstructs or prevents the carrying on of operations. Any clearing not authorised under the Mining Act 1992 must comply with the provisions of the Native Vegetation Conservation Act 1997.		
21 (c)	The lease holder must obtain all necessary approvals or licences before using timber from any Crown land within the lease area.		
23 Resource Recovery			
23 (a)	<p>Notwithstanding any description of mining methods and their sequence or of proposed resource recovery contained within the Mining Operations Plan, if at any time the Director-General is of the opinion that minerals which the lease entitles the lease holder to mine and which are economically recoverable at the time are not being recovered from the lease area, or that any such minerals which are being recovered are not being recovered to the extent which should be economically possible or which for environmental reasons are necessary to be recovered, he may give notice in writing to the lease holder requiring the holder to recover such minerals.</p> <p>The notice shall specify the minerals to be recovered and the extent to which they are to be recovered, or the objectives in regard to resource recovery, but shall not specify the processes the lease holder shall use to achieve the specified recovery.</p> <p>The lease holder must, when requested by the Director-General, provide such information as the Director-General may specify about the recovery of the mineral resources of the lease area.</p> <p>The Director-General shall issue no such notice unless the matter has firstly been thoroughly discussed with and a report to the Director-General has incorporated the views of the lease holder.</p> <p>The lease holder may object to the requirements of any notice issued under this condition and on receipt of such an objection the Minister shall refer it to a Warden for inquiry and report under Section 334 of the Mining Act, 1992.</p> <p>After considering the Warden's report the Minister shall decide whether to withdraw, modify or maintain the requirements specified in the original notice and shall give the lease holder written notice of the decision. The lease holder must comply with the requirements of this notice.</p>	Not Triggered	No notice given during the audit period.
23 (b)			
23 (c)			
23 (d)			
23 (e)			
23 (f)			
23 Indemnity			
	<p>The lease holder must indemnify and keep indemnified the Crown from and against all actions, suits, claims and demands of whatsoever nature and all costs, charges and expenses which may be brought against the lease holder or which the lease holder may incur in respect of any accident or injury to any person or property which may arise out of the construction, maintenance or working of any workings now existing or to be made by the lease holder within</p> <p>the lease area or in connection with any of the operations notwithstanding that all other conditions of this lease shall in all respects have been observed by the lease holder or that any such accident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do.</p>	Noted	

Condition Number	Condition	Compliance	Evidence and Comments
26 Single Security (extended)			
26 (a)	The single security given and maintained with the Minister by the lease holder for the purpose of ensuring the fulfilment by the lease holder of obligations under CCL 713 (Act 1973), ML 1304 (Act 1992) and ML 1513 (Act 1992) is extended to apply to this lease.	Compliant	As outlined above, email correspondence from the Department was sighted dated 1 October 2020 confirming they have received the security deposit.
26 (b)	If the lease holder fails to fulfil any one or more of the obligations under this lease, then the security held may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purpose of this clause the lease holder shall be deemed to have failed to fulfil the obligations of the lease if the lease holder fails to comply with any condition or provision hereof, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision hereof or of any provision of the Act or regulations made thereunder.		Noted
27 Special Conditions			
27 (a)	The lease holder shall take all precautions against causing outbreak of spontaneous combustion and fire on the subject area, shall make record of such occurrence, and notify a Environmental Officer of such occurrence.	Compliant	The Spontaneous Combustion Management Plan has been revised and approved by the MSC within the audit period for the development dated 30 November 2020. The plan outlines the mitigation measures and management spontaneous combustion of the development in Section 8.0.
27 (b)	Notwithstanding (a) above, the lease holder shall establish and implement a Spontaneous Combustion Management Plan which is to address risk assessment, management control procedures and reporting protocols to the satisfaction of a Environmental Officer.		
28			
	Upon completion of operations on the surface of the subject area or upon the expiry or sooner determination of this authority or any renewal thereof, the lease holder shall remove from such surface such buildings, machinery, plant, equipment, constructions and works as may be directed by the Minister and such surface shall be rehabilitated and left in a clean, tidy and safe condition to the satisfaction of the Minister.	Not Triggered	Mining operations are approved until 31 December 2022.

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Condition Number	Condition	Compliance	Evidence and Comments
Administrative Conditions			
Condition A1.1			
	Licence authorises the carrying out of the scheduled activities listed below at the premises specified in the A2. The activities listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation. Unless otherwise further restricted by a condition of this licence, the scale at which this activity is carried out must not exceed the maximum scale specified in this condition. Coal Works - Coal works - 0 - 2,000,000 T annual handling capacity Mining for Coal - Mining for coal >500,000- 2,000,000 T annual production capacity	Compliant	Review the 2018, 2019 and 2020 AEMRs and coal production data identified that product coal has not exceeded 2.0 Mtpa during the audit period. 1,028,561 t of coal was produced during the 2021 (Jan-Oct) reporting period 1,148,962 t of coal was produced during the 2020 reporting period 1,358,987 t of coal was produced during the 2019 reporting period 1,711,271 t of coal was produced during the 2018 reporting period
Condition A2.1			
	The licence applies to the following premises: Muswellbrook Colliery Holding Coal Road Muswellbrook, NSW 2333 Area defined as "EPL Premises Boundary Table" in plan titled "Muswellbrook Coal Company Limited Muswellbrook Coal Mining Operations Premise Plan" dated 9-08-17, drawing number MC-A3-2082EPA Reference Number DOC17/398500-01.	Noted	
Condition A3.1			
	This licence applies to all other activities carried on at the premises, including ancillary activity - chemical storage facilities.	Noted	
Condition A4.1			
	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. In this condition the reference to "the licence application" includes a reference to: 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 b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.	Noted	
Discharges to Air and Water and Applications to Land			
Condition P 1.1			
	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.	Noted	
Condition P 1.2			
	The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or setting of limits for any application of solids or liquids to the utilisation area.	Noted	
Condition P 1.3			
	The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or setting of limits for the emission of noise from the premises.	Noted	

Condition Number	Condition	Compliance	Evidence and Comments																																																		
Limit Conditions																																																					
Condition L 1.1																																																					
	Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the POEO Act (1997).	Noted	No pollution to waters occurred during the audit period.																																																		
Condition L 2.1																																																					
	Noise from the premises must not exceed the noise limits presented in the table below.	Compliant	No noise exceedances occurred during the audit period.																																																		
	<table border="1"> <thead> <tr> <th>Location*</th> <th>Day LAeq(15min)</th> <th>Evening LAeq(15min)</th> <th>Night LAeq(15min)</th> <th>Night LA1(1min)</th> </tr> </thead> <tbody> <tr> <td>R1, R2, R3, R4</td> <td>35</td> <td>35</td> <td>35</td> <td>45</td> </tr> <tr> <td>R17, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R37, R38, R39</td> <td>36</td> <td>36</td> <td>36</td> <td>45</td> </tr> <tr> <td>R7, R14, R36</td> <td>38</td> <td>38</td> <td>38</td> <td>45</td> </tr> <tr> <td>R11, R12, R22</td> <td>39</td> <td>39</td> <td>39</td> <td>45</td> </tr> <tr> <td>R23R15, R21</td> <td>37</td> <td>37</td> <td>37</td> <td>45</td> </tr> <tr> <td>R13</td> <td>41</td> <td>41</td> <td>41</td> <td>45</td> </tr> <tr> <td>R18, R20</td> <td>45</td> <td>38</td> <td>37</td> <td>47</td> </tr> <tr> <td>R24, R42</td> <td>40</td> <td>40</td> <td>40</td> <td>45</td> </tr> <tr> <td>R25, R40, R41</td> <td>42</td> <td>42</td> <td>42</td> <td>45</td> </tr> </tbody> </table>			Location*	Day LAeq(15min)	Evening LAeq(15min)	Night LAeq(15min)	Night LA1(1min)	R1, R2, R3, R4	35	35	35	45	R17, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R37, R38, R39	36	36	36	45	R7, R14, R36	38	38	38	45	R11, R12, R22	39	39	39	45	R23R15, R21	37	37	37	45	R13	41	41	41	45	R18, R20	45	38	37	47	R24, R42	40	40	40	45	R25, R40, R41	42	42	42	45
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	Note: Receptor locations referred to in the table above are identified in Appendix C of Muswellbrook Shire Councils development consent S96(2) Modification to Muswellbrook Coal Mining Operations in Open Cut No. 1 & 2 205/2002/8, dated 26 October 2016, EPA Reference DOC16/551495																																																				
Condition L 2.2																																																					
	For the purpose of Condition 2.1: a) Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays; b) Evening is defined as the period from 6pm to 10pm; and c) Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sundays and Public Holidays.	Noted																																																			
Condition L 2.3																																																					
	To determine compliance with LAeq (15 minutes) limits specified in condition L2.1, noise from the premises must be measured at, or computed for, the most affected point on or within the residential boundary, or at the most affected point within 30m of the dwelling (rural situations) where the dwelling is more than 30m from the boundary. Where it can be demonstrated that direct measurement of noise from the premises is impractical, the EPA may accept alternative means of determining compliance. See Chapter 11 of the NSW Industrial Noise Policy. The modification factors presented in Section 4 of the NSW Industrial Noise Policy must be applied to the measured noise levels where applicable.	Compliant	The EPA has approved monitoring locations as specified in the EPL.																																																		
Condition L 2.4																																																					
	To determine compliance with the LA1 (1 minute) noise limits in condition L2.1, noise from the premises is to be measured at 1m for the dwelling façade. Where is can be demonstrated that direct measurement of noise from the premises is impractical, the EPA may accept alternative means of determining compliance. See Chapter 11 of the NSW Industrial Noise Policy.	Compliant	The EPA has approved monitoring locations as specified in the EPL.																																																		

Condition Number	Condition	Compliance	Evidence and Comments
Condition L 2.5			
	The noise emission limits identified in condition L2.1 apply under all meteorological conditions except for the following: a) Wind speeds greater than 3m/s at 10 metres above ground level; orb) Stability category F temperature inversion conditions and wind speeds greater than 2m/s at 10 metres above the ground level; orc) Stability category G temperature inversion conditions.	Noted	
Condition L 2.6			
	For the purpose of condition L2.5:a) Data recorded from the meteorological station identified as Point 11 in Condition P1.1 must be used to determine the meteorological conditions; andb) Temperature inversion conditions (stability category) are to be determined by the sigma-theta method referred to in Part E4 of Appendix E to the NSW Industrial Noise Policy.	Compliant	The AEMRs reference that the Meteorological Monitoring Station (MMS) provides sigma theta and stability class.
Blasting			
Condition L 3.1			
	The airblast overpressure level from blasting operations in or on the premises must not exceed: 115 dB (Lin Peak) for more than 5% of the total number of blasts during each reporting period; at either monitoring point 3, 4, 5 or 6 in Condition P1.2.	Complaint	There have been no exceedances of blast overpressure criteria during the audit period and no blast have exceeded 115 dB for more than 5% of the total number of blasts during each reporting period throughout the audit period.
Condition L 3.2			
	The airblast overpressure level from blasting operations in or on the premises must not exceed: 120 dB (Lin Peak) at any time; at either monitoring point 3, 4, 5 or 6 in Condition P1.2.	Compliant	No exceedances of the blast criteria occurred during the audit period.
Condition L 3.3			
	The ground vibration peak particle velocity from blasting operations carried out in or on the premises must not exceed: 5mm/s for more than 5% of the total number of blasts carried out on the premises during each reporting period; at either monitoring point 3, 4, 5 or 6 in Condition P1.2.	Compliant	No exceedances of the blast criteria occurred during the audit period.
Condition L 3.4			
	The ground vibration peak particle velocity from blasting operations carried out in or on the premises must not exceed: 10 mm/s at any time; at either monitoring point 3, 4, 5 or 6 in Condition P1.2.	Compliant	No exceedances of the blast criteria occurred during the audit period.
Condition L3.5			
	Offensive blast fume must not be emitted from the premises. Definition: Offensive blast fume means post-blast gases from the detonation of explosives at the premises that by reason of their nature, duration, character or quality, or the time at which they are emitted, or any other circumstances 1. are harmful to (or likely to be harmful to) a person that is outside the premises from which it is emitted, or 2. interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premises from which it is emitted.	Compliant	Community complaints relating to blasting were recorded during the audit period. Complaints could smell and see visible plumes following the blast. All blast results complied with allowable limits. Information regarding the complaint was provided to the EPA where required. Result of the blasts were provided to MSC, but no contact details of the complaints were given.
Operating Conditions			
Condition O 1.1			
	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	A review of the monitoring results and site inspection confirmed compliance with this condition.

Condition Number	Condition	Compliance	Evidence and Comments
Condition O 2.1			
	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	The site inspection did not identify any poorly maintained equipment or improperly operated equipment associated with the licenced activity. The maintenance planning system SAP was also reviewed to ensure maintenance was planned, coordinated and conducted in a timely manner.
Condition O 3.1			
	The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	Complaint	The site has an Air Quality Management Plan that includes dust control procedures. Dust emissions were adequately controlled at the site as observed during the site inspection.
Condition O 3.2			
	Activities occurring in or on the premises must be carried out in a manner that will minimise the generation, or emission from the premises, of wind-blown or traffic generated dust.	Compliant	As above.
Condition O 3.3			
	All trafficable areas, coal storage areas and vehicle manoeuvring areas in or on the premises must be maintained, at all times, in a condition that will minimise the generation, or emission from the premises, of wind-blown or traffic generated dust.	Compliant	As above.
Emergency response			
Condition O 4.1			
	The licensee must maintain, and implement as necessary, a current Pollution Incident Response Management Plan (PIRMP) for the premises. The licensee must keep the incident response plan on the premises at all times. The incident response plan must document systems and procedures to deal with all types of incidents (e.g. spills, explosions or fire) that may occur at the premises or that may be associated with activities that occur at the premises and which are likely to cause harm to the environment. The licensee must develop a Pollution Incident Response Management Plan in accordance with the requirements in Part 5.7A of the Protection of the Environment Operations (POEO) Act 1997 and POEO regulations.	Compliant	A PIRMP has been prepared for the development and meets the requirements of this condition. Printed copies were sighted during the audit and the plan is available on the website.
Other operating conditions			
Condition O 5.1			
	All above-ground tanks containing material that is likely to cause environmental harm must be bunded or have an alternative spill containment system in place.	Compliance	During the site inspection self-bunded tanks were identified.
Monitoring Records			
Condition M 1.1			
	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.	Complaint	Monitoring results are recorded and monthly results are available on the MCC website. Monitoring results are reported annually in the AEMR and Annual Return.
Condition M 1.2			
	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	Monitoring results for the past 4 years are available on the MCC website.
Condition M 1.3			
	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	Monitoring results in the audit period contained all relevant information

Condition Number	Condition	Compliance	Evidence and Comments																																
Requirement to monitor concentration of pollutants discharged																																			
Condition M 2.1																																			
	For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling methods, units of measure, and sample at the frequency, specified opposite in the other columns:																																		
Condition M 2.2																																			
	<p>POINT 7,8</p> <table border="1" data-bbox="498 583 1299 646"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>PM10</td> <td>micrograms per cubic metre</td> <td>Continuous</td> <td>AM-22</td> </tr> </tbody> </table> <p>POINT 9,10</p> <table border="1" data-bbox="498 709 1299 772"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Hydrogen Sulfide</td> <td>parts per hundred million</td> <td>Continuous</td> <td>Special Method 2</td> </tr> </tbody> </table> <p>POINT 13</p> <table border="1" data-bbox="498 835 1299 898"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>PM10</td> <td>micrograms per cubic metre</td> <td>Continuous</td> <td>Special Method 1</td> </tr> </tbody> </table> <p>POINT 15,16</p> <table border="1" data-bbox="498 961 1299 1024"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Sulphur dioxide</td> <td>parts per hundred million</td> <td>Continuous</td> <td>Special Method 2</td> </tr> </tbody> </table> <p>Note: Special Method 1 requires the Licensee to undertake the monitoring of PM₁₀ concentration with SA Environmental MP101M in strict accordance with the manufacturer's operating manual and all instrument specifications.</p>	Pollutant	Units of measure	Frequency	Sampling Method	PM10	micrograms per cubic metre	Continuous	AM-22	Pollutant	Units of measure	Frequency	Sampling Method	Hydrogen Sulfide	parts per hundred million	Continuous	Special Method 2	Pollutant	Units of measure	Frequency	Sampling Method	PM10	micrograms per cubic metre	Continuous	Special Method 1	Pollutant	Units of measure	Frequency	Sampling Method	Sulphur dioxide	parts per hundred million	Continuous	Special Method 2	Non-Compliant	<p>2018-2019. Missing data from Points 7,8, 9, 10, 13, 15, 16. periodically throughout the reporting period due to equipment calibration or equipment malfunction. Broken equipment has since been replaced while a contractor is engaged to maintain equipment. A licence variation has been submitted to vary the type of equipment being used at Point 13 and to improve the data capture rates</p> <p>2019-2020 Missing data from monitoring points 7,8,9, 10, 13, 15, 16 periodically throughout the reporting period due to equipment calibration or equipment malfunction. Broken equipment has since been replaced while a contractor is engaged to maintain equipment.</p>
Pollutant	Units of measure	Frequency	Sampling Method																																
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Testing methods – concentration limits																																			
Condition M 3.1																																			
	<p>Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:</p> <p>(a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or</p> <p>(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</p> <p>(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</p> <p>Note: The Protection of the Environment Operations (Clean Air) Regulation 2010 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".</p>	Compliant	The AEMRs reference any relevant guidelines relating to the sampling of that pollutant.																																

Condition Number	Condition	Compliance	Evidence and Comments																																			
Weather monitoring																																						
Condition M 4.1																																						
	<p>"For each monitoring point specified in the table below the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sampling at the frequency, specified opposite in the other columns.</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Units of Measure</th> <th>Frequency</th> <th>Averaging Period</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Wind direction @ 10 metres</td> <td>degrees</td> <td>Continuous</td> <td>15 minute</td> <td>AM-2 & AM-4</td> </tr> <tr> <td>Wind speed @ 10 metres</td> <td>m/s</td> <td>Continuous</td> <td>15 minute</td> <td>AM-2 & AM-4</td> </tr> <tr> <td>Temperature @ 2 metres</td> <td>degrees celcius</td> <td>Continuous</td> <td>15 minutes</td> <td>AM-4</td> </tr> <tr> <td>Temperature @ 10 metres</td> <td>degrees celcius</td> <td>Continuous</td> <td>15 minutes</td> <td>AM-4</td> </tr> <tr> <td>Rainfall</td> <td>mm</td> <td>Continuous</td> <td>Daily</td> <td>AM-4</td> </tr> <tr> <td>Sigma theta @ 10 metres</td> <td>degrees</td> <td>Continuous</td> <td>15 minutes</td> <td>AM-2 & AM-4</td> </tr> </tbody> </table>	Parameter	Units of Measure	Frequency	Averaging Period	Sampling Method	Wind direction @ 10 metres	degrees	Continuous	15 minute	AM-2 & AM-4	Wind speed @ 10 metres	m/s	Continuous	15 minute	AM-2 & AM-4	Temperature @ 2 metres	degrees celcius	Continuous	15 minutes	AM-4	Temperature @ 10 metres	degrees celcius	Continuous	15 minutes	AM-4	Rainfall	mm	Continuous	Daily	AM-4	Sigma theta @ 10 metres	degrees	Continuous	15 minutes	AM-2 & AM-4	Compliant	<p>The 2018, 2019 and 2020 AEMRs specify that the " The principal MMS provides 10m elevation wind speed and direction, 2m and 10m elevation air temperature, rainfall, humidity, barometric pressure, sigma theta and stability class".</p> <p>2018-2019 Data recovery for the monitoring period was 99.9% for the weather station. The wind sensor stopped working during September 2019 resulting in minimal wind data for September. The wind sensor was replaced</p> <p>2019-2020 Data recovery for the monitoring period was 97.2% for the weather station. The batteries stopped holding their charge during May resulting in minimal weather data for May. The batteries were replaced.</p>
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Recording of pollution complaints																																						
Condition M 5.1																																						
	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.	Compliant	Sighted complaints register for the audit period on the MCC website.																																			
Condition M 5.2																																						
	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.	Compliant	The complaints register includes all of the requirements of this condition.																																			
Condition M 5.3																																						
	The record of a complaint must be kept for at least 4 years after the complaint was made.	Compliant	Complaints register from the last six years is available on the website.																																			
Condition M 5.4																																						
	The record must be produced to any authorised officer of the EPA who asks to see them.	Noted																																				
Telephone complaints line																																						
Condition M 6.1																																						
	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	Muswellbrook Coal provides 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 vehicles or mobile plant. The Community Complaints Hotline Number is 1800 600 205																																			
Condition M 6.2																																						
	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.	Complaint	The Community Complaints Hotline Number is advertised on the MCC website.																																			
Condition M 6.3																																						
	The preceding two conditions do not apply until 3 months after the date of this licence.	Noted																																				

Condition Number	Condition	Compliance	Evidence and Comments												
Blasting															
Condition M 7.1															
	<p>To determine compliance with condition(s) L3.1, L3.2, L3.3 and L3.4:</p> <p>a) Airblast overpressure and ground vibration levels must be measured and electronically recorded for monitoring points 3, 4, 5 and 6 for the parameters specified in column 1 of the table below; and</p> <p>b) The licensee must use the units of measure, sampling method, and sample at the frequency specified opposite in the other columns.</p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Units of measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Airblast Overpressure</td> <td>Decibels (Linear Peak)</td> <td>All blasts</td> <td>Australian Standard AS 2187.2-2006</td> </tr> <tr> <td>Ground Vibration Peak Particle Velocity</td> <td>millimetres/second</td> <td>All blasts</td> <td>Australian Standard AS 2187.2-2006</td> </tr> </tbody> </table>	Parameter	Units of measure	Frequency	Sampling Method	Airblast Overpressure	Decibels (Linear Peak)	All blasts	Australian Standard AS 2187.2-2006	Ground Vibration Peak Particle Velocity	millimetres/second	All blasts	Australian Standard AS 2187.2-2006	Non Compliant	<p>All relevant data was captured during the audit period except in 2019-2020 reporting period. Four blast monitors were operational throughout the reporting period, with 99.5% of data captured during the reporting period.</p> <p>Results were not collected at 99 Queen St on the 24th of February 2020 and at Queen St on 25th September 2020 due to the trigger monitor causing a reset of the blast monitor at the time of the blast and an automated retrieve all data process occurring at the time of the blast.</p>
Parameter	Units of measure	Frequency	Sampling Method												
Airblast Overpressure	Decibels (Linear Peak)	All blasts	Australian Standard AS 2187.2-2006												
Ground Vibration Peak Particle Velocity	millimetres/second	All blasts	Australian Standard AS 2187.2-2006												
Other monitoring and recording conditions															
Condition M 8.1															
	The licensee must undertake monthly 15 minute attended night time noise monitoring. The monitoring must be undertaken by an appropriately qualified and experienced acoustic consultant to determine compliance with the night time noise LAeq(15 min) and LA1(1min) limits in Condition L2.1	Compliant	Noise monitoring is undertaken by Spectrum Acoustics and complies with this condition.												
Condition M 8.2															
	The licensee must record the average PM10 concentration at Monitoring Points 7 and 8 at intervals of 10 minutes. This data must be made available upon request by any Authorised Officer of the EPA who asks to see them.	Compliant	Sighted copy of PM10 monitoring data results.												
Condition M 8.3															
	The licensee must record:a) average PM10 concentration at monitoring point 13 at intervals of on hour;b) average sulphur dioxide concentrations at monitoring points 15 and 16 at intervals of one hour;c) average hydrogen sulphide concentrations at monitoring points 9 and 10 at intervals of 30 minutes; andd) this data must be made available upon request by an Authorised Officer of the EPA who asks to see them.	Compliant	All PM10 units measure 10 minute and one hour intervals.												
Annual return documents															
Condition R 1.1															
	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: 1. a Statement of Compliance; 2. a Monitoring and Complaints Summary;3. a Statement of Compliance - Licence Conditions;4. a Statement of Compliance - Load Based Fee;5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan;6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and7. a Statement of Compliance - Environmental Management Systems and Practices. At 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	2018, 2019 and 2020 Annual Returns for the audit period provided as evidence and each document contains the required details.												
Condition R 1.2															
	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.	Noted													

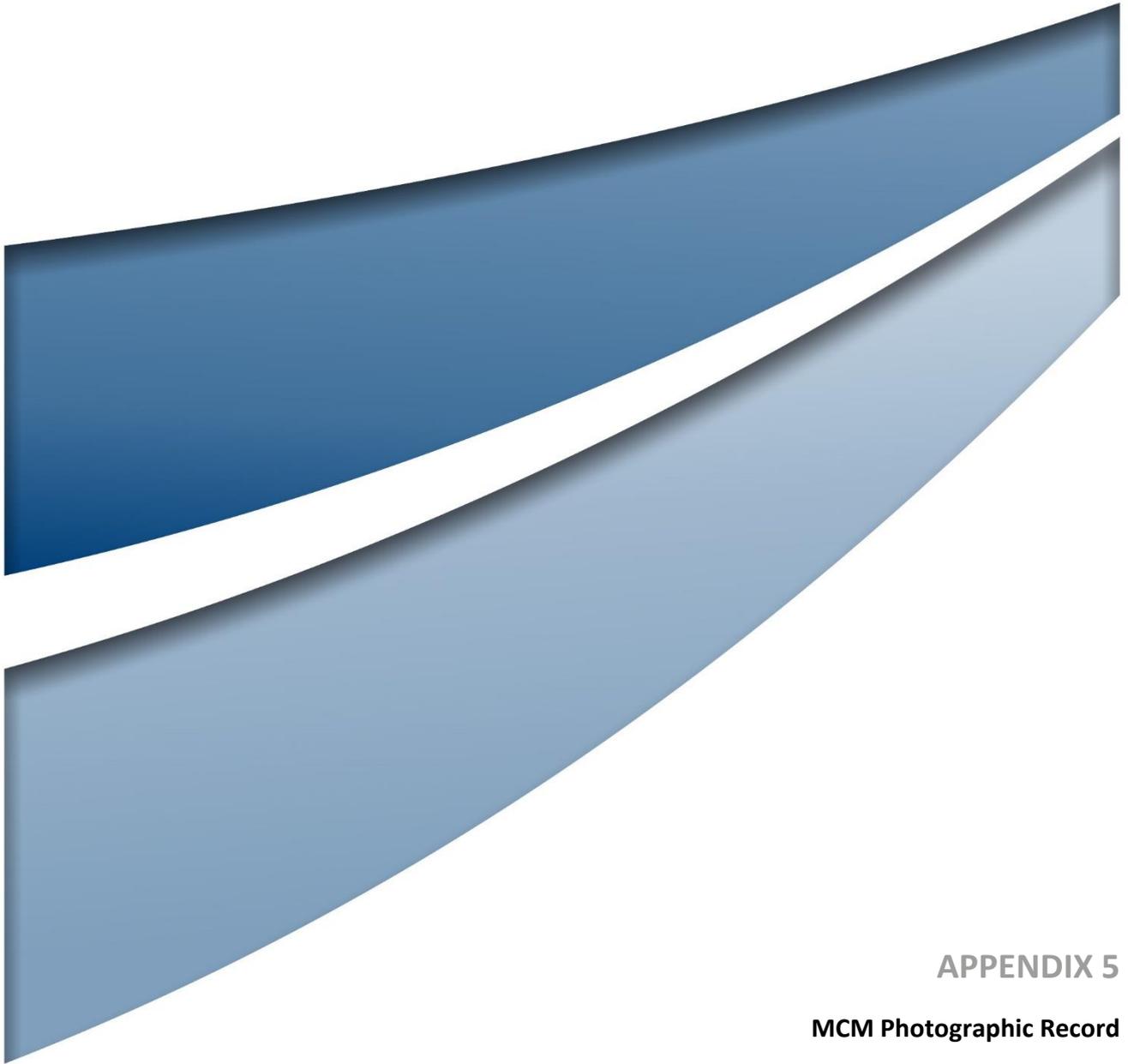
Condition Number	Condition	Compliance	Evidence and Comments
Condition R 1.3			
	Where this licence is transferred from the licensee to a new licensee: (a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and (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. Note: An application to transfer a licence must be made in the approved form for this purpose.	Not Triggered	This has not occurred during the audit period.
Condition R 1.4			
	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: (a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or (b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.	Not Triggered	This has not occurred during the audit period.
Condition R 1.5			
	The Annual Return for the reporting period must be supplied to the EPA via eConnect EPA or 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').	Compliant	Sighted lodgement details for the 2018, 2019 and 2020 Annual Returns Lodgement Details 2018: 9 January 2019 2019: 21 January 2020 2020: 14 January 2021
Condition R 1.6			
	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.	Compliant	Copies of the Annual Returns are available on the MCC internal server.
Condition R 1.7			
	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	Statement of Compliance sighted for the 2018, 2019 and 2020 Annual Return and meets the requirements of this condition.
Notification of environmental harm			
Condition R 2.1			
	Notifications must be made by telephoning the Environment Line service on 131 555.	Noted	
Condition R 2.2			
	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred. Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.	Compliant	No incidents causing or threatening material harm has occurred during the audit period.
Written report			
Condition R 3.1			
	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	Compliant	As above.

Condition Number	Condition	Compliance	Evidence and Comments
	(whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.		
Condition R 3.2			
	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.	Noted	
Condition R 3.3			
	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.	Compliant	As above.
Condition R 3.4			
	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	None requested during the audit period.
Other reporting conditions			
Condition R 4.1			
	A noise compliance assessment report must be submitted to EPA on an annual basis with the Annual Return as set out in Condition R1. The report must be prepared by an appropriately qualified and experienced acoustic consultant and determine compliance with the night time noise limits in Condition L2.1.	Compliant	Sighted annual noise compliance assessment reports for 2018, 2019 and 2020 by Global Acoustics.
Condition R 4.2			
	The licensee must report any exceedance of the licence blasting limits to the regional office of the EPA as soon as practicable after the exceedance becomes known to the licensee or to one of the licensee's employees or agents.	Not Triggered	No blasting exceedances during the reporting period.
Condition R 4.3			
	The results of the blast monitoring required by condition M7.1 must be submitted to the EPA at the end of each reporting period.	Compliant	Reported in the AEMRs.
Condition R 4.4			
	The licensee must prepare and submit quarterly spontaneous combustion management reports to EPA. A copy of each quarterly report must be forwarded to the regional office of EPA no later than two (2) months after the quarterly period being reported. The quarterly report must include but not be limited to the following: a) A monthly summary of actions and procedures undertaken to prevent or control spontaneous combustion at the site b) An assessment of the effectiveness of the actions and procedures undertaken c) Spontaneous combustion areas capped in square meters d) Spontaneous combustion areas mined out in square meters e) Areas under water infusion	Compliant	Quarterly spontaneous combustion reports up to 2019 have been prepared during the audit period and are available on the MCC website and adequately address the requirements of this condition. During 2020 and 2021 monthly reports were then submitted. B. York explains the quarterly reports are just the monthly reports compiled into one document.

Condition Number	Condition	Compliance	Evidence and Comments																				
	f) Map of the approximate location of the areas subject to spontaneous combustion, areas capped, areas mined out and areas under water infusion. g) Number of complaints received in relation to spontaneous combustion																						
General Conditions																							
Condition G 1.1																							
	A copy of this licence must be kept at the premises to which the licence applies.	Compliant	Printed copies of the licence sighted and electronic version available on the website.																				
Condition G 1.2																							
	The licence must be produced to any authorised officer of the EPA who asks to see it.	Noted																					
Condition G 1.3																							
	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	Noted																					
Spontaneous Combustion Emissions Study																							
Condition U 1.1																							
	The licensee must undertake a 12 month continuous monitoring program to investigate whether air emissions from spontaneous combustion of coal at the premises are exceeding EPA's air impact assessment criteria as identified in the 'Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales' (Approved Methods). The monitoring program must commence by 5 February 2018 and include: a) continuous monitoring of sulfur dioxide at Points 15 and 16 in accordance with the EPA's Approved Methods, unless otherwise agreed in writing by the EPA; b) continuous monitoring of hydrogen sulfide at Points 9 and 10 with equipment able to detect and monitor hydrogen sulfide below the odour threshold (0.008ppm has been recognised as the level of detection of hydrogen sulfide odours) in accordance with the EPA's Approved Methods, unless otherwise agreed in writing by the EPA; and c) continuous monitoring of PM10 at Points 7, 8 and 13, in accordance with the EPA's Approved Methods, unless otherwise agreed in writing by the EPA; and d) reporting on the licensee's website of hourly averages and daily averages within 14 days of capture of a month's worth of data.	Compliant	The spontaneous combustion study has been undertaken and finalised during the audit period. The monitoring period was between 5 February 2018 to 4 February 2019 inclusive and included the measurement of: <ul style="list-style-type: none"> • SO₂ at two locations; referred to as Points 15 and 16. • H₂S at two locations; referred to as Points 9 and 10. • PM₁₀ at three locations; referred to as Points 7, 8 and 13. 																				
Condition U 1.2																							
	The licensee must provide the EPA quarterly reports within one (1) month of completion of each quarter of monitoring. The reports must include a summary table and graphical illustration of data averages as described in the table below for the points referenced in the adjacent columns. The report must also include an analysis of results against EPA's air impact assessment criteria identified in the Approved Methods, and the National Environment Protection Measure (NEPM) standards and goals. <table border="1" data-bbox="451 1587 1294 1717"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>Averaging Period</th> <th>Averaging Period</th> <th>Point Number</th> </tr> </thead> <tbody> <tr> <td>Hydrogen sulfide</td> <td>30 minutes</td> <td>1 hour</td> <td>24 hours</td> <td>9 & 10</td> </tr> <tr> <td>Sulfur dioxide</td> <td></td> <td>1 hour</td> <td>24 hours</td> <td>15 & 16</td> </tr> <tr> <td>PM10</td> <td></td> <td>1 hour</td> <td>24 hours</td> <td>7, 8 & 13</td> </tr> </tbody> </table>	Pollutant	Averaging Period	Averaging Period	Averaging Period	Point Number	Hydrogen sulfide	30 minutes	1 hour	24 hours	9 & 10	Sulfur dioxide		1 hour	24 hours	15 & 16	PM10		1 hour	24 hours	7, 8 & 13	Compliant	Quarterly spontaneous combustion reports have been prepared during the audit and adequately address the requirements of this condition.
Pollutant	Averaging Period	Averaging Period	Averaging Period	Point Number																			
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PM10		1 hour	24 hours	7, 8 & 13																			
Condition U 1.3																							
	For the duration of the spontaneous combustion study in Condition U1.1 the licensee must: Demonstrate ongoing performance of the Serinus 51 analyser and SO ₂ scrubber through regular calibration records, linearity checks and monitor performance reports and/or comparison of results against a co-located instrument.	Compliant	The Spontaneous Combustion Study has been undertaken and finalised during the audit period. The monitoring period was between 5 February 2018 to 4 February 2019 inclusive with a capture rate of 96 %. No contingency is feasible as monitoring equipment is required.																				

Condition Number	Condition	Compliance	Evidence and Comments
	<p>Conduct regular audits if the entire measurement process from sample inlet to data acquisition system.</p> <p>Meet a minimum data capture of 90%. If the proponent cannot meet 90%, the EPA must be informed.</p> <p>The proponent should provide a contingency plan in the case where monitoring cannot occur due to, but not limited to, equipment failure, logging issues, poor monitor performance.</p> <p>Calibrate, zero and span the analyser for SO₂ and H₂S using gas standards that are representative of the concentration range expected to be measured during the study i.e. 10-50 ppb, the calibration must be performed across the entire system, including the scrubber.</p> <p>The instrument performance must, at a minimum, meet all specifications of AS3580.8.1 (1990) for H₂S, and AS3580.4.1 (2008) for SO₂. Upon request Instrument performance reports, must be made available to the Environment Protection Authority for review.</p>		
Condition U 1.4			
	<p>The licensee must develop an odour model which is prepared by an appropriately qualified and experienced person and developed in accordance with the EPA's approved methods. The model must:</p> <ul style="list-style-type: none"> a) use the outputs of 12 months of monitoring data collected in Condition U1.1; b) consider the range of meteorological conditions experienced during the study period; and c) consider any other monitoring required to develop the model. 	Compliant	<p>Jacobs was engaged to develop the odour model. The odour dispersion model was based on one year of representative meteorological data and was prepared using the procedures outlined in the EPA's "Approved Methods for the Modelling and Assessment of Air Pollutants in NSW" (EPA 2016).</p>
Condition U 1.5			
	<p>Within three (3) months of completion of monitoring in accordance with Condition U1.1 and U1.4 the licensee must provide a report to the EPA Director Hunter prepared by a suitably qualified and experienced person. The report must include but is not limited to:</p> <ul style="list-style-type: none"> a) a summary table and graphical illustration of data averages as described in the table below for the points referenced in the adjacent columns; b) a description of the monitoring study, methods and odour modelling; c) an analysis of results against EPA's Air Impact Assessment Criteria and National Environment Protection Measure (NEPM) standards and goals; d) an analysis of results against community complaints about odours and dust; e) odour model outputs including discussion of the outputs of the odour modelling including any particular olfactory surveys or odour surveys that may have been undertaken to compare monitoring results with complaints; f) an analysis of meteorological conditions during the monitoring period, including temperature inversions, and a discussion of how meteorological conditions may have influenced sampling results; g) details of actions taken by the licensee in response to any air quality monitoring results indicating exceedance of the EPA's air quality impact criteria or NEPM goals; h) details of actions taken by the licensee to manage spontaneous combustion during the monitoring period including any changes that were developed as a result of the Independent Audit detailed in Condition E2; and i) any recommendations, with particular attention of mitigating impacts if monitoring and modelling indicate impacts above the EPA's air impact assessment criteria. 	Compliant	<p>The report was submitted to EPA on the 29 April 2019.</p> <p>Each requirement of this condition a – i is addressed in the report as outlined below:</p> <ul style="list-style-type: none"> a) Section 4.2 and Section 5 b) Section 5 c) Section 4 d) Section 4.3 e) Section 5 f) Section 4.1 and Section 5.3 g) Section 4.2 h) Section 2 i) Section 6

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Pollutant & Monitoring Point	Averaging Period	Averaging Period	Averaging Period	Averaging Period																			
Hydrogen sulfide Points 9, 10	30 minutes	1 hour	24 hours	1 year																			
Sulfur dioxide Points 15, 16		1 hour	24 hours	1 year																			
PM10 Points 7, 8 & 13		1 hour	24 hours	1 year																			
Special Conditions																							
Condition E 1.1																							
	The licensee must engage an independent auditor with appropriate skills and experience in spontaneous combustion management to review the licensee's management and mitigation of spontaneous combustion against Best Practice. a) The licensee must provide a report in writing to the EPA Director Hunter by 7 May 2018 that includes the details of Best Practice Literature that was used in the audit, and any recommendations for improvements in implementation of the monitoring and the long-term management of spontaneous combustion.	Compliant	Verified by previous audit outside audit period																				
Condition E 2.1																							
	From September 1 2017 to 30 November 2017 inclusively, the licensee must electronically record the following information:1) Daily Total Tonnes Moved; and2) Timestamped PM10 concentrations from upwind and downwind of the premises, recorded in ten minute intervals at monitoring points: 7 and 8.For the purpose of this condition 'Total Tonnes Moved' is calculated as: Total Tonnes Moved = Run of Mine (ROM) coal moved + Total Overburden Moved (TOM)Where: a) ROM must be expressed in tonnes; and b) TOM must be expressed in tonnes and must be determined by multiplying bank cubic metres of overburden moved by a density of 2.4 tonnes per bank cubic metre. TOM must include rehandled overburden.	Compliant	Verified by previous audit outside audit period																				
Condition E 2.2																							
	The licensee must be provided an electronic set of Excel spreadsheets with a separate tab for each of the items identified in Condition E2.1 to the EPA at hunter.region@epa.nsw.gov.au by 19 January 2018.	Compliant	Verified by previous audit outside audit period																				



APPENDIX 5

MCM Photographic Record

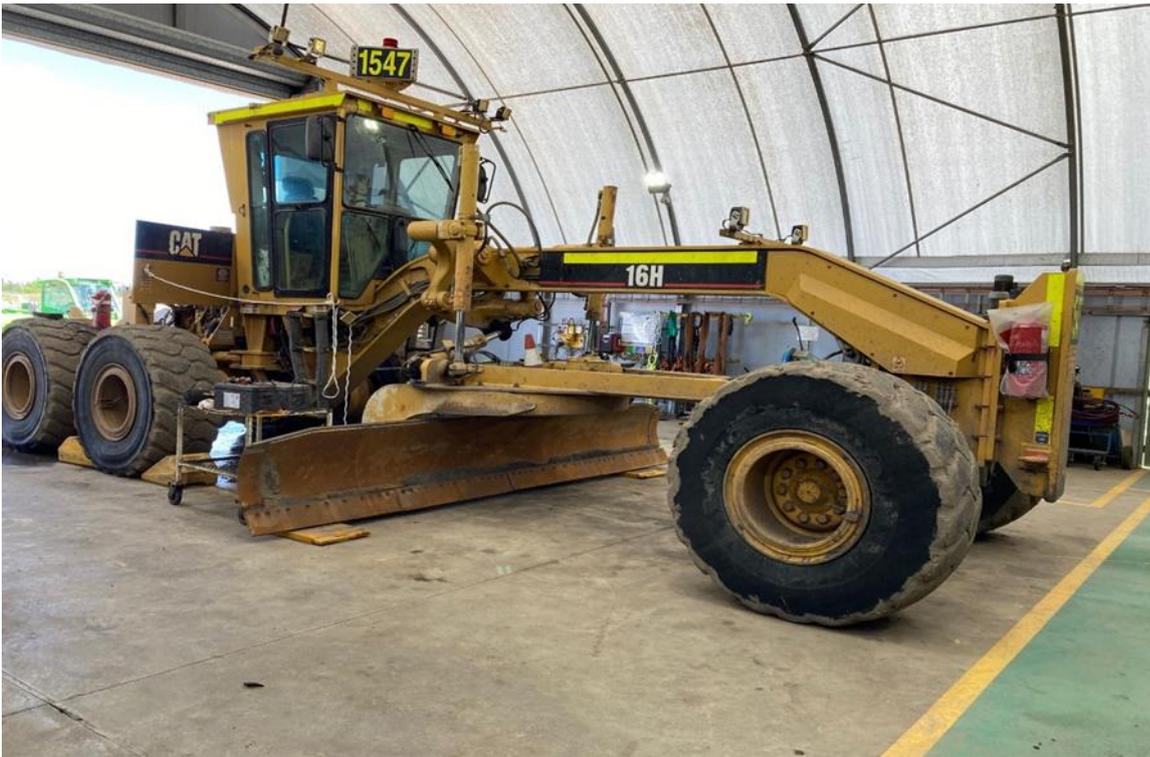


Photo 1 – Grader undergoing servicing and/or repairs in the workshop



Photo 2 – Location of existing identified Aboriginal Archaeology site



Photo 3 – Water carts located in Open Cut Mine 1 controlling minor spontaneous combustion



Photo 4 – Historic Rehab in Void 3 (pasture area)



Photo 5 – Historic Rehab (woodland area)



Photo 6 – Extensive rilling and scouring in areas of completed rehabilitation in Open Cut 2



Photo 7 – Areas of unshaped landform in Open Cut 2



Photo 8 – Refuelling area outside workshop



Photo 9 – Unattended hydrocarbon spill located in refuelling area



Photo 10 – Drain blockage located in the fuel farm bunded area filling with hydrocarbon contaminated water



Photo 11 – Oily water separator located near the wheel washing station appeared to be approaching capacity



Photo 12 – Existing bioremediation area

