AECOM

Anglo Coal (Drayton Management) Pty Limited

25-May-2016

Independent Environmental Audit

Drayton Coal Mine

Independent Environmental Audit

Drayton Coal Mine

Client: Anglo Coal (Drayton Management) Pty Limited

ABN: 67002028257

Prepared by

AECOM Australia Pty Ltd
17 Warabrook Boulevard, Warabrook NSW 2304, PO Box 73, Hunter Region MC NSW 2310, Australia
T +61 2 4911 4900 F +61 2 4911 4999 www.aecom.com
ABN 20 093 846 925

25-May-2016

Job No.: 60447677

AECOM in Australia and New Zealand is certified to the latest version of ISO9001, ISO14001, AS/NZS4801 and OHSAS18001.

Quality Information

Document Independent Environmental Audit

Ref 60447677

Date 25-May-2016

Prepared by Jessica Miller

Reviewed by Ian Richardson

Revision History

Revision	Revision Date	Details	Authorised	
			Name/Position	Signature
A	02-Dec-15	Draft for client review	James McIntyre Associate Director - Environment	
B	15-Jan-2016	Draft for client review – updated with additional audit evidence	James McIntyre Associate Director - Environment	
C	29-Jan-2016	Draft - updated with additional audit evidence	James McIntyre Associate Director - Environment	
D	23-Feb-2016	Final	James McIntyre Associate Director - Environment	
E	25-May-2016	Final after regulator review	James McIntyre Associate Director - Environment	

This page has been left blank intentionally.

Table of Contents

List of Tables

Independent Audit Certification Form

Independent Audit Certification Form	
Development Name	Drayton Mine
Development Consent No.	Project Approval 06_0202 and Development Application 106-04-00
Description of Development	Open cut coal operation located approximately 13km south of Muswellbrook in the Upper Hunter Valley of New South Wales. Operations commenced in 1983.
Development Address	Drayton Coal Mine, Thomas Mitchell Drive, Muswellbrook New South Wales 2333
Operator	Anglo American (Drayton Management) Pty Ltd
Operator Address	PMB 9, Muswellbrook, NSW, 2333
Independent Audit	
Title of Audit	Independent Environmental Audit – Drayton Coal Mine

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:

- 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;
- The findings of the audit are reported truthfully, accurately and completely;
- I have exercised due diligence and professional judgement in conducting the audit;
- 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 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 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);
- 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 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.

Note.

a. The Independent Audit is an 'environmental audit' for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, $1 million and for an individual, $250,000.

b. The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents—maximum penalty 2 years imprisonment or $22,000, or both).

Signature	
Name of Lead / Principal Auditor	Ian Richardson
Address	17 Warabrook Boulevard, Warabrook, NSW 2304
Email Address	Ian.Richardson@aecom.com
Auditor Certification (if relevant)	Exemplar Global Lead Auditor
Date:	25 May 2016

Executive Summary

AECOM Australia Pty Limited has been commissioned by Anglo Coal (Drayton Management) Pty Limited to conduct the Independent Environmental Audit for Drayton Coal Mine in accordance with the Project Approval 06_0202 (as modified) and the Development Application 106-04-00.

This audit was undertaken generally in accordance with *AS/NZS ISO 19011:2003 – Guidelines for quality and/or environmental management systems auditing*.

This audit covers the period between 28 October 2012 and 2 November 2015, and includes:

- Comments on Anglo Coal (Drayton Management) Pty Limited's compliance against the conditions of Project Approval 06_0202 (as modified), Development Application 106-04-00, Environment Protection Licence 1323, and other key licences, approvals and supporting documents such as environmental management plans and subsidence management plans (**Section 3.0**);
- An assessment of Anglo Coal's environmental management and performance (**Section 4.0**) and the adequacy of relevant environmental management plans at Drayton Coal Mine (**Section 5.0**); and
- A list of recommendations flowing from the findings of this audit (**Section 6.0**).

This audit was conducted by Ian Richardson, Jessica Miller, Michael Allan, David Rollings and Dee Murdoch, and consisted of a detailed desktop review of documentation, interviews with key Anglo Coal staff and a site visit of Drayton Coal Mine. Additional desktop reviews were conducted prior to and following the site inspection.

Approximately 1,800 conditions were audited, resulting in a total of eighty-seven (87) non-compliances. Eleven (11) are categorised as non-compliant: four (4) with a risk level of high; three (3) with a risk level of medium (all seven (7) related to a diesel spill in 2014 - see below); and four (4) with a risk level of low. The remaining seventy-six (76) are categorised as administrative non-compliances. The commitments in the Project Approval 06_0202, Development Application 106-04-00, EPL 1323, Coal Leases 229 and 395 and the Mining Lease 1531 were audited, with a total of twenty-seven (27) non-compliances. Sixty (60) non-compliances were found against Anglo Coal's supporting management plans. Additionally there were twelve (12) recommendations from the previous 2012 audit that related to issues of compliance, which still had not been considered or actioned by the Site.

In January 2014 a significant diesel spill occurred at the Site, and at the time was identified as constituting either a potential or threatened material environmental harm incident under Section 147 of the *Protection of the Environment Operations Act 1997*. The spill of diesel was contained onsite, and was subsequently remediated to the satisfaction of the EPA. The EPA also issued a penalty notice and a caution to the Site in relation to the spill. Preventative mechanisms have since been installed at the location of the diesel spill to prevent future reoccurrence of the same. Site inspections during this audit indicated improved and compliant management procedures and practices designed to prevent a reoccurrence. During this audit, seven (7) of the non-compliances were identified as being related to the spill. Four (4) of these were categorised with a risk level of high and three (3) were categorised with a risk level of medium according to the risk levels stated in Table 3.

Furthermore, ten (10) administrative non-compliances relate to the Site's compliance against the conditions of Development Application 106-04-00, which specifically relates to the approved Antiene rail activities. It is noted that this consent is considered to be outdated, and the legal pathway for its relinquishment has been the subject of discussion over the last decade with the Department of Planning and Environment. This is due to two key factors in particular, including:

- The conditions of Development Application 106-04-00 originally related to two active parties, one of which is no longer operating under the terms of conditions of Development Application 106-04-00; and
- In some instances, the conditions of the previous Development Application 106-04-00 are inconsistent with the conditions of the more recent Project Approval 06_0202.

Whilst the ideal circumstance for the relinquishment of Development Application 106-04-00 has not yet come into fruition, it is envisaged that this situation is likely to be resolved over following two years.

The site is operating generally in accordance with predictions made in the 2007 Environmental Assessment and the 2000 Environmental Impact Statement for the site. Some general observations were made by the auditors during the site inspection where environmental management could be improved.

A consolidated list of recommendations stemming from the Project Approval 06_0202 (as modified) and environmental management plans can be found in **Section 6.0**. Individual non-compliances are outlined in more detail in **Section 3.0**. At the time of the audit, Anglo Coal staff were made aware of many of these identified non-compliances against conditions of Project Approval 06_0202 (as modified).

1.0 Introduction

1.1 Background

AECOM Australia Pty Ltd (AECOM) was commissioned by Anglo Coal (Drayton Management) Pty Limited (Anglo Coal) to undertake an Independent Environmental Audit (IEA) for Drayton Coal Mine in accordance with Condition 6, Schedule 5 of the Project Approval 06_0202 (as modified), and Condition 7.1 of Development Application 106-04-00.

The audit was undertaken consistent with the relevant planning approval conditions for Drayton Coal Mine and focused on verification of the site's compliance against key licences, approvals and supporting documents such as management plans. This audit covers the period 28 October 2012 to 2 November 2015.

1.2 Site Description

Drayton Coal Mine is an open cut coal operation located approximately 13 km south of Muswellbrook in the Upper Hunter Valley of New South Wales. The Mine is owned by Anglo American and joint venture partners Mitsui Coal, NCE Australia, Daesung Australia and Hyundai Australia. The mine is managed and operated by Anglo American. Drayton Coal Mine commenced operation in 1983 and uses both dragline and truck and shovel to produce thermal coal for export markets.

Project Approval 06_0202 was granted on 1 February 2008 which allows Drayton Coal Mine to continue mining operations until 2017 at a coal extraction rate of 8 million tonnes of ROM coal per year. Two modifications to the Project Approval have since been granted, including:

- MOD 1 granted 16 October 2009 which extended the approved disturbance footprint by 8 hectares and added 12 hectares of land to the Drayton Wildlife Refuge as an offset; and
- MOD 2 granted 17 February 2012 which allowed for construction and operation of an explosives storage facility and emplacement of tailings in the East Pit Void.

Development Application 106-04-00 was approved on 2 November 2010 which authorises Drayton Coal Mine to use the Antiene Joint Rail User Facility in conjunction with joint use by the adjoining Mount Arthur coal mine. The Antiene Joint Rail User Facility incorporates the Antiene Rail Spur, Drayton Rail loading Facility and a Rail Loading facility for Mount Arthur Coal.

Anglo Coal holds Environment Protection Licence (EPL) 1323 for Drayton Coal Mine's operation under the *Protection of the Environment Operations Act 1997* (POEO Act).

The Drayton Coal Mine currently produces approximately 5 million tonnes per annum (Mtpa). However, at December 2014 estimates of ROM coal reserves were approximately 2 Mt of thermal quality coal and available resources were expected to expire in 2015. As such, the mine has operated 24 hours per day, 5 days per week since mid-2014. Previous operations were conducted 24 hours per day, 7 days per week.

1.3 Scope of Work

This IEA and subsequent report has been prepared pursuant to Condition 6, Schedule 5 of Project Approval 06_0202 (as modified), and Condition 7.1 of Development Application 106-04-00. **Table 1** lists the requirements of this condition and indicates where each has been addressed in this IEA report.

Table 1 Auditing Conditions and where each is addressed in this Report

Condition	Commitment	Where addressed in this report
Project Approval 06_0202 (as modified)		
6	Within 2 years of this approval, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:	This Audit Report

Condition	Commitment	Where addressed in this report
Project Approval 06_0202 (as modified)		
6(a)	be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been endorsed by the Director-General;	**Appendix A** and **Appendix C**
6(b)	assess the environmental performance of the project, and its effects on the surrounding environment;	**Section 4.0**
6(c)	assess whether the project is complying with the relevant standards, performance measures, and statutory requirements;	**Section 3.0**
6(d)	review the adequacy of any strategy/plan/program required under this approval; and, if necessary;	**Section 5.0**
6(e)	recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval. *Note: This audit team must be led by a suitably qualified auditor, and include experts in the field of noise, and mine rehabilitation and closure.*	**Section 6.0**
7	Within 6 weeks of completing this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General with a response to any recommendations contained in the audit report.	This Audit Report. Note that an extension was granted for the submission of this report to 26 February from the Department of Planning and Environment
Development Application 106-04-00		
7.1 (a)	Every three years from the date of this consent until completion of coal transportation in the DA area, or as otherwise directed by the Director-General, the Applicant shall conduct an environmental audit of the Drayton Rail loop operation and Antiene rail spur operation in accordance with ISO 14010 - Guidelines and General Principles for Environmental Auditing, and ISO 14011 - Procedures for Environmental Auditing (or the current versions), and in accordance with any specifications required by the Director-General. The audit shall be co-ordinated as far as possible with the audit for the Bayswater rail loading facility and rail loop as directed by the Director-General. Copies of the report shall be submitted by the Applicant to the Director-General, MSC, EPA, DMR, and CCC within two weeks of the report's completion for comment.	This Audit Report
(b)	The audit shall:	
(i)	assess compliance with the requirements of this consent, licences and approvals;	**Section 3.0**
(ii)	assess the development against the predictions made in the EIS;	**Section 4.2**
(iii)	review the effectiveness of the environmental management of the coal transportation operations, including any mitigation works;	**Section 4.0**
(iv)	be carried out at the Applicant's expense; and	This Audit Report
(v)	be conducted by a duly qualified independent person or team approved by the Director-General in consultation with MSC.	**Appendix A** and **Appendix C**

Condition	Commitment	Where addressed in this report
Project Approval 06_0202 (as modified)		
(c)	The Director-General may, after considering any submission made by the relevant government agencies, MSC and CCC on the report, notify the Applicant of any requirements with regard to any recommendations in the report. The Applicant shall comply with those reasonable requirements within such time as the Director-General may require.	Noted

1.4 Audit Approach

This IEA was undertaken generally in accordance with *AS/NZS ISO 19011:2003 – Guidelines for quality and/or environmental management systems auditing* by the following AECOM staff and contractors:

- Ian Richardson (Environment Director) – Lead Auditor;
- Jessica Miller (Environmental Planner) – Auditor;
- Michael Allan (Acoustics Engineer) – Specialist Acoustics Auditor;
- Dee Murdoch (Associate Director, Environment) – Specialist Rehabilitation and Closure Auditor; and
- David Rollings (Principal Environmental Engineer) – Specialist Air Quality Auditor.

This IEA consisted of a detailed desktop review of documentation, interviews with key Anglo Coal staff and a site visit of Drayton Coal Mine from 3 to 5 November 2015, as well as an additional site visit on 9 November 2015. Attendees at interviews included:

- James Benson - Environmental Coordinator;
- Brooke York - Environmental Officer;
- Cameron Eckersley - Environmental Graduate; and
- Staff from the following departments:
    - Technical Services;
    - CHPP;
    - Drilling and Blasting; and
    - Electrical Maintenance.

Agendas for the site meetings and itinerary for the site inspection components of the IEA (inclusive of attendees) are shown in **Appendix B**.

A noise site inspection was also undertaken as part of the IEA on 3 November 2015. Sections of the Project Approval 06_0202, Development Application 106-04-00 and EPL 1323 relating to noise and vibration performance were audited by the Specialist Acoustics Auditor, in addition to the requirements in the *Noise Management Plan* (AngloAmerican, May 2014) (refer **Section 3.5** and **Appendix H**). The recommendations made by the Specialist Acoustics Auditor can be found in **Section 5.2**.

An air quality site inspection was undertaken on 4 November 2015. Sections of the Project Approval 06_0202, Development Application 106-04-00 and EPL 1323 relating to air quality performance were audited by the Specialist Air Quality Auditor, in addition to the requirements in the *Air Quality Management and Monitoring Plan* (AngloAmerican, November 2013) (refer **Section 3.8** and **Appendix K**). The recommendations made by the Specialist Air Quality Auditor can be found in **Section 5.5**.

A rehabilitation/offset and mine closure site inspection was undertaken on 5 November, with a follow up inspection taking place on 9 November to account for areas of the site which were otherwise unable to be accessed due to adverse weather conditions. Sections of the Project Approval 06_0202, Development Application 106-04-00 and EPL 1323 relating to rehabilitation offset and mine closure performance were audited by the Specialist Rehabilitation and Closure Auditor, in addition to the requirements in the *Offset Strategy* (AngloAmerican, 23 September 2015), *Rehabilitation and Offset Management Plan* (AngloAmerican, October,

2013), *Final Void Management Plan* (Anglo Coal, November 2008) and *Mine Closure Plan* (Anglo Coal, January 2009) (refer **Sections 3.10** to **3.13**, as well as **Appendix M** to **Appendix P**). The recommendations made by the Specialist Rehabilitation and Closure Auditor can be found in **Sections 5.7** to **5.10**, and **Section 5.13**.

General site inspections were also undertaken on 3, 4 and 5 November 2015. These site inspections included discussions and interviews of key operational and administrative staff, and observations of processes, procedures and operations. The evening before the auditors attended site, a storm event occurred, and weather during the site visit was generally inclement. A short close out meeting was held with Anglo Coal staff on Thursday 5 November 2015, to provide an initial assessment of the audit review.

Performance categories in respect of compliance are defined in **Table 2**, as per the *Post-approval requirement for State significant developments Independent Audit Guideline* (NSW Government, October 2015).

Table 2 Performance Categories

Performance Category	Definition
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 verifiable 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 monitor or late monitoring session). This would not apply to performance-related aspects (e.g. exceedance of a noise limit) or where 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, where no assessment of compliance is required.

In addition, non-compliances were also categorised according to the risk levels for non-compliances as per the *Post-approval requirement for State significant developments Independent Audit Guideline* (NSW Government, October 2015) (refer **Table 3**).

Table 3 Risk Levels 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: - 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: - Potential for moderate environmental consequences, but is unlikely to occur; or - Potential for low environmental consequences, but is likely to occur.
Administrative non-compliance		Only to be applied where the non-compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions).

1.4.1 Correspondence with Regulators

Staff from Drayton Coal Mine liaised with DP&E prior to scoping the IEA via email on 24 August 2015, 7 September 2015 and 25 September 2015. The email dated 7 September 2015 requested specific matters required by DP&E to be addressed by the audit however no specific matters were raised. Correspondence from DP&E was provided on 25 September 2015 (refer **Appendix C**). This correspondence requested that Drayton liaise with the relevant agencies, including DP&E, to ascertain any issues that those agencies may wish the IEA to address. DP&E also requested that the IEA be conducted in accordance with the methodology outlined in **Table 4**.

Table 4 Audit Methodology Proposed by DP&E

DP&E Methodology Requirement	Where Addressed in this Report
The audit will need to address the following areas:	
Conditions of consent:	
- All conditions of consent are to be audited;	Refer **Sections 3.1** and **3.2**, and **Appendix D** and **Appendix E**
- The condition numbers must be included in the report; and	Refer **Sections 3.1** and **3.2**, and **Appendix D** and **Appendix E**
- Audit must be sequential (e.g.: all development consent requirements, then EPL, then Mining Lease).	Refer **Sections 3.1** to **3.4** and **Appendix D** to **Appendix G**
Management plans:	
- The commitments in management plans have been implemented.	**Sections 3.5** to **3.18** and **Appendix H** to **Appendix U**
Requirements of other relevant environmental legislation (where specified by the consent):	
- Environmental Protection Licence conditions; and	**Section 3.3** and **Appendix F**
- Environmental aspects of the Mining Lease.	**Section 3.4** and **Appendix G**
EA/EIS or SEE predictions and commitments:	
- This will include but not be limited to items such as mining phase, dump height, landform, noise	**Section 4.2**

DP&E Methodology Requirement	Where Addressed in this Report
The audit will need to address the following areas:	
attenuation, etc.	
Statement/s of commitments:	
- The commitments made have been implemented/complied with.	**Appendix D**
Monitoring results and trends:	
- Including against regulatory limits and EA/EIS/SEE predictions.	**Sections 1.4.2** and **5.0**
Community complaints:	
- Community complaints should be reviewed for any trends;	**Sections 1.4.3**, **4.2** and **5.3**, and **Appendix F**
- Identifying the source of an established trend; and	
- Is additional monitoring required for identified trends?	
Regulatory trends:	
- Including any letters, penalty notices, prosecutions, etc.	**Sections 3.1**, **3.3** and **4.1**
- What was the outcome of that action?	
- What was committed to following the regulatory action? Was it completed?	
- Are recommendations required to prevent recurrence?	**Section 6.0**, particularly **Table 29**, row titled 'General Recommendations'
Annual reviews:	
- Annual reviews are to be reviewed to provide the auditor with information as a basis for recommendations regarding ongoing environmental improvement; and	Throughout this IEA report
- As far as possible the audit should verify the validity of the annual review.	**Appendix E** contains a review of consent conditions, including those conditions setting out the requirements for AEMRs
Any other specific matters raised by relevant agencies or the Department:	
- Ensure that all specific matters raised by relevant agencies or the Department are addressed.	**Table 5**
Improvement opportunities:	
- Including opportunities to improve the environmental performance of the mine; and	**Section 6.0**
- Opportunities to improve or update any strategy, plan or program required under the consent. This includes any suggestions to improve management plans.	**Sections 5.0** and **6.0**

On 8 September 2015, Drayton sent an email query to the following regulators, advising them of the pending IEA, and offering them the opportunity to provide input into the scope of the audit:

- NSW Department of Primary Industries - NSW Office of Water (NOW);
- NSW Office of Environment and Heritage (OEH);

- NSW Department of Industry – Resources and Energy (DRE);
- Muswellbrook Shire Council (MSC); and
- NSW Environment Protection Authority (EPA).

No specific matters were raised by these regulators, apart from DRE, which requested the following matters be addressed, as outlined in **Table 5**.

Table 5 Specific Matters Raised by DRE

Specific Matter	IEA Observation
Desktop	
Is there a current Mining Operations Plan (MOP) in place and has it been approved by DRE?	The *Mining Operations Plan (1 July 2015 to 30 June 2020)* (Anglo Coal, 2015) received approval on 30 October 2015.
Has the MOP been prepared in consultation with the relevant agencies as outlined in the Project Approval?	While the Project Approval does not set out agencies that are required to be consulted with, the *Mining Operations Plan (1 July 2015 to 30 June 2020)* (Anglo Coal, 2015) includes consultation with the following stakeholders: - DP&E; - DRE; - Muswellbrook Shire Council; - OEH; and - Dams Safety Committee.
Is the rehabilitation strategy, as outlined in the MOP, consistent with the Project Approval in terms of progressive rehabilitation schedule and proposed final land use(s)?	Proposed rehabilitation in the Project Approval is conceptual, and the rehabilitation strategy outlined in the new *Mining Operations Plan (1 July 2015 to 30 June 2020)* (Anglo Coal, 2015) has been updated to reflect this.
Has the rehabilitation objectives and completion criteria, as outlined in the MOP, been developed in accordance with the proposed final land(s) as outlined in the Project Approval?	Proposed final land use in the Project Approval is conceptual, and the rehabilitation objectives and completion criteria outlined in the new *Mining Operations Plan (1 July 2015 to 30 June 2020)* (Anglo Coal, 2015) have been updated to reflect this.
Has a rehabilitation monitoring program been developed and implemented to assess performance against the nominated objectives and completion criteria? (to be verified by reviewing monitoring reports and rehabilitation inspection records).	The new *Mining Operations Plan (1 July 2015 to 30 June 2020)* (Anglo Coal, 2015) contains relevant completion criteria, but these were only recently finalised, and so were not being actively assessed throughout the audit period.
Has a rehabilitation care and maintenance program been developed and implemented based on the outcomes of monitoring program? – verified by reviewing Annual Rehabilitation Programs or similar documentation.	These criteria are outlined in Tables 24 and 25 of the new *Mining Operations Plan (1 July 2015 to 30 June 2020)* (Anglo Coal, 2015). There has been no requirement to implement them to date.
Site Inspection	
Are mining operations 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.	This was confirmed by a review of site plans during the site visit.
Is rehabilitation progress consistent with the approved	Details pertaining to progress of rehabilitation in

Specific Matter	IEA Observation
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 Project Approval.	context of the Rehabilitation Targets (Table 28 of MOP) and Plans (MOP 3A – 3G) are provided in the AEMRs 2012, 2013 and 2014.
Based on a visual inspection, are there 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?	Some areas have been subject to slower than optimal rehabilitation progress, including lower than optimal survival rates of planted species. Supplementary planting was underway at the time of the audit (of 250,000 trees) to address these issues where target densities have not yet been achieved.
In addition, the audit should note observations where rehabilitation procedures, practices and outcomes represent best industry practice.	The geofluv area was sighted by the rehabilitation specialist auditor, and is considered best practice landform design within the Hunter Valley region.

1.4.2 Monitoring Results and Trends

Monitoring results for noise and vibration, air quality, and rehabilitation were assessed by the specialist auditors as part of their review of Drayton Mine's existing management plans, and relevant recommendations were made as appropriate (refer **Sections 5.2**, **5.5**, **5.7**, **5.8**, **5.9**, **5.10** and **5.13**). Select monitoring results for water quality were also reviewed by the lead auditor and assistant auditor (refer **Section 5.6**). Consideration of overall trends in monitoring data as presented in the AEMRs for the audit period was also considered by the audit team in relation to original predictions (refer **Section 4.2**), and in relation to results obtained for the remaining site management plans (refer **Section 5.0**).

Given that some of the site's management plans were found to be out of date, some inconsistencies were observed between certain monitoring plans when compared with what is presented in the *Environmental Monitoring Program* (AngloAmerican, July 2013). Relevant recommendations made against the *Environmental Monitoring Program* (AngloAmerican, July 2013) are outlined in **Section 5.15**.

1.4.3 Community Complaints

The audit team viewed copies of recent complaints registers for Drayton Mine, and discussed common complaints received by staff at Drayton Mine. Common matters raised in community complaints included noise, vibration and odour. The site appears to be managing these isolated complaints and responding to them appropriately (refer to **Sections 4.2** and **5.3** for more details).

A review of the site's complaints handling process against the requirements of Condition M5 in EPL1323 indicated that the site is keeping appropriate records of community complaints and any follow up actions as required (refer **Appendix F**).

1.4.4 Limitations of the Audit

The AECOM audit team received complete cooperation from all staff during the IEA. However, the following issues arose during the IEA, which limited to some extent, its findings:

- In some instances, there was confusion over the versions and status of management plans which applied to the site. It is general practice for the audit team to be provided with up to date copies of management plans before attending site, so that the scope of audit questions can be defined. For instance, an updated version of the Noise Management Plan was provided to the audit team after the Specialist Acoustics Auditor had already attended site. There also appeared to be some confusion over whether an Environmental Management Strategy applied to the site at all, and this Strategy was provided to the auditors while they were onsite. The updated and therefore current versions of the Spontaneous Combustion Management Plan and the Mining Operations Plan were also not provided to the audit team until they were onsite;
- The current Drayton site has development approval to operate until 31 December 2017. However at the time of the audit Anglo Coal had a development application sitting before the Planning and Assessment Commission for its Drayton South Coal Project. The PAC review of the Drayton South Project subsequent to this audit has resulted in a recommendation that the project not proceed. Anglo Coal staff advised the audit

team that updated draft management plans were being prepared to manage both sites, for use if the Planning and Assessment Commission approved the Drayton South Coal Project. However these draft plans were not reviewed by the audit team, and so in the instance where a current management plan is out of date, it is not possible for the audit team to comment on whether the updated draft plan will in fact address any defects within the current plan;

- Inclement weather occurred during the site visit, meaning that some areas were not completely accessible to the audit team. In the case of the rehabilitation/offset and mine closure site inspection which was scheduled for 5 November, a follow up inspection was also undertaken on 9 November to account for rehabilitation areas which were not accessible on 5 November;
- Opinions presented in this report apply to the site's conditions and features as they existed at the time of AECOM's site visit on 3 to 5 November 2015, as well as an additional site visit on 9 November 2015 and those reasonably foreseeable. They necessarily cannot apply to conditions and features which AECOM is unaware of and has not had the opportunity to evaluate;
- The conclusions presented in this report are professional opinions based solely on AECOM's visual observations of the site and the immediate vicinity, and upon AECOM's interpretations of the documentation reviewed, interviews and conversations with personnel knowledgeable about the site and other available information, as referenced in this report. These conclusions are intended exclusively for the purpose stated herein, at the site listed, and for the project indicated; and
- This report does not, and does not purport to, give legal advice on the actual or potential environmental liabilities of any individual or organisation, or to draw conclusions as to whether any particular circumstances constitute a breach of relevant legislation.

1.5 Report Structure

This report is structured as follows:

Section 1.0 provides an introduction, background, description and layout of Drayton Coal Mine, describes the requirements for the IEA and provides a guide to the structure of the report.

Section 2.0 lists the planning approvals in place at Drayton Coal Mine, provides a description of each and confirms those which have been the subject of this IEA.

Section 3.0 provides a discussion of non-compliances against the Project Approval and Development Application, as well as other licences and management plans.

Section 4.0 provides a review of effectiveness of environmental performance under the mentioned approvals at Drayton Coal Mine.

Section 5.0 provides a review of the adequacy of the environmental management plans reviewed.

Section 6.0 provides recommendations for measures or actions to improve the environmental performance of Anglo Coal.

This page has been left blank intentionally.

2.0 Documents Reviewed

Table 6 lists the documents reviewed for this IEA are along with where each is addressed in the report:

Table 6 Drayton Documents used to assess compliance and where each is addressed in this Report

Document	Where addressed in this report
Project Approval 06_0202 (as modified)	**Section 3.1**
Development Application 106-04-00	**Section 3.2**
EPL 1323	**Section 3.3**
Coal Leases 229 and 395 and Mining Lease 1531	**Section 3.4**
Noise Management Plan (AngloAmerican, May 2014) – audited by the Specialist Acoustics Auditor	**Section 3.5**
Blasting Management and Monitoring Plan (AngloAmerican, March 2013)	**Section 3.6**
Spontaneous Combustion Management Plan (AngloAmerican, January 2012)	**Section 3.7**
Air Quality Management and Monitoring Plan (AngloAmerican, November 2013) – audited by the Specialist Air Quality Auditor	**Section 3.8**
Water Management Plan (Anglo Coal, November 2009)	**Section 3.9**
Offset Strategy (AngloAmerican, 23 September 2015) - audited by the Specialist Rehabilitation and Closure Auditor	**Section 3.10**
Rehabilitation and Offset Management Plan (AngloAmerican, October, 2013) - audited by the Specialist Rehabilitation and Closure Auditor	**Section 3.11**
Final Void Management Plan (Anglo Coal, November 2008) - audited by the Specialist Rehabilitation and Closure Auditor	**Section 3.12**
Mine Closure Plan (Anglo Coal, January 2009) - audited by the Specialist Rehabilitation and Closure Auditor	**Section 3.13**
Aboriginal Cultural Heritage Management Plan (Anglo Coal, October 2008)	**Section 3.14**
Greenhouse and Energy Efficiency Plan (AngloCoal, May 2008)	**Section 3.15**
Flora and Fauna Management Plan (AngloAmerican, July 2013)	**Section 3.16**
Environmental Management Strategy (Anglo Coal, May 2010)	**Section 3.17**
Environmental Monitoring Program (AngloAmerican, July 2013)	**Section 3.18**
Independent Environmental Compliance Audit – Drayton Coal – Project Approval 06_0202 and Development Application 106-04-00 (Parsons Brinckerhoff, October 2012)	**Section 3.19**
Mine Extension Environmental Assessment (Hansen Bailey, November	**Section 4.2**

Document	Where addressed in this report
2007)	
Antiene Joint User Rail Facility Environmental Impact Statement (Umwelt, March, 2000)	**Section 4.2**
Mining Operations Plan (1 July 2015 to 30 June 2020) (Anglo Coal, 2015)	**Section 5.1**

Table 7 lists the approvals, licences and permits currently held for Drayton Coal Mine and provides an indication of the status of each.

Table 7 Summary of Anglo Coal's Current Approvals, Licences and Permits

Approval Type	Detail	Authority	Expiry
Project Approval	Project Approval 06_0202 (as modified)	DP&E	31 December 2017
	Development Application 106-04-00	DP&E	2 November 2025
EPL	1323	EPA	Anniversary date 1 May. Review date 19 August 2019
Dangerous Goods Notification	NDG019387	WorkCover	Perpetuity
Radiation Management Licence	RML31157	EPA	18 June 2016
Mining Tenements	CL 229	Department of Trade Investment and Regional Infrastructure – Division of resources and Energy Industries (DRE)	May 2024
	ML 1531		February 2024
	CL 395		January 2029
Mining Operations Plan	*Mining Operations Plan Drayton Mine – 2012-2017*	DRE	2017
Water Licences	Groundwater Bores/Wells: 20BL111869 20BL122620 20BL171956 20BL171957 20BL171958 20BL171955 20BL171954 20BL171953	NSW Office of Water (NoW)	Various

3.0 Environmental Compliance

Condition 5, Schedule 5 of Project Approval 06_0202 (as modified) and Condition 7.1 of Development Application 106-04-00 require the proponent to "commission and pay the full cost of an Independent Environmental Audit of the project." Subclause 5(c) of this Condition specifies that the audit must:

> *assess whether the project is complying with the relevant standards, performance measures, and statutory requirements;*

In the assessment of compliance (refer **Section 1.4**), the status of each condition is described as:

- Compliant;
- Not verified;
- Non-compliant;
- Administrative non-compliance; or
- Not Triggered (used where conditions have not yet been activated due to activities not being commenced or requests not being made for example).

In addition, a few isolated observations were made by the auditors (refer **Section 4.1**). Recommendations are made throughout the audit report, and are summarised in **Table 29**. No conditions were found to have not been able to be verified.

The commitments in the Project Approval 06_0202 (as modified), Development Application 106-04-00, EPL 1323, Coal Leases 229 and 395 and Mining Lease 1531, were audited, with a total of 27 non-compliances. A summary of these non-compliances is outlined in **Table 8**.

Table 8 Summary of Non-compliances Found and Recommendations Made against Project Approval 06_0202 (as modified), EPL 1323, Coal Leases 229 and 395 and Mining Lease 1531

Document	Reference	Non-compliant	Recommendations Made
Project Approval 06_0202 (as modified)	**Section 3.1**	12 - **Table 10**	0
Development Application 106-04-00	**Section 3.1**	10 - **Table 11**	0
EPL 1323	**Section 3.3**	4 - **Table 12**	0
CL 229, CL 395 and ML 1531	**Section 3.4**	1 - **Table 13**	0

After auditing the management plans, a total of 60 non-compliances were found. **Table 9** outlines the conditions that were found non-compliant for the purpose of this audit against the management plans assessed. Where compliance could not be found against Drayton's management plans this has been acknowledged as non-compliant for the purposes of this audit. A detailed outline of the compliance of the management plans is outlined in **Appendix H** to **Appendix U**.

Table 9 Summary of Non-compliances Found and Recommendations made against Environmental Management Plans

Document	Reference	Non-compliant	Recommendations Made
Noise Management Plan (Anglo American, May 2014)	**Section 3.5**	5 – **Table 14**	2 – **Table 29**
Blasting Management and Monitoring Plan (AngloAmerican, March 2013)	**Section 3.6**	3 – **Table 15**	2 – **Table 29**
Spontaneous Combustion Management Plan (AngloAmerican, January 2012)	**Section 3.7**	1 – **Table 16**	1 – **Table 29**
Air Quality Management and Monitoring Plan (AngloAmerican, November 2013)	**Section 3.8**	3 – **Table 17**	2 – **Table 29**

Document	Reference	Non-compliant	Recommendations Made
Water Management Plan (Anglo Coal, November 2009)	**Section 3.9**	17 – **Table 18**	7 – **Table 29**
Offset Strategy (AngloAmerican, 23 September 2015)	**Section 3.10**	0	0
Rehabilitation and Offset Management Plan (AngloAmerican, October, 2013)	**Section 3.11**	3 – **Table 19**	2 – **Table 29**
Final Void Management Plan (Anglo Coal, November 2008)	**Section 3.12**	1 – **Table 20**	0
Mine Closure Plan (Anglo Coal, January 2009)	**Section 3.13**	1 – **Table 21**	0
Aboriginal Cultural Heritage Management Plan (Anglo Coal, October 2008)	**Section 3.14**	6 – **Table 22**	3 – **Table 29**
Greenhouse and Energy Efficiency Plan (AngloCoal, May 2008)	**Section 3.15**	7 – **Table 23**	0
Flora and Fauna Management Plan (AngloAmerican, July 2013)	**Section 3.16**	1 – **Table 24**	1 – **Table 29**
Environmental Management Strategy (Anglo Coal, May 2010)	**Section 3.17**	7 – **Table 25**	4 – **Table 29**
Environmental Monitoring Program (AngloAmerican, July 2013)	**Section 3.18**	5 – **Table 26**	2 – **Table 29**

A review was also conducted of the recommendations made in the previous *Independent Environmental Compliance Audit – Drayton Coal – Project Approval 06_0202 and Development Application 106-04-00* (Parsons Brinckerhoff, October 2012) (refer **Section 3.19**). Fifteen (15) of the conditions that were originally found non-compliant were now found to be compliant, while twelve (12) recommendations from the 2012 audit that related to matters of compliance were not considered or actioned. A detailed assessment of compliance for each recommendation is outlined in **Appendix V**.

3.1 Project Approval 06_0202 (as modified)

Table 10 shows the conditions that were found to be non-compliant with the Project Approval 06_0202 (as modified). A detailed assessment of compliance for each condition is outlined in **Appendix D**.

Table 10 Non-compliance against Project Approval 06_0202 (as modified)

Schedule	Condition	Commitment	Audit Finding
2	1	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 project.	On 10 January 2014 a significant diesel spill was identified on the site, constituting an environmental harm incident as per the definition afforded in the Protection of the Environment Operations Act 1997. This spill was contained onsite, and was subsequently remediated to the satisfaction of the EPA. Preventative mechanisms were also installed at the site of the diesel spill to prevent future

Schedule	Condition	Commitment	Audit Finding
			reoccurrence of the same. **Non-Compliant – High**
2	8(d)	(d) include a noise monitoring program that: - uses a combination of real-time and supplementary attended monitoring measures to evaluate the performance of the project; - adequately supports the proactive and reactive noise management system on site; - includes a protocol for determining exceedances of the relevant conditions in this approval; - evaluates and reports on the effectiveness of the noise management system on site; - provides for the annual validation of the noise model for the project;	Sections 9 and 10 of the Noise Management Plan (AngloAmerican, May 2014) outline the noise monitoring, reactive management and exceedances protocol. Section 3.10 of the 2012 AEMR, Section 3.10 of the 2013 AEMR, and Section 3.11 of the 2014 AEMR outlines the effectiveness of these measures. However, no annual validation of the noise model is outlined in the AEMRs. **Administrative non-compliance**
2	26	During the life of the project, the Proponent shall ensure that there is a suitable meteorological station in the vicinity of the site that complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline.	During the current audit, the meteorological stations onsite were inspected and observed to be operating correctly. However the site was not able to provide relevant calibration records for one of the meteorological stations. **Administrative non-compliance**
2	30(a)	The Erosion and Sediment Control Plan must: (a) be consistent with the requirements of the Managing Urban Stormwater: Soils and Construction Manual (Landcom 2004, or its latest version);	The previous IEA confirmed that the Water Management Plan (Anglo Coal, November 2009) is not consistent with the requirements of Managing Urban Stormwater: Soils and Construction Manual (Landcom 2004, or its latest version). Given that the Water Management Plan has not been updated in the interim, it can be concluded that the Plan is still non-compliant with these requirements. **Administrative non-compliance**
2	30(c)	(c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;	The previous IEA confirmed that the Water Management Plan (Anglo Coal, November 2009) did not comply with this requirement. Given that the Water Management Plan has not been updated in the interim, it can be concluded that the Plan is still non-compliant with this requirement. **Administrative non-compliance**

Schedule	Condition	Commitment	Audit Finding
2	30(d)	(d) describe the location, function, and capacity of erosion and sediment control structures; and	The previous IEA confirmed that the Water Management Plan (Anglo Coal, November 2009) did not comply with this requirement. Given that the Water Management Plan has not been updated in the interim, it can be concluded that the Plan is still non-compliant with this requirement. **Administrative non-compliance**
2	30(e)	(e) describe what measures would be implemented to maintain the structures over time.	The previous IEA confirmed that the Water Management Plan (Anglo Coal, November 2009) did not comply with this requirement. Given that the Water Management Plan has not been updated in the interim, it can be concluded that the Plan is still non-compliant with this requirement. **Administrative non-compliance**
2	36(b)	(b) describe the measures that would : - offset the specified vegetation clearing of the project; - ensure that adequate resources are dedicated towards the implementation of this offset; - demonstrate that the proposed offset is generally consistent with the principles in Appendix 9, and would result in a net improvement in the biodiversity value of the local area in the medium to long term; and - provide appropriate long term security for this offset.	The previous IEA made recommendations that resourcing and compliance with Appendix 9 be included in the Strategy. The Offset Strategy (AngloAmerican, 23 September 2015) now contains a statement that it complies with the Appendix 9, however there is no explanation of how the Strategy complies with Appendix 9. There is no additional explanation of resourcing. **Administrative non-compliance**
2	44(b)	The Proponent shall: (a) keep records of the: - amount of coal transported from the site each year; - number of coal haulage train movements generated by the project (on a daily basis); - date and time of each train movement generated by the project; and - (b) include these records in the AEMR.	This rail activity data is provided in Appendix H of the AEMRs 2012, 2013 and 2014. However it is noted that the time of each train movement is not provided in the AEMRs. **Administrative non-compliance**

Schedule	Condition	Commitment	Audit Finding
5	3	Within 24 hours of detecting an exceedance of the limits/performance criteria in this approval or the occurrence of an incident that causes (or may cause) harm to the environment, the Proponent shall notify the Department and other relevant agencies of the exceedance/incident.	On 10 January 2014 a significant diesel spill was identified on the site, constituting an environmental harm incident as per the definition afforded in the Protection of the Environment Operations Act 1997. However, the authorities were not notified of this on the same day, and the evidence indicates they were not advised until 13 January 2014. **Non-compliant - Medium**
5	10(b)	(b) put a copy of the relevant document/s on its website.	The auditors were not able to access all of this information on the Drayton website. Specifically, a copy of the 2012 AEMR and the Environmental Management Strategy (Anglo Coal, 2010) were not available on the Drayton website. A 2008 version of the Noise Management Plan was the only version available online, as well as a 2008 version of the Spontaneous Combustion Management Plan. **Administrative non-compliance**
Appendix 3	5	The following Management Plans will be prepared and/or revised and relied upon for the operation of Drayton (in consultation with relevant regulators to the approval of DoP): - Spontaneous Combustion Management Plan; - Water Management Plan; - Flora & Fauna Management Plan; - Rehabilitation & Landscape Management Plan (including Void Management); and - Aboriginal Archaeology & Cultural Heritage Management Plan.	The following management plans are not considered up to date according to this requirement: Spontaneous Combustion Management Plan (AngloAmerican, January 2012), Water Management Plan (Anglo Coal, November 2009), and the Aboriginal Cultural Heritage Management Plan (Anglo Coal, October 2008). **Administrative non-compliance**

3.2 Development Application 106-04-00

Table 11 shows the conditions that were found to be non-compliant with the Development Application 106-04-00. A detailed assessment of compliance for each condition is outlined in **Appendix E**. It is noted that this consent is considered to be outdated, and the legal pathway for its relinquishment has been the subject of discussion over the last decade with the Department of Planning and Environment.

Table 11 Non-compliances against Development Application 106-04-00

Reference	Commitment	Audit Finding
2.1(a)	The Environmental Coordinator(s) employed by Drayton mine: i. …….. iv. shall have the authority and independence to require reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts and failing the effectiveness of such steps, to stop work immediately if an adverse impact on the environment is likely to occur.	The previous audit recommended that Drayton Coal should revise the Environmental Coordinator's position description to include the authority to cease work activities that may cause adverse environmental impact, or require any other reasonable steps to be taken to avoid or minimise unintended or adverse environmental impact. This position description has not been updated since prior to the previous IEA. **Administrative non-compliance**
2.2(b) (iii)	The Environmental Management Strategy shall include, but not be limited to: (iii) overall environmental management objectives and performance outcomes, during, operation and decommissioning of the rail loop and Antiene rail spur, for each of the key environmental elements for which management plans are required under this consent;	The previous audit recommended that the EMS be revised to include a clearer reference to the consent. This would include providing performance outcomes during operation and decommissioning of the loop and spur, improving Table 4 to include reference to the consent, and including the environmental management plans applicable to the loop and spur. The EMS has not been updated to take into account these recommendations. **Administrative non-compliance**
2.2(b) (iv)	The Environmental Management Strategy shall include, but not be limited to: (iv) overall ecological and community objectives for the project, and a strategy for the restoration and management of the areas affected by operations, including elements such as wetlands and other habitat areas, creek lines and drainage channels, within the context of those objectives;	The previous audit recommended that the EMS be revised to include ecological and community objectives for the rail loop and spur, and provide a strategy for the restoration and management of the areas affected by the rail loop and spur including elements such as wetlands and other habitat areas, creek lines and drainage channels, within the context of those objectives. The EMS has not been updated to take account of these recommendations. However, other management plans at the Site deal with these issues, including the ROMP, and the MOP. **Administrative non-compliance**
2.2(b) (vi)	The Environmental Management Strategy shall include, but not be limited to: (vi) overall objectives and strategies to protect economic productivity within the area affected by the operations;	The previous audit recommended that the EMS be revised to include overall objectives and strategies to protect economic productivity within the area affected by the operations. The EMS has not been updated to take account of these recommendations. However these issues are dealt with in the MOP. **Administrative non-compliance**

Reference	Commitment	Audit Finding
2.2(b) (ix)	The Environmental Management Strategy shall include, but not be limited to: (ix) documentation of the results of consultations undertaken in the development of the Environmental Management Strategy.	The previous audit recommended that the EMS be revised to include a provision for all facets of consultation relating to the development of the EMS. The EMS has not been updated to take account of this recommendation. However ongoing consultation occurs with the CCC around EMS development and broader review and update of environmental management at the Site. **Administrative non-compliance**
2.2(e)	The management plans are to be revised, and updated as necessary, at least every 5 years or as otherwise directed by the Director-General in consultation with the relevant government agencies. They will reflect changing environmental requirements or changes in technology/operational practices. Changes shall be made and approved in the same manner as the initial environmental management plan. The plans shall also be made publicly available at MSC within two weeks of approval of the relevant government authority.	Two out of the four required management plans are compliant. However the latest version of the Water Management Plan is dated November 2009. The previous audit also confirmed that the Joint Acquisition Management Plan has not been updated since 2001, and there is no indication that it has been updated since that time (although it is noted that the other consent holder has relinquished their relevant consent). Therefore, these requirements have not been met for the Water Management Plan and the JAMP. **Administrative non-compliance**
5.3.3(a)	The levels of noise emitted from the premises must be monitored for 72 hrs every 3 months unless otherwise agreed by the Director-General at locations agreed to in consultation with the EPA. The monitoring must determine the Lea, hour, Lea, 15min, LA10, 15min, LA90, 15min, and LA1, 1min and include an assessment of the impact of operational noise on adjoining residents.	Attended noise monitoring is undertaken every month, with fortnightly supplementary monitoring and real time monitoring via BarnOwl undertaken 24 hours per day. However, not all parameters are recorded on monitoring reports. **Administrative non-compliance**
6.1(b)	Coal transported along the Antiene Rail Spur is limited to twenty (20) million tonnes per annum.	The 2012, 2013 and 2014 AEMRs report that coal transported along the Antiene Rail Spur exceeded these limits (maximum of approximately 1.8 Mtpa). It is noted that Mt Arthur Coal's new consent allows for a greater amount of coal transport (27 Mtpa). **Non-compliant - Low**
7(b)	All sampling strategies and protocols undertaken as part of any monitoring program shall include a quality assurance/quality control plan and shall require approval from the relevant regulatory agencies to ensure the effectiveness and quality of the monitoring program. Only laboratories with a nationally recognised relevant accreditation shall be used for laboratory analysis.	The previous audit recommended that the Environmental Monitoring Program be revised to include a quality assurance/quality control plan which is suitable for all monitoring undertaken on site. It is noted that the site uses NATA accredited laboratories for all sampling analyses, and an SHE Calibration Procedure does exist for monitoring equipment. However there is no indication that a quality assurance system is

Reference	Commitment	Audit Finding
		implemented overall for monitoring/sampling works. **Administrative non-compliance**
7.2	The applicant shall utilise the existing meteorological station at Drayton mine or establish an alternative meteorological station at a relevant location, in accordance with the requirements of AS 2922 1987 "Ambient Air Guide for Siting of Sampling Units" or updated version. The meteorological station must be capable of recording wind direction and speed, temperature and sigma theta and be operated in accordance with the requirements of AS 2923-1987 "Ambient Air Guide Horizontal Wind for Air Quality Application", or subsequent relevant standards.	During the current audit, the meteorological stations onsite were inspected and observed to be operating correctly. However the site was not able to provide relevant calibration records for one of the meteorological stations. **Administrative non-compliance**

3.3 Environment Protection Licence 1323

Table 12 shows the conditions that were found to be non-compliant with Drayton's EPL 1323. A detailed assessment of compliance for each condition is outlined in **Appendix F**.

Table 12 Non-compliances against EPL 1323

Reference	Commitment	Audit Finding
L1.1	Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.	On 10 January 2014 a significant diesel spill was identified on the site, constituting an environmental harm incident as per the definition afforded in the Protection of the Environment Operations Act 1997. The EPA considered this event to constitute a contravention of section 120 of the POEO Act. This spill was contained onsite, and was subsequently remediated to the satisfaction of the EPA. Preventative mechanisms were also installed at the site of the diesel spill to prevent future reoccurrence of the same. **Non-compliant – High**
O2.1	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.	The auditors saw evidence of plant and equipment being subject to work orders for both scheduled maintenance and ad hoc repairs under the Elipse SQL system. Overall, plant and equipment at the site appeared to be maintained and operated in good working order during the site visit. However, subsequent to the diesel spill that occurred on 10 January 2014, the EPA issued a penalty notice against this EPL condition due to the fact that equipment failure allowed the spill to occur. This spill was contained onsite, and was subsequently remediated to the satisfaction of the EPA. Preventative mechanisms were

Reference	Commitment	Audit Finding
		also installed at the site of the diesel spill to prevent future reoccurrence of the same. **Non-compliant - High**
M4.1	Note: (1) All methods are specified in the Approved Methods for Sampling and Analysis of Air pollutants in New South Wales and all monitoring must be conducted strictly in accordance with the requirements outlined in this document	During the current audit, the meteorological stations onsite were inspected and observed to be operating correctly. However the site was not able to provide relevant calibration records for one of the meteorological stations. **Administrative non-compliance**
R2	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.	On 10 January 2014 a significant diesel spill was identified on the site, constituting an environmental harm incident as per the definition afforded in the Protection of the Environment Operations Act 1997. However, the authorities were not notified of this on the same day, and indeed the evidence suggests they were not advised until 13 January 2014. This spill was contained onsite, and was subsequently remediated to the satisfaction of the EPA. Preventative mechanisms were also installed at the site of the diesel spill to prevent future reoccurrence of the same. **Non-compliant - Medium**

3.4 Coal Leases 229 and 395 and Mining Lease 1531

Table 13 shows the conditions that were found to be non-compliant with Anglo Coal's CL 229, CL 395 and ML 1531. A detailed assessment of compliance for each condition is outlined in **Appendix G**. One recommendation was made by the auditors in relation to compliance with CL 229, CL 395 and ML 1531.

Table 13 Non-compliances against CL 229, CL 395 and ML 1531

Reference	Commitment	Audit Finding
25	The lease holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse or catchment area or any undue interference to fish or their environment and shall observe any instruction given or which may be given by the Minister with a view to preventing or minimising the contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse or catchment area or any undue interference to fish or their environment.	On 10 January 2014 a significant diesel spill was identified on the site, constituting an environmental harm incident as per the definition afforded in the Protection of the Environment Operations Act 1997. The EPA considered this event to constitute a contravention of section 120 of the POEO Act (pollution of waterways). This spill was contained onsite, and was subsequently remediated to the satisfaction of the EPA. Preventative mechanisms were also installed at the site of the diesel spill to prevent future reoccurrence of the same. **Non-compliant - High**

3.5 *Noise Management Plan* (AngloAmerican, 2014)

The requirements in the *Noise Management Plan* (AngloAmerican, May 2014) were audited by the Specialist Acoustics Auditor. **Table 14** shows the conditions that were found to be non-compliant with the *Noise Management Plan* (AngloAmerican, May 2014). A detailed assessment of compliance for each of these conditions is outlined in **Appendix H**. Two recommendations were made in relation to the *Noise Management Plan* (AngloAmerican, May 2014) (refer **Table 29**).

Table 14 Non-compliances against *Noise Management Plan* (AngloAmerican, 2014)

Reference	Commitment	Audit Finding
5.2	In accordance with Project Approval (06_ 0202), at the end of year two of the development, and every three years thereafter, Drayton will commission an independent environmental audit to the satisfaction of Director-General of DoP. The audit will include an assessment of the adequacy of all management plans. Where necessary, following the audit this management plan may be updated and action taken to improve noise management practices at Drayton.	Not all recommendations from the previous audit appear to have been considered in the latest version of the Noise Management Plan. **Administrative non-compliance**
6	Environmental monitoring at Drayton is conducted in accordance with the following approvals/Acts, regulatory conditions or standards: - Environmental Planning and Assessment Act 1979 (EP&A Act) associated project approval conditions (Ref 06_0202, and DA 106-04-00) administered by the DoPI. - Anglo Coal Drayton Mine Environmental Assessment (EA) 2007. - NSW Industrial Noise Policy (INP). - Anglo American Metallurgical Coal Safety, Health and Environment Management System (SHEMS). - Incident Reporting, Notification and Initial Investigation Procedure (Drayton 2012).	The monthly noise monitoring does not appear to be undertaken in accordance with the approved methodology. Noise levels are arbitrarily separated into contributions from different sources, do not appear to be specific to the operations undertaken onsite at the time of measurements, and is not calibrated against measurements taken. Specifically, noise monitoring undertaken by external consultants does not appear to adequately isolate background noise levels from the source noises which are required to be monitored. **Non-compliant - Low**
9	The Drayton noise model is validated by comparing actual attended noise monitoring data with the predictions made in the noise model under comparable meteorological conditions. In the event that attended monitoring results are higher than those modelled in the 2007 EA, the acoustic consultant will review the results and model inputs to determine the cause of the variation. This includes meteorological data, topographic data, equipment type and locations, and other noise sources in the area.	No evidence was provided to indicate that noise model validation is undertaken. **Administrative non-compliance**
9	A review of the noise model validation will be reported on an annual basis in the Drayton AEMR.	No annual validation of the noise model is outlined in the AEMRs. **Administrative non-compliance**
10.1	Supplementary Monitoring will be undertaken at the nearest location to the residence and shall be subject to the consent of the resident. The data shall be collected over a 15 minute period and results will be recorded for LAeq, LAmax, LA1, LA10, LA50 and LA90. Monitoring may be paused	Results for all the required parameters are not recorded. Noise levels are reported correctly as A-weighted. However percentage of noise is being used to estimate the noise contribution from site. The reported figures are those that have been

Reference	Commitment	Audit Finding
	to exclude extraneous noise from the data set. Relevant meteorological conditions will be recorded at the time of monitoring for each monitoring event to adequately demonstrate the validity of the results.	modified from the original readings. The noise levels do not accurately represent either those that are actually generated by the site, nor the overall noise generated. The problem lies with documentation on how the measurements and assessment of contribution should be made. **Non-compliant - Low**

3.6 *Blasting Management and Monitoring Plan* (AngloAmerican, March 2013)

Table 15 shows the conditions that were found to be non-compliant with the *Blasting Management and Monitoring Plan* (Anglo Coal, April 2008). A detailed assessment of compliance for each condition is outlined in **Appendix I**. Two recommendations were made against the *Blasting Management and Monitoring Plan* (AngloAmerican, March 2013) (refer **Table 29**).

Table 15 Non-compliances against *Blasting Management and Monitoring Plan* (AngloAmerican, March 2013)

Reference	Commitment	Audit Finding
4.1	**Environment Coordinator:** The Environment Coordinator is responsible to: - Assist in the decision process to fire blasts in adverse weather conditions. - Monitor all blasts for both airblast and vibration levels. - Ensure the monitoring system is operational and, if issues arise, deal with them in a prompt and efficient manner. - Calibrate the monitoring system as per specification requirements. - Document all necessary reporting in a prompt and efficient manner and within the timeframes required. - Where relevant, notify private residents of blasting times and any subsequent modifications to blasting times. - Maintain the register of private residents to be notified of blasting times. - Coordinate and ensure the blasting hotline is advertised in local newspapers at least four times per year. - Notify all landowners within 2km of the site that they are entitled to a structural property inspection. If a written request from any of these residents is received, the environmental coordinator shall commission a suitably qualified, experienced and independent person, whose appointment must be approved of by the Director-General. - If a landholder within 2km of the site requests a structural property inspection, the Environment Coordinator shall commission a	Audit interview with Drill and Blast Engineer suggests that the Environment Coordinator is not involved in this decision making. **Administrative non-compliance**

Reference	Commitment	Audit Finding
	suitably qualified, experienced and independent person, whose appointment must be approved of by the Director-General. - Implement a blast monitoring programme.	
4.6.5	Additional data must also be recorded following each blast. This is responsibility of the Mining Coordinator - Drill and Blast to complete the blasting checklist and forward to the Environment \Coordinator immediately after the blast.	Explosives quantity does not appear to be recorded as per Engineering Fume Checklist, Pre-blast Checklist and Post-blast Checklist, as well as summary of blast monitoring. Based on the summary of blast monitoring provided to the auditors, there were at least six instances during the audit period (2014 and 2015) where blasts did not have a corresponding pre-shot checklist completed. **Administrative non-compliance**
4.6.5	Details to be collected include the following: date, wind speed and direction, weather conditions, atmospheric conditions, cloud cover, location of the blast and quantity of explosives used. These details shall be entered into the site blast database. This shall also be the responsibility of the Environment Coordinator.	
4.6.14	The AEMR will also be placed on the Drayton website annually.	The 2012 AEMR was not made available on the Drayton website during the audit. **Administrative non-compliance**

3.7 *Spontaneous Combustion Management Plan* (AngloAmerican, January 2012)

Table 16 shows the conditions that were found to be non-compliant with the *Spontaneous Combustion Management Plan* (AngloAmerican, January 2012). A detailed assessment of compliance for each condition is outlined in **Appendix J**. One recommendation was made by the auditors in relation to compliance with *Spontaneous Combustion Management Plan* (AngloAmerican, January 2012) (refer **Table 29**).

Table 16 Non-compliances against *Spontaneous Combustion Management Plan* (AngloAmerican, January 2012)

Reference	Commitment	Audit Finding
4.2	Drayton's Spontaneous Combustion Management Plan will be updated every three years. The SHE Department will be responsible for conducting this review.	Given that the previous version of the Spontaneous Combustion Management Plan (AngloAmerican, January 2012) was dated June 2008, it can be concluded that this commitment has not been complied with. **Administrative non-compliance**

3.8 *Air Quality Management and Monitoring Plan* (AngloAmerican, November 2013)

The requirements in the *Air Quality Management and Monitoring Plan* (AngloAmerican, November 2013) were audited by the Specialist Air Quality Auditor. **Table 17** shows the conditions that were found to be non-compliant with *Air Quality Management and Monitoring Plan* (AngloAmerican, November 2013). A detailed assessment of compliance for each condition is outlined in **Appendix K**. Three recommendations were made by the auditors in relation to compliance with the *Air Quality Management and Monitoring Plan* (AngloAmerican, November 2013) (refer **Table 29**).

Table 17 Non-compliances against *Air Quality Management and Monitoring Plan* (AngloAmerican, November 2013)

Reference	Commitment	Audit Finding
4.2	This management plan shall be subject to a review every three years or as otherwise directed by the Director-General. It may also be reviewed as a result of findings from independent audits or in light of any significant changes, both operational and procedural to the approved Environmental Assessment. The SHE Manager shall be responsible for coordinating such reviews.	Given that the previous version of the Air Quality Management and Monitoring Plan (AngloAmerican, November 2013) was dated December 2009, it cannot be concluded that this requirement was complied with during the audit period. **Administrative non-compliance**
4.12	In addition, Drayton also operates an automatic weather station, which updates current weather conditions on a five-minute basis. This station complies with the requirements of the Approved Methods for Sampling of Air Pollutants in New South Wales guidelines. Real time information is downloaded to a central computer file, whereby information can be utilised to assist in the day-to-day operational issues as well as long-term analysis of environmental data.	During the current audit, the meteorological stations onsite were inspected and observed to be operating correctly. However the site was not able to provide relevant calibration records for one of the meteorological stations. **Administrative non-compliance**
4.13	Anglo American have internal audits on a periodic basis. The findings of Air Quality and dust audits will go towards assessing the effectiveness of the existing air quality management system. Audit findings that refer to air quality will be included into "Enablon" where they can be tracked and managed.	Auditors sighted evidence of air quality components of annual internal audits being undertaken. **Administrative non-compliance**

3.9 *Water Management Plan* (Anglo Coal, November 2009)

Table 18 shows the conditions that were found to be non-compliant with *Water Management Plan* (Anglo Coal, November 2009). A detailed assessment of compliance for each condition is outlined in **Appendix L**. Seven recommendations were made by the auditors in relation to compliance with the *Water Management Plan* (Anglo Coal, November 2009) (refer **Table 29**).

Table 18 Non-compliances against *Water Management Plan* (Anglo Coal, November 2009)

Reference	Commitment	Audit Finding
5.2	This procedure shall be subject to a review every three years and in consultation with the relevant government agencies. The S&SD Manager shall be responsible for such reviews.	Given that the latest version of the Water Management Plan is dated November 2009, it can be concluded that this commitment has not been complied with. **Administrative non-compliance**
5.6.1.3	One dam at Drayton is listed with the NSW Dam Safety Committee under the provisions of the Dams Safety Act 1978, that being 2081 (Access Road Dam). As required by the listing of this dam with the Dam Safety Committee, an annual surveillance report is undertaken and submitted.	The most recent surveillance report for the Access Road Dam was undertaken in 2015, prior to that, the previous report was undertaken in 2010. It can be noted that the DSC's requirement for these reports has always been on a five-yearly basis rather than annually. **Administrative non-compliance**

Reference	Commitment	Audit Finding
5.6.1.4	Drayton does not have a licence to discharge mine water off site under the POEO Act (1997) from the DECCW, however credits are retained under the Hunter River Salinity Trading Scheme (HRSTS) for water trading purposes. However Drayton does have a water sharing arrangement with Mt Arthur Coal (MAC) to transfer up to 600ML of excess mine water to the neighbouring MAC mine. This water is transferred via pipeline from Drayton to Mt Arthur Coal. Recorded volumes of transfers are contained in Drayton's AEMR.	While the 2012, 2013 and 2014 AEMRs reiterate the fact that Anglo Coal is licensed to supply water to Mt Arthur, no volume of water transferred to Mt Arthur Coal was provided in any of these AEMRs. **Administrative non-compliance**
5.6.2	Erosion and sediment control structures at Drayton have been designed to be consistent with the objectives and targets as outlined in Managing Urban Stormwater: Soils and Construction Manual (Landcom 2004 or previous versions). Historically erosion and sediment control structures have been designed and constructed by the NSW Department of Lands on areas of rehabilitation. These structures are reviewed annually by the Department of Industry and Investment (DII) from details supplied in Drayton's AEMR. Further, the DII completes annual inspections of the operation to confirm any issues that need to be addressed.	The previous audit found the site not to be compliant with the Managing Urban Stormwater: Soils and Construction Manual, mainly due to the lack of sufficient information in the erosion and sediment control section of the Water Management Plan (Anglo Coal, November 2009). Given that the Water Management Plan has not been updated since, it can be concluded that these requirements are still not being met. **Administrative non-compliance**
5.6.2.4	Rehabilitated areas are visually inspected regularly for damage or maintenance purposes. For example, if a significant rainfall event should occur, rehabilitation areas are inspected to determine that no damage has been sustained by diversion banks. If damage is discovered, a management plan is implemented to repair the damage as soon as practical after the event. Any remediation work undertaken is detailed in the AEMR and the annual rehabilitation report.	It is noted that a storm event occurred the night before the auditors first attended site, and no comprehensive check of rehabilitation areas was conducted by Anglo Coal staff. It is recommended that the system of post rainfall inspections be reviewed to include rehabilitation areas, sediment and erosion control measures, and the potential for offsite discharge. **Administrative non-compliance**
5.6.3.2	Surface water monitoring occurs on a monthly basis and at locations listed in Table 2. Locations of these sampling sites are shown in Figure 10. Since Drayton is located at the headwaters of streams, surface water flows in creeks rarely occur. However, should excessive rainfall occur, that leads to surface runoff in streams, these will be sampled as per the normal regime of monitoring, with the same suite of analytes as normally sampled.	The locations now monitored for surface water quality differ from those identified on Figure 10. It is recommended that the Water Management Plan be updated to reflect the current monitoring locations. **Administrative non-compliance**
5.6.3.2	Internal trigger levels have been established, where an internal investigation will be conducted to determine the factors which have led to a result which exceeds 8000µS/cm for electrical conductivity or pH levels are recorded outside of the range 6.0 - 9.0. Dependent upon the investigation findings, mitigation measures may be implemented as per Section 5.6.6.3 of this	There is an EC result of 22,100 from 21 September 2015, but no indication that this was investigated. **Administrative non-compliance**

Reference	Commitment	Audit Finding
	management plan. Any mitigation measures implemented will be detailed and assessed in the AEMR.	
5.6.3.3	Since all mine water is contained within the internal mine water management system and is not discharged off site, downstream management is minimal. If a significant rainfall event occurs, regular inspections are undertaken of the water storages to determine that no mine affected water has left the site. These inspections are documented within the existing site environmental database and continued until the effects of the extreme rainfall event have subsided.	It is noted that a storm event occurred the night before the auditors first attended site, and no comprehensive check of surface water structures was conducted by Anglo staff. Interviews with onsite personnel confirmed that post rainfall inspections are carried out by maintenance staff across various parts of the Site, but there is no clear trigger for these inspections, and no records are made. **Non-compliant - Low**
5.6.3.4	In addition, Drayton will regularly (at least quarterly) prepare a summary of monitoring results and make these publicly available on Drayton's website.	A review of monitoring results available on the Drayton website has not found consistent information relating to water quality monitoring. The monthly monitoring results summaries available on the website do not include surface water or groundwater results. Only one quarterly monitoring report was able to be accessed by the auditors from the Drayton website: for Q1 2012, which is outside of the current auditing period. **Administrative non-compliance**
5.6.4.1	Review, assessment and long term trend analysis of the bores that are monitored at Drayton are included as a component of Drayton's AEMR. The monitoring results are compared to the assessment criteria (as per Section 5.6.4.3), baseline data (Section 5.6.4.1) and an assessment of comparisons with EA predictions (Section 5.6.4.1) will be incorporated into Drayton's AEMR.	No such review against the groundwater model predictions or the water usage predictions contained in the environmental assessment was provided in the 2012, 2013 or 2014 AEMRs. **Administrative non-compliance**
5.6.4.2	Ongoing monitoring will determine if mining is impacting on the groundwater supply of any known privately owned bores as discussed in Section 5.6.4.4. Results of this monitoring and impacts will be included in Drayton's AEMR.	Section 3.4 of the 2012, 2013 and 2014 AEMRs discusses ground water levels, but no water quality. **Administrative non-compliance**
5.6.4.3	The Groundwater Impact Assessment undertaken for the Drayton Environmental Assessment explained that typical groundwater quality in the Permian coal seam aquifer is typically between 490 and 5000 uS/cm and within a range of 6.5 to 8. Should groundwater monitoring result in levels outside of these ranges, an additional repeat analysis will be conducted.	There is an EC result of 22,100 from 21 September 2015, but no indication that this was investigated. This commitment is also not entirely clear when read in conjunction with the original Groundwater Impact Assessment prepared in 2006. **Administrative non-compliance**
5.6.4.4	Annual volumes of water extracted from pit sumps will be estimated and will be included as part of the water balance included in the AEMR.	These amounts were included in Section 3.4 of the 2013 and 2014 AEMRs, but were not provided in the 2012 AEMR.

Reference	Commitment	Audit Finding
	Groundwater seepage volumes will be calculated from pumping records obtained during the mining operation.	**Administrative non-compliance**
5.6.4.5	In addition, standing water levels will be compared to the steady state calibration results as detailed in the environmental assessment.	This is not clearly demonstrated in the AEMRs. **Administrative non-compliance**
5.6.4.6	As a requirement of Drayton's project approval conditions all monitoring data must be presented in the AEMR to the Director General. A copy of this report is also forwarded to the following agencies: DII; NoW; Muswellbrook Shire Council (MSC); Dam Safety Committee (DSC); Department of Environment, Climate Change and Water (DECCW); and Drayton's Community Consultative Committee members. A copy will also be placed on Drayton's website which is publicly available.	No such review against the groundwater model predictions or the water usage predictions contained in the environmental assessment was provided in the 2012, 2013 or 2014 AEMRs. **Administrative non-compliance**
5.6.4.6	This shall also include a review against the groundwater model predictions in the environmental assessment.	
5.6.4.6	Water usage is also a component of annual reporting and as such water usage will be compared to predictions in the environmental assessment.	
5.6.4.6	These assessments will be included in the AEMR.	
5.6.4.6	In addition, Drayton will regularly (at least quarterly) prepare a summary of monitoring results and make these publicly available on Drayton's website.	A review of monitoring results available on the Drayton website has not found consistent information relating to water quality monitoring. The monthly monitoring results summaries available on the website do not include surface water or groundwater results. Only one quarterly monitoring report was able to be accessed by the auditors from the Drayton website: for Q1 2012, which is outside of the current auditing period. **Administrative non-compliance**
5.6.7	Anglo Coal Drayton Mine have previously supplied the Mt Arthur Coal (formerly Bayswater Coal Company) with additional mine water. This arrangement ensured excess water available at Anglo Coal Drayton Mine was utilised in mining operations. This arrangement continues to operate and has had no adverse impacts to date. Water is transferred by enclosed pipe from Drayton's Rail Loop Dam direct to water storage tanks at Mt Arthur Coal's washery. All volumes of water transferred to other mining or industrial facilities is recorded and reported in Drayton's AEMR.	While the 2012, 2013 and 2014 AEMRs reiterate the fact that Anglo Coal is licensed to supply water to Mt Arthur, no volume of water transferred to Mt Arthur Coal was provided in any of these AEMRs. **Administrative non-compliance**

3.10 *Offset Strategy* (AngloAmerican, 23 September 2015)

The requirements in the *Offset Strategy* (AngloAmerican, 23 September 2015) were audited by the Specialist Rehabilitation and Closure Auditor. A detailed assessment of compliance for each of the conditions in the *Offset Strategy* (AngloAmerican, 23 September 2015) is outlined in **Appendix M**. All conditions were found to have been complied with. Furthermore, no recommendations were made by the auditors in relation to compliance with the *Offset Strategy* (AngloAmerican, 23 September 2015).

3.11 *Rehabilitation and Offset Management Plan* (AngloAmerican, October 2013)

The requirements in the *Rehabilitation and Offset Management Plan* (AngloAmerican, October, 2013) were audited by the Specialist Rehabilitation and Closure Auditor. **Table 19** shows the conditions that were found to be non-compliant with the *Rehabilitation and Offset Management Plan* (AngloAmerican, October, 2013). A detailed assessment of compliance for each of these conditions is outlined in **Appendix N**. Two recommendations were made by the auditors in relation to compliance with the *Rehabilitation and Offset Management Plan* (AngloAmerican, October, 2013) (refer
Table 29).

Table 19 ***Rehabilitation and Offset Management Plan*** **(AngloAmerican, October 2013)**

Reference	Commitment	Audit Finding
4.2	An intermediate review of this ROMP will be undertaken by February 2014 to incorporate recommendations from the 2013 flora and fauna monitoring report.	This review was not undertaken. **Administrative non-compliance**
4.2	Each year, the survivorship of seedlings in the establishing woodland areas will be assessed and the requirements for further tube stock planting or other maintenance determined. If required, a botanist may be used to help determine which species are present, and which should be planted to achieve the target vegetation community. The annual reviews and the monitoring data may also be used to identify weed infestations and to target areas that need more input to achieve satisfactory results.	Section 5 of the 2012, 2013 and 2014 AEMRs discusses how annual flora and fauna monitoring took place. However no summary of these monitoring results is provided in the AEMRs and the auditors were not otherwise able to confirm that the survivorship of remaining seedlings is monitored and recorded by the site. It is recommended that future annual flora and fauna monitoring results include rates of survivorship. **Administrative non-compliance**
4.9.8	All workers will be briefed about the presence of sites of cultural significance prior to any works commencing to encourage due respect and awareness for the preservation and integrity of these areas.	The site's Permit to Disturb Land Form does contain a requirement to consider the possible presence of Aboriginal heritage. However the overall site induction information does not contain information about cultural heritage (Aboriginal or otherwise). **Administrative non-compliance**

3.12 *Final Void Management Plan* (Anglo Coal, November 2008)

The requirements in the *Final Void Management Plan* (Anglo Coal, November 2008) were audited by the Specialist Rehabilitation and Closure Auditor. **Table 20** shows the condition that was found to be non-compliant with *Final Void Management Plan* (Anglo Coal, November 2008). A detailed assessment of compliance for each condition is outlined in **Appendix O**. No recommendations were made by the auditors in relation to the *Final Void Management Plan* (Anglo Coal, November 2008).

Table 20 Non-compliance against *Final Void Management Plan* (Anglo Coal, November 2008)

Reference	Commitment	Audit Finding
5.2	This management plan is to be reviewed at least every three years or as otherwise directed by the Director-General of the NSW Department of Planning.	The review schedule for the *Final Void Management Plan* (Anglo Coal, November 2008) has not strictly followed this schedule. However the drafting of the latest *Mining Operations Plan 2015-2020* evidences a commitment to review and update these requirements in consultation with the regulators. **Administrative non-compliance**

3.13 *Mine Closure Plan* (Anglo Coal, January 2009)

The requirements in the *Mine Closure Plan* (Anglo Coal, January 2009) were audited by the Specialist Rehabilitation and Closure Auditor. **Table 21** shows the conditions that were found to be non-compliant with *Mine Closure Plan* (Anglo Coal, January 2009). A detailed assessment of compliance for each condition is outlined in **Appendix P**. No recommendations were made by the auditors in relation to the *Mine Closure Plan* (Anglo Coal, January 2009).

Table 21 Non-compliances against the *Mine Closure Plan* (Anglo Coal, January 2009)

Reference	Commitment	Audit Finding
4.6.11	Cultural Heritage Sites: A total of 39 sites were identified during the 2007 Part 3A approval process. Of these, 26 sites will be salvaged as necessary by the local Aboriginal representatives. The remaining 13 sites will be conserved at this point as they lie outside the zone of disturbance and as such these will remain intact. All sites have been fenced to restrict access and to preserve identified artefacts.	The site was not able to provide evidence of ongoing management/inspections of in situ Aboriginal heritage items which remain fenced off. **Administrative non-compliance**

3.14 *Aboriginal Cultural Heritage Management Plan* (Anglo Coal, October 2008)

Table 22 shows the conditions that were found to be non-compliant with the *Aboriginal Cultural Heritage Management Plan* (Anglo Coal, October 2008). A detailed assessment of compliance for each condition is outlined in **Appendix Q**. Four recommendations were made by the auditors in relation to the *Aboriginal Cultural Heritage Management Plan* (Anglo Coal, October 2008) (refer **Table 29**).

Table 22 Non-compliances against *Aboriginal Cultural Heritage Management Plan* (Anglo Coal, October 2008)

Reference	Commitment	Audit Finding
4.6.5	Implement a programme for the conservation of the existing sites outside the surface disturbance area.	The site was not able to provide evidence of ongoing management/inspections of in situ Aboriginal heritage items which remain fenced off. **Administrative non-compliance**
4.7.6	**Conservation Methods** Anglo Coal (Drayton Management) will use the approval conservation methods and techniques to ensure sites are conserved outside the mine	

Reference	Commitment	Audit Finding
	footprint: - Deciding on how big an area (area of buffer zone) should be used to protect the perimeter of the Aboriginal site object; - Using appropriate fencing to ensure machinery and vehicles do not disturbed the land surrounding the Aboriginal site or object; - Using accurate identification of sites using appropriate signage so that contractors and Anglo Coal staff know what the area is and why it is being protected; - Providing accurate up to date maps and plans with sites located on them so that all Anglo Coal staff and contractors know where sensitive "no go" areas are located within the mine operations area; - Controlling soil erosion impacts by implementing complimentary soil erosion control works around the site; and - Re-directing roads or vehicle tracks which may pass close to the site and could cause indirect impacts.	
4.7.6	**Cultural Awareness Training Programme** To reduce the risk of Aboriginal site impacts and improve the general awareness of Anglo Coal staff and employees to Aboriginal cultural heritage issues, Anglo Coal will provide cultural awareness training to its staff and contractors as part of its Induction process. The will introduce contractors and staff to the fundamentals of why and how Aboriginal heritage and culture is protected in NSW and what their role is in protecting Aboriginal sites and object within the Drayton Mine lease.	The overall site induction information does not contain information about cultural heritage (Aboriginal or otherwise). **Administrative non-compliance**
4.7.6	This training should also explain the procedure to be implemented if an existing or new Aboriginal site or object is uncovered or disturbed during mine operations work.	
4.8.2	To reduce the risk of accidental disturbances to Aboriginal objects and sites, the Safety & Sustainable Development Manager should regularly conduct internal audits to ensure management and employees are aware of the need to identify and protect Aboriginal objects and artefacts.	A general observation is made by the audit team that the environmental staff employed at the site were not aware of the current status of Aboriginal cultural heritage items at the site, both in terms of those that remain in situ and those which have been previously subject to salvage. It is therefore assumed that this requirement has not been complied with. It is also noted that the overall site induction information does not contain information about cultural heritage (Aboriginal or otherwise). **Administrative non-compliance**
4.8.2	These audits should include: - Continuous appraisal of site activity to ensure prevention and/or control of disturbance to sites and objects of Aboriginal significance; - Assessment of compliance with this	

Reference	Commitment	Audit Finding
	Aboriginal heritage risk management procedures and documents (i.e. ACHMP); - Assessment of management and employee awareness of the need to identify and preserve Aboriginal objects and artefacts; and - Assessment of employee and contractor awareness and ability to identify Aboriginal heritage issues within their operational area of responsibility.	
4.9	Anglo Coal's on-going risk management approach for its Aboriginal heritage cultural resources should involve the following management performance objectives: - Aboriginal sites and objects must be keep intact and preserved until they are ready to be salvaged, (e.g. collected, excavated etc.); - Aboriginal sites and objects must be actively managed to avoid accidental impacts; - Staff (including contractors) must be trained and made aware of their responsibilities concerning sites and operational activities; - Work practices should spell out clearly the roles and responsibilities of all staff in managing Aboriginal cultural heritage resources on the mine site; - Aboriginal sites and objects must be clearly identified in the field. Areas need to be fenced and appropriate signage used; - Supervisors and plant operators should be aware of the location of Aboriginal sites and the boundaries; and - All plans and operation notes must clearly show the location of known sites.	The site's Permit to Disturb Land Form does contain a requirement to consider the possible presence of Aboriginal heritage. However, a general observation is made by the audit team that the environmental staff employed at the site were not aware of the current status of Aboriginal cultural heritage items at the site, both in terms of those that remain in situ and those which have been previously subject to salvage. It is therefore assumed that this requirement has not been complied with. It is also noted that the overall site induction information does not contain information about cultural heritage (Aboriginal or otherwise). **Administrative non-compliance**
4.9.1	The above performance objectives should be measured using regular internal audits and monitoring and details shall be included in the Annual Environmental Management Report section on the cultural management.	A general observation is made by the audit team that the environmental staff employed at the site were not aware of the current status of Aboriginal cultural heritage items at the site, both in terms of those that remain in situ and those which have been previously subject to salvage. It is therefore assumed that this requirement has not been complied with. **Administrative non-compliance**
4.10	Anglo Coal will develop a site-orientated induction program for all staff and contractors who will require training in cultural heritage risk management. Training and induction sessions will aim to make staff and contractors aware of their obligations regarding the preservation of items that are of Aboriginal Cultural Heritage significance.	The overall site induction information does not contain information about cultural heritage (Aboriginal or otherwise). **Administrative non-compliance**
4.10	Training packages will be developed that clearly	

Reference	Commitment	Audit Finding
	locate sites of significance, provide contact details of people to contact if a problem occurs at one these sites, a description of common artefacts, and provide a detailed description of relevant acts and legal responsibilities.	
4.10	Records of the employees and contractors that have been trained in archaeology and cultural heritage management will be maintained in the Anglo Coal induction database.	

3.15 *Greenhouse and Energy Efficiency Plan* (Anglo Coal, May 2008)

Table 23 shows the conditions that were found to be non-compliant with *Greenhouse and Energy Efficiency Plan* (AngloCoal, May 2008). A detailed assessment of compliance for each condition is outlined in **Appendix R**.
No recommendations were made by the auditors in relation to compliance with *Greenhouse and Energy Efficiency Plan* (AngloCoal, May 2008).

Table 23 Non-compliances against *Greenhouse and Energy Efficiency Plan* (Anglo Coal, May 2008)

Reference	Commitment	Audit Finding
5.1	**S&SD Manager** - Considering energy efficiency and greenhouse emissions during the procurement of new equipment; - Considering energy efficiency and greenhouse gas emissions during business planning processes at management level; - Seeking opportunities to improve energy efficiency and minimise greenhouse gas emissions; - Considering energy efficiency in all business improvement projects; and - Recommending energy improvement projects for approval and over viewing project performance.	Nothing was provided to the auditors suggesting that the SHE Manager is actively involved in this process of reducing onsite greenhouse gas emissions. **Administrative non-compliance**
5.2	This management plan is to be reviewed at least every three years or as otherwise directed by the Director-General of the NSW Department of Planning. The review process is to reflect independent environmental audit findings, changes in environmental legislation, standards and guidelines, and changes in technology or operational procedures.	Given the date of the current *Greenhouse and Energy Efficiency Plan* (AngloCoal, May 2008), it can be concluded that this commitment was not complied with during the audit period. The Energy Optimisation Assessment, Drayton Mine (AngloAmerican, 2014) was undertaken in 2014, however this did not link the Site's performance with its *Greenhouse and Energy Efficiency Plan* (AngloCoal, May 2008), nor did it constitute a review of the *Greenhouse and Energy Efficiency Plan* (AngloCoal, May 2008). **Administrative non-compliance**
5.2	In accordance with Project Approval (06_ 0202), at the end of year two of the development, and every three years from there on, Drayton will commission an independent environmental audit to the satisfaction of Director-General of the NSW Department of Planning.	The previous IEA made recommendations against the *Greenhouse and Energy Efficiency Plan* (AngloCoal, May 2008). However there is no evidence that these recommendations

Reference	Commitment	Audit Finding
	The audit will include an assessment of the adequacy of all management plans. Following the audit, this management plan may be updated if appropriate.	were considered for implementation by the site. The Energy Optimisation Assessment, Drayton Mine (AngloAmerican, 2014) was undertaken in 2014, however this did not link the Site's performance with its *Greenhouse and Energy Efficiency Plan* (AngloCoal, May 2008), nor did it constitute a review of the *Greenhouse and Energy Efficiency Plan* (AngloCoal, May 2008). **Administrative non-compliance**
5.6.4	To assist in achieving these targets, site energy maps have been developed to monitor monthly performances against the target. Site greenhouse gas emission maps are currently being developed.	There is no evidence that such maps are used. **Administrative non-compliance**
5.6.4	To supplement the energy and greenhouse mapping process, energy management reviews will be undertaken on a 5-year cycle in accordance with the provisions of the Energy Efficiency Opportunities Act 2006 and shall include the following aspects: review of energy saving potentials; energy targets and key performance indicators; metering and monitoring; reporting; supply management; operating and maintenance procedures; accountabilities; training and awareness and compliance with regulatory requirements. A technical review may also be undertaken in accordance with the provisions of ACA's OMS.	There is no evidence that such reviews have been undertaken since this Plan came into effect in 2008. **Administrative non-compliance**
5.6.6	Management actions were identified through an EEO gap analysis which identified areas of continuous improvement benefits could be gained. These actions have been summarised and key areas of improvements identified as detailed in the below table.	Interviews with site personnel confirmed that the site has only recently identified its baseline GHG usage, and no specific GHG reduction measures were implemented and reported during the audit period. **Administrative non-compliance**
5.6.6	Drayton shall investigate and evaluate opportunities for improving greenhouse and energy performance.	
5.6.6	Greenhouse and energy reductions will be coordinated from Drayton in consultation with the ACA corporate office. Details of improvement measures implemented or trialled at a site level will be included in the annual AEMR reporting process and on the ACA website in accordance with the provisions of the Energy Efficiency Opportunities Act 2006.	The 2012 AEMR contained no information about GHG usage. Section 3.1.4 of the 2013 and 2014 AEMRs provided information about overall GHG usage, but did not outline any relevant measures. **Administrative non-compliance**

3.16 *Flora and Fauna Management Plan* (AngloAmerican, July 2013)

Table 24 shows the conditions that were found to be non-compliant with the *Flora and Fauna Management Plan* (AngloAmerican, July 2013). A detailed assessment of compliance for each condition is outlined in **Appendix S**. One recommendation was made by the auditors in relation to compliance with *Flora and Fauna Management Plan* (AngloAmerican, July 2013) (refer **Table 29**).

Table 24 Non-compliances against *Flora and Fauna Management Plan* (AngloAmerican, July 2013)

Reference	Commitment	Audit Finding
4.2	This procedure shall be subject to review every three years. The SHE Manager shall be responsible for such reviews.	Given that the previous version of the *Flora and Fauna Management Plan* (AngloAmerican, July 2013) is dated 2009, it can be concluded that this requirement has not been met. **Administrative non-compliance**

3.17 *Environmental Management Strategy* (Anglo Coal, May 2010)

Table 25 shows the conditions that were found to be non-compliant with the *Environmental Management Strategy* (Anglo Coal, May 2010) were found to be compliant. A detailed assessment of compliance for each condition is outlined in **Appendix T**. Four recommendations were made by the auditors in relation to compliance with *Environmental Management Strategy* (Anglo Coal, May 2010) (refer **Table 29**).

Table 25 Non-compliance against *Environmental Management Strategy* (Anglo Coal, May 2010)

Reference	Commitment	Audit Finding
5.1	Appendix 2 outlines each position within the organisation and the roles they play in each environmental management plan. Appendix 3 details Drayton's organisational chart. Appendix 3 also contains an in depth assessment of the roles and responsibilities of key personnel with regard to environmental management.	Environmental Accountability Matrix and Environmental Accountabilities quoted in the appendices to the Environmental Management Strategy do not appear to have been fulfilled consistently by the nominated Anglo Coal personnel. For instance, Anglo Coal staff were not sure about the existence of the Environmental Management Strategy (Anglo Coal, 2010) during the audit, and the auditors noted general inconsistencies with roles and responsibilities compared to what is outlined in the appendices to this document. **Administrative non-compliance**
5.2	This management strategy is to be reviewed at least every three years or as otherwise directed by the Director-General of DoP. The review process is to reflect independent environmental audit findings, changes in environmental legislation, standards and guidelines, changes in technology or operational procedures and changes in organisational structures at Drayton.	Given the date of the current Environmental Management Strategy (Anglo Coal, May 2010), as well as the fact that onsite personnel were not aware whether the site had an Environmental Management Strategy or not, it can be concluded that this commitment was not complied with during the audit period. **Administrative non-compliance**
5.2	In accordance with Project Approval (06_0202), at the end of year two of the development, and every three years thereafter, Drayton will commission an independent environmental audit to the satisfaction of Director-General of DoP. The audit will include an assessment of the adequacy of all management plans and strategies. Where necessary, following the audit this management strategy may be updated to reflect current practices at Drayton.	The current audit fulfils these requirements. However the previous audit made several recommendations against the EMS which has not been updated. **Administrative non-compliance**
5.6.5	Community newsletters are produced and mailed to all near neighbours and local council.	No reference is made to such newsletters in the CCC minutes, the AEMRs or the Anglo

Reference	Commitment	Audit Finding
	Information presented includes current news relating to the mining operations, upon which may be of interest to the local community.	website. **Administrative non-compliance**
5.6.5	Drayton has, as part of the current approval process, developed a website where environmental data is presented on a quarterly basis, daily blasting information is available, minutes of Community Consultative Committee meetings and environmental management plans and reports are freely available.	The auditors were not able to access all of this information on the Drayton website. Specifically, a copy of the 2012 AEMR and the Environmental Management Strategy (Anglo Coal, 2010) were not available on the Anglo website. A 2008 version of the Noise Management Plan was the only version available online, as well as a 2008 version of the Spontaneous Combustion Management Plan. **Administrative non-compliance**
5.6.5	Drayton also host open days on period occasions, where local community members are invited to the mine for tours, information etc.	No references to open days are mentioned in the AEMRs or the CCC minutes for the audit period. **Administrative non-compliance**
5.6.7	If an exceedance of approval conditions or environment protection licence conditions occurs, Drayton shall report the exceedance to the respective authority within 24 hours of the exceedance becoming known. An internal investigation will be undertaken and findings will be forwarded to the respective authority. Details of any exceedance will also be included in the AEMR.	On 10 January 2014 a significant diesel spill was identified on the site, constituting an environmental harm incident as per the definition afforded in the Protection of the Environment Operations Act 1997. However, the authorities were not notified of this on the same day, and the evidence indicates they were not advised until 13 January 2014. This spill was contained onsite, and was subsequently remediated to the satisfaction of the EPA. Preventative mechanisms were also installed at the site of the diesel spill to prevent future reoccurrence of the same. **Non-compliant - Medium**
5.6.9	If an event occurs during operational processes that results in a non-compliance, whether it could cause or has caused significant environmental harm it must be reported to the site Environmental Coordinator, Safety and Sustainable Development (S&SD) Manager or Mine Manager immediately. The S&SD Manager shall then determine whether the DECCW and/or DoPI should be notified.	

3.18 *Environmental Monitoring Program* (AngloAmerican, July 2013)

Table 26 shows the conditions that were found to be non-compliant with the *Environmental Monitoring Program* (AngloAmerican, July 2013). A detailed assessment of compliance for each condition is outlined in **Appendix U**. Two recommendations were made by the auditors in relation to compliance with *Environmental Monitoring Program* (AngloAmerican, July 2013) (refer **Table 29**).

Table 26 Non-compliances against *Environmental Monitoring Program* (AngloAmerican, July 2013)

Reference	Commitment	Audit Finding
4.2	This monitoring plan is to be reviewed at least every three years or as otherwise directed by the Director-General of DoPI.	The current version of the Environmental Monitoring Plan was updated in July 2013. However the plan had not been updated since June 2008 and was therefore without revision for more than

Reference	Commitment	Audit Finding
		three years during the audit period. **Administrative non-compliance**
4.2	In accordance with Project Approval (06_0202), Drayton will commission an independent environmental audit to the satisfaction of Director-General of DoPI every three years. The audit will include an assessment of the adequacy of all management and monitoring plans. Where necessary, following the audit this monitoring plan may be updated and action taken to improve environmental monitoring practices at Drayton.	The previous audit recommended that the Environmental Monitoring Program be updated to include a quality assurance/quality control plan which is suitable for all monitoring undertaken on site. The Program does not appear to have been updated accordingly. **Administrative non-compliance**
4.7	An automatic weather station has been operational at Drayton since 1982. Temperature, relative humidity, wind speed, wind direction and rainfall are recorded on a five minute basis, with summaries being obtained hourly and daily. This station is operated in accordance with the requirements of the Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (EPA, 2005).	During the current audit, the meteorological stations onsite were inspected and observed to be operating correctly. However the site was not able to provide relevant calibration records for one of the meteorological stations. **Administrative non-compliance**
4.11	Monthly monitored sites that follow the Drayton Water Management Plan are as follows: - Dam 2081 - Dam 2221 - Dam 1895 - Dam 2090 - Dam 2109 - Dam 2114 - Dam 1895 - Dam 1609 - Dam SW13 - Dam 1969	The AEMR 2014 does not contain any monitoring results for Dam 2090. It is recommended that the Environmental Monitoring Program be reconciled with the Water Management Plan to ensure the correct monitoring points are identified. **Administrative non-compliance**
4.8.1	Parameters measured include LAeq, LAmax, LA1, LA10, LA50, LA90 which are measured over a 15 minute time period and are quantified and characterised.	Results for all the required parameters are not recorded within the monthly noise monitoring reports. **Administrative non-compliance**

3.19 *Independent Environmental Compliance Audit – Drayton Coal – Project Approval 06_0202 and Development Application 106-04-00* (Parsons Brinckerhoff, October 2012)

Table 27 shows the recommendations from the previous *Independent Environmental Compliance Audit – Drayton Coal – Project Approval 06_0202 and Development Application 106-04-00* (Parsons Brinckerhoff, October 2012) that were found to have not been actioned yet. A detailed assessment against each of these previous recommendations is outlined in **Appendix V**. Three further recommendations were made by the auditors in relation to ongoing matters (refer **Table 29**).

Table 27 Non-compliances against *Independent Environmental Compliance Audit – Drayton Coal – Project Approval 06_0202 and Development Application 106-04-00* (Parsons Brinckerhoff, October 2012)

Reference	Commitment	Audit Finding
Recommendations against Noise Management Plan	All monitoring could be confirmed to be consistent with guidance in relevant Australian standards, including the calibration of all equipment.	Section 6 of the *Noise Management Plan* (AngloAmerican, May 2014) has not been updated to confirm the use of Australian Standards. This has already been considered non-compliant as per **Table 14**.
Recommendations against Air Quality Management Plan	Drayton Coal may wish to revise the AQMP so to: - Clarify and update the air monitoring network information. This would include providing a table indicating location of monitors (numbered), monitor averaging periods, location coordinates and primary purpose (i.e. monitoring of sources, background, sensitive receptor). Figure 1 in AQMP should be updated accordingly. - Amend the air quality control management practices for dust suppression to take into account the best management practices described in the NSW Coal Mining Benchmarking Study: International Best Practice measures to Prevent and/or Minimise Emissions of Particulate Matter from Coal Mining.	The *Air Quality Management and Monitoring Plan* (AngloAmerican, November 2013) has not been updated accordingly. These have already been considered non-compliant as per **Table 17**.
Recommendations against Water Management Plan	Details on the methodology for the estimated values of water demands, including how variability of demands in different climatic conditions are taken into account. A stochastic site-wide water balance model is developed and verified for the available historical data.	Given that the most recent version of the Water Management Plan is dated November 2009, it can be concluded that these recommendations were not considered. These have already been considered non-compliant as per **Table 18**.
Recommendations against Greenhouse and Energy Efficiency Plan	A revised list of improvement measures which commit to actual measures with specified and detailed actions and associated methodologies, accountabilities and performance indicators.	Given that the most recent version of the Greenhouse and Energy Efficiency Plan is dated May 2008, it can be concluded that these recommendations were not considered. This has already been considered non-compliant as per **Table 23**.

Reference	Commitment	Audit Finding
Recommendations against PA 06-0202	Drayton Coal should review their website management processes so that either Drayton Coal assumes control of the information uploads or processes are made more efficient at the corporate office.	The auditors were not able to access all of this information on the Drayton website. Specifically, a copy of the 2012 AEMR and the Environmental Management Strategy (Anglo Coal, 2010) were not available on the Drayton website. A 2008 version of the Noise Management Plan was the only version available online, as well as a 2008 version of the Spontaneous Combustion Management Plan. This has already been considered non-compliant as per **Table 10**.
Recommendations made against the Erosion and Sediment Control Plan	It is recommended that the following aspects of the ESCP be revised (in accordance with the Managing Urban Stormwater: Soils and Construction Manual): - existing site contours including catchment area boundaries. - locations of critical natural areas requiring special planning of management. - stages of mining. - nature and extent of earthworks, including cut and fill. - locations of all soil stockpiles. - locations of proposed roads. - existing and proposed drainage patterns. - location and types of proposed erosion control measures. - site rehabilitation proposals including final contours. It is also recommended that the ESCP be revised to include more specific detail regarding the maintenance process for sediment control devices.	Given that the latest version of the Water Management Plan is dated November 2009, it can be concluded that this commitment has not been complied with. These have already been considered non-compliant as per **Table 10**.
Recommendations against the Offset Strategy	Drayton Coal should revise the Offset Strategy to include: - commitment of resources for the implementation of offsets. Referencing of appropriate documentation (e.g. the Rehabilitation and Offset Management Plan) will suffice. - a compliance table demonstrating how the offset areas comply with the principles provided in Appendix 9 of the approval.	There is no additional explanation of resourcing, and is no review of compliance against this Appendix 9, simply a statement that the Strategy complies with it. This has already been considered non-compliant as per **Table 10**.
Recommendations made against the	Drayton Coal should ensure that future AEMRs provide the times of all train movements associated with	This rail activity data is provided in Appendix H of the AEMRs 2012, 2013 and 2014.

Reference	Commitment	Audit Finding
AEMRs	Drayton Coal.	However it is noted that the time of each train movement is not provided. This has already been considered non-compliant as per **Table 10**.
	Drayton Coal should ensure that the November 2009 audit report is posted on the Drayton Coal website.	This was not available on the Drayton website at the time of the audit. This has already been considered non-compliant as per **Table 10**.
Recommendations against DA 106-04-00	Drayton Coal should revise the Environmental Coordinator's position description to include the authority to cease work activities that may cause adverse environmental impact, or require any other reasonable steps to be taken to avoid or minimise unintended or adverse environmental impact.	The previous audit recommended that Drayton Coal should revise the Environmental Coordinator's position description to include the authority to cease work activities that may cause adverse environmental impact, or require any other reasonable steps to be taken to avoid or minimise unintended or adverse environmental impact. This position description has not been updated since prior to the previous IEA. This has already been considered non-compliant as per **Table 11**.
	Drayton Coal should revise the EMS to include a clearer reference to the consent. This would include: - providing performance outcomes during operation and decommissioning of the loop and spur. - providing ecological and community objectives for the rail loop and spur.	There is no indication that this has been done. These have already been considered non-compliant as per **Table 11**.
	Drayton Coal should revise the Environmental Monitoring Program to include a quality assurance/quality control plan which is suitable for all monitoring undertaken on site.	There is no indication that this has been done. This has already been considered non-compliant as per **Table 11**.

4.0 Assessment of Environmental Performance

4.1 General Environmental Management

This section provides an assessment of the environmental performance of Anglo Coal, as required by Condition 6(b), Schedule 5 of Project Approval 06_0202 (as modified).

As indicated in **Section 3.0**, several non-compliances were found during the IEA. Some of these non-compliances relate to the same issues which, due to the repetition of commitments between the consent documents and management plans, raise the same issue of non-compliance several times. Many other non-compliances relate to the failure to maintain up to date documentation, mainly management plans, as well as the fact that most of the recommendations from the 2012 IEA do not appear to have been actioned.

A few isolated environmental incidents have occurred at the site during the audit period, including:

- A diesel spill in January 2014 which constituted a material harm incident;
- Failure to undertake PM10 monitoring during 2014 due to power failure on various occasions;
- A blast was required to be fired after 9pm due to safety concerns caused by the incorrect product being loaded; and
- Point 4 TEOM being without power for an extended period due to a power failure.

A general observation is made by the audit team that Anglo Coal's environmental staff do not regularly inspect the site in a coherent manner, and there is some confusion over how environmental tasks are to be delegated should a member of staff be away from work for any period of time.

Certain aspects of the site's environmental management (e.g. blast notification to tenants and inspection of the site's water treatment system) are delegated to other areas of mine management, and environmental staff did not always seem clear on these issues. While the delegation of these matters of environmental management may be appropriate to meet operational needs, it is recommended that there is regular communication between environmental staff and the staff responsible for the day-to-day management of these environmental matters.

General site induction materials also contained little in the way of environmental awareness. Specifically, the general induction materials shown to the auditors did not contain any information pertaining to:

- Waste segregation;
- Heritage, whether Aboriginal or non-Aboriginal; or
- The fact that serious environmental incidents (i.e. material harm incidents) are required to be notified immediately.

During the site visits conducted on 3, 4, 5 and 9 November 2015, the auditors also made the following observations:

- Wastes segregation practices do not appear to be followed consistently, for example, oily rags were observed in general waste bins;
- The placement of spill containment kits did not always appear adequate given the size of the site;
- Anglo Coal environment staff did not undertake any visual inspection of the site on 3 November (the morning after a significant storm event had occurred); and
- The drain at the front of the maintenance workshop appeared to be full, although it was not due for another clean out anytime soon.

4.2 Predictions Made in Environmental Assessments

This section provides an assessment of the environmental performance of Drayton Coal Mine against the predictions made in the Environmental Assessments for the mine. Two environmental assessments are applicable to the Drayton Coal Mine, including:

- *Mine Extension Environmental Assessment* (Hansen Bailey, November 2007) (2007 EA).
- *Antiene Joint User Rail Facility Environmental Impact Statement* (Umwelt, March, 2000) (2000 EIS).

The 2007 EA assessed the potential impacts associated with the continuation of mining up to 31 December 2017 at a coal extraction rate of up to 8 Mtpa of ROM coal, and other upgrades and modifications. The 2007 EA included a Statement of Commitments which outlined the mitigation measures to be implemented to minimise and manage environmental impacts resulting from the development. The requirements of Project Approval 06_0202 are consistent with the measures set out in the 2007 EA and the Statement of Commitments is attached to the Project Approval as Appendix 3. The assessment of compliance against the Project Approval (refer to **Section 3.1**) is therefore considered to adequately assess Anglo Coal's compliance with the 2007 EA.

The 2000 EIS assessed the potential impacts associated with operation of the existing Drayton Rail Loading Facility to transport up to 7 Mtpa of coal from the rail loop, and use of the Antiene Rail Spur up to a limit of 20 Mtpa. The requirements contained within the Development Consent DA 106-04-00 reflect the commitments made in the 2000 EIS. Therefore the assessment of compliance against the Development Consent (refer to **Section 3.1**) is considered to adequately assess Anglo Coal's compliance with the 2000 EIS.

Table 28 provides a brief summary of the audit's assessment of compliance against the predictions made in the 2007 EA and the 2000 EIS.

Table 28 Assessment of performance against predictions made in the 2007 EA and 2000 EIS

Assessment Prediction	Audit Findings
2007 EA	
Air quality Air quality modelling indicates that all relevant air quality criteria will be met during the life of the Project and there are no predicted exceedances of any air quality criteria at any receivers.	No exceedances of air quality criteria occurred during the audit period (refer to Condition 21 of Project Approval 06_0202).
Spontaneous combustion Analysis suggests that it is unlikely that the OEH's ambient air quality criteria for odour will be exceeded in the Antiene Estate due to the Project.	Drayton Coal continues to receive occasional odour complaints from a Scone resident. Each incidence is investigated, however since Scone is located approximately 30 km from Drayton Coal, it is unlikely that Drayton Coal is responsible.
While some spontaneous combustion emissions and odour impacts may continue to occur sporadically, the monitoring data indicates that the levels of particulate matter and hydrocarbons, coupled with ongoing management, will comply with health-based air quality standards at the closest adjoining private receivers.	No exceedances of air quality criteria occurred during the audit period (refer to Condition 21 of Project Approval 06_0202).
It is envisaged that the occurrence of spontaneous combustion will decrease and the effects of spontaneous combustion will be effectively reduced to zero by the end of the life of the Project.	The 2012, 2013 and 2014 AEMRs report on the area of land affected by spontaneous combustion (1095 m^2, 1090 m^2 and 1060 m^2 of surface area, respectively), which has slightly decreased each year. Remediation activities have been undertaken and are due to continue.
Greenhouse Gas The annual average emissions from Scope 1 and 2 sources for the Project are predicted to be 355,627 tonnes $CO_{2\ equivalent}$ emissions, whilst the approximate worst-case annual average emission rate for spontaneous combustion is predicted to be 30,280 tonnes $CO_{2\ equivalent}$ emissions.	Interviews with site personnel confirmed that the site has only recently identified its baseline GHG usage, and no specific GHG reduction measures were implemented and reported during the audit period.
Noise Noise levels predicted for the Project were found likely to remain within the appropriate noise criteria at all receivers during neutral and noise reducing weather conditions, which occur for a significant proportion of the time.	There were no exceedances of noise criteria, however there are some concerns about how noise levels are monitored. The monthly noise monitoring does not appear to be undertaken in accordance with the approved methodology. Noise levels are arbitrarily separated into contributions from different sources, do not appear to be specific to the operations undertaken onsite at the time of measurements, and is not calibrated against

Assessment Prediction	Audit Findings
	measurements taken. Refer to **Section 3.5**.
23 receivers are expected to receive noise levels over the adopted intrusive noise criteria in at least one assessed year and time period under prevailing weather conditions. In a worst-case modelling scenario, two receivers may incur noise levels 5 dB above the criteria. A further two receivers may incur noise levels slightly below this.	There were no exceedances of noise criteria, however as detailed above there are some concerns about how noise levels are monitored (refer to **Section 3.5**).
Blasting and vibration The Project will generally result in additional, rather than larger blasts, using similar blast hole diameters and charge weights as currently utilised. The increase in the average number of blasts per week for the Project is unlikely to result in any damage to receivers.	No exceedances of blasting criteria have occurred during the audit period. Independent investigations have previously been requested from local residents, and the auditors sighted evidence of the inspections being carried out. There have been no reports of damage resulting from blasting and vibration.
The Project will result in blasts occurring up to approximately 500 metres closer to the nearest Antiene Estate receivers than is currently the case.	No exceedances of blasting criteria have occurred during the audit period. Drayton Coal notifies registered landowners in advance of blasting, and provides public notification of the blasting schedule through the Blasting Hotline.
With careful ongoing management, the OEH's amenity criteria will continue to be achieved for all blasts.	No exceedances of blasting criteria have occurred during the audit period. Drayton Coal continues to receive blast related complaints, which are investigated and a response provided to the complainant.
Groundwater The assessment concluded that the simulated groundwater inflow into the Environmental Assessment Boundary will remain unchanged as a result of the Project from current conditions with a predicted peak inflow of 2.7 ML per day.	This groundwater monitoring continues at the site, however review against the groundwater model predictions or the water usage predictions contained in the environmental assessment has not been undertaken.
A search of the Department of Water and Energy database indicates that there are three private groundwater bores within 10 km of the Environmental Assessment Boundary, which may be affected by the Project. A census of these bores will be undertaken to manage any impacts.	NoW has indicated that these private bores are no longer being used.
Three voids will remain at the cessation of mining as a result of the Project. If these voids are left as open water bodies, they will act as groundwater sinks and the final steady state void water level will be reached after more than 200 years.	This prediction cannot be assessed at this time. To be assessed in future audits.
Flora and fauna An Assessment of Significance conducted for the Forest Red Gum Open Forest & Woodland determined that the Project is not expected to have a significant impact on this community.	A review of site documentation as well as the site visit conducted by the auditors confirmed that the site generally seems to be tracking toward the criteria set out in the EA to mitigate the loss of woodland vegetation.
The 'Natural Zone' of the Drayton Wildlife Refuge will not be impacted by the Project and will continue to be managed to enhance its flora and fauna values. The management of this area will compensate for the impacts of the Project on flora and fauna.	A review of site documentation as well as the site visit conducted by the auditors confirmed that the site generally seems to be tracking toward the criteria set out in the EA, which includes passive management of Drayton wildlife Refuge.

Assessment Prediction	Audit Findings
Rehabilitation, final landform and void Rehabilitation of land disturbance will continue to occur progressively, aiming to link rehabilitation and remnant vegetation through the establishment of woodland corridors. Rehabilitation will aim to establish as much of the pre-mining floristic diversity as possible.	Rehabilitation continues to be undertaken progressively and status is reported in the AEMRs. The 2014 AEMR reported a total rehabilitated area of 514 ha.
It is anticipated the North Pit void may be used for coarse reject emplacement from adjacent mining operations, whilst the South Pit void is expected to retain water. An agreement is in place between Drayton Mine and Macquarie Generation for Macquarie Generation to place fly ash in the East Pit void. The placement of fly ash in this void and its rehabilitation will be the responsibility of Macquarie Generation.	This prediction cannot be assessed at this time due to current mining activities. To be assessed in future audits.
Surface water The existing mine water management system will be expanded for the Project and while the volume of water managed through the system will generally increase, the water balance will remain substantially unchanged.	Impacts as predicted. Site water balance is provided in the 2012, 2013 and 2014 AEMRs.
The upgrade to the Coal Handling Plant will allow the continued reuse and recirculation of water through the water management system. This is described in the site water balance (as part of the WMP).	Impacts as predicted. Site water balance is provided in the 2012, 2013 and 2014 AEMRs.
Visual This assessment concluded that some viewing sectors surrounding the Project may experience moderate to low visual impacts for short periods until shaping and rehabilitation is completed. No long-term significant visual impact was identified at any of the viewing sectors throughout the life of the Project. The visual effect of lighting associated with the Project will be at a similar level to that currently approved and experienced.	Impacts as predicted. The 2014 AEMR reports that tree planting occurred along Thomas Mitchell Drive in 2007 and in 2012. Trees were planted in areas that are visible to both the New England Highway and Thomas Mitchell Drive to provide future relief from linear rehabilitated contours. Mobile lighting is managed to prevent visual impacts. No lighting related complaints were received during the audit period.
The Project extends the timeframe to which direct and diffuse lighting effects will be experienced; however, the level of impact from both direct and diffuse light effects is not considered significant.	Offsite lighting is restricted predominantly to some parts of the rail loader and to lighting around the rail loop. The lighting is similar to street lighting.
Aboriginal archaeology The majority of material consisted of exposed stone artefacts located within gully features on sloping ground. The Project is likely to impact on a total of 29 of these Aboriginal sites.	The Aboriginal Cultural Heritage Management Plan notes that 26 sites would be directly impacted, and that 13 sites would be nominally preserved. There was no evidence of ongoing management/inspections of in situ Aboriginal heritage items which remain fenced off.
The Aboriginal Archaeology and Cultural Heritage Plan will be revised for the Project to facilitate the salvage of the 29 sites identified to be impacted and ensure the continued management and protection of the remaining Aboriginal sites.	Drayton Coal has revised the ACHP in accordance with the approval requirements.
Non-Aboriginal heritage The field survey identified five Non-Aboriginal heritage sites within the Environmental Assessment Boundary, none of which were statutorily listed. One of these sites was of high local significance and although this site will not be impacted by the Project, a physical barrier will be	The previous audit confirmed that Drayton Coal has installed a physical barrier.

Assessment Prediction	Audit Findings
established around it to prevent accidental damage and maintain its heritage value.	
Traffic and transport The Project is considered to have no significant impacts on the surrounding road network and thus, no significant cumulative impacts are anticipated.	Impacts as predicted.
Domestic coal from Drayton Mine will continue to be transported via an overland conveyor to Macquarie Generation's Bayswater Power Station. Up to 7 Million tonnes per annum of export coal will continue to be railed to the Port of Newcastle from the Antiene Rail Spur as approved in the Antiene Rail Spur Development Consent (DA 106-04-00). No change to rail transport is therefore required for the Project.	Drayton Coal has decommissioned the conveyor and all coal is transported off site via the rail loop and spur.
Waste Drayton has an existing waste management system which incorporates waste reuse and recycling and addresses all issues relevant to the management of waste.	Waste management on site is reported in the AEMRs for the audit period. During the site visit, the auditors observed that waste segregation practices do not appear to be followed consistently, for example, oily rags were observed in general waste bins.
The current waste management system and sewage treatment plant will continue to be utilised for the Project. There will be no significant change or additional demand for these waste services as the respective number of employees of each shift will not significantly increase.	Impacts as predicted.
Socio-economics The Project will result in the following approximate economic benefits: - The continued employment of 329 employees whilst potentially providing an additional 59 full time positions. - $374 million in wages and salaries with a predicted flow-on effect to the regional economy of $354 million. - $2,327 million in sales revenue. - $135 million in State Government royalties. - $110 million in Commonwealth Government taxes. - $2.3 million in contributions to the Australian Coal Association Research Program.	Impacts as predicted. Drayton employ approximately 400 staff and contributions to community projects are described in the AEMRs for the audit period.
A Voluntary Planning Agreement has been agreed in principle between Drayton Mine and Muswellbrook Shire Council.	The agreement was reached prior to the audit period.
2000 EIS	
Air quality Air quality impacts associated with construction of the Bayswater Rail Loading Facility and operation of the Antiene Joint User Rail Facility are predicted to be low. Dust mitigation measures are proposed for both the construction and operation stages of the development.	No exceedances of air quality criteria occurred during the audit period (refer to Condition 21 of Project Approval 06_0202). Mitigation measures were observed to be employed appropriately as required.
Noise and vibration Noise assessment indicates that there will not be a significant noise impact as a result of the proposed development provided that appropriate noise abatement measures are adopted.	There were no exceedances of noise criteria; however there are some concerns about how noise levels are monitored. The monthly noise monitoring does not appear to be undertaken in accordance with the approved methodology. Noise levels are

Assessment Prediction	Audit Findings
	arbitrarily separated into contributions from different sources, do not appear to be specific to the operations undertaken onsite at the time of measurements, and is not calibrated against measurements taken. Refer to **Section 3.5**.
Water quality During construction of the Bayswater Rail Loading Facility there is potential for water quality impacts to occur. Comprehensive soil and water management controls will be adopted to minimise these impacts.	This has not occurred during the audit period.
Flora and fauna The area to be disturbed by construction of the Bayswater Rail Loading Facility is vegetated with grassland and approximately 5.75 hectares of remnant woodland. The flora and fauna surveys conducted for this project indicate that there will be no significant adverse impacts associated with the proposed development. Proposed habitat compensation will lead to an increase in the total area of woodland, once established.	The site visit conducted by the auditors confirmed that the Drayton wildlife Area is fenced, including with signage delineating it as an Environmental Offset Area. This signage (dated September 2015) also indicated recent rabbit and wild dog control methods had been undertaken in the area.
Visual The proposed Bayswater Rail Loading Facility is located in an area with high surrounding topography. The topographic relief ensures that the facility is not visible from any residence. Visual impacts from train headlights on a public road adjacent to the proposal development will be mitigated through the provision of visual screens and vegetation corridors. There are no significant visual impacts associated with the existing rail facilities.	The 2014 AEMR reports that tree planting occurred along Thomas Mitchell Drive in 2007 and in 2012. Trees were planted in areas that are visible to both the New England Highway and Thomas Mitchell Drive to provide future relief from linear rehabilitated contours. Mobile lighting is managed to prevent visual impacts. No lighting related complaints were received during the audit period.
Socio-economic The construction phase of the development will provide economic benefits to the region as a result of capital expenditure of approximately $40 million. Operation of the facility will ensure that Bayswater and Drayton mines are able to transport coal to market to support continued employment and services in the area.	Impacts as predicted.
Cumulative impacts Cumulative impact assessment of the proposal in conjunction with existing and approved activities within the area has been undertaken in accordance with the recommendation of the Upper Hunter Cumulative Impact Study and Strategy (DUAP 1997). This assessment indicates that there will be no significant adverse cumulative impacts as a result of the development.	No exceedances of the cumulative noise criteria have occurred during the audit period. The number of complaints received by Drayton Coal has decreased throughout the audit period, with 39 in 2012, 24 in 2013, and 14 in 2014.

5.0 Review the adequacy of Environmental Management Plans

This section addresses Condition 6(d), Schedule 5 of Project Approval 06_0202 (as modified), which requires this IEA to "review the adequacy of any strategy/plan/program required under this approval".

5.1 *Mining Operations Plan (1 July 2015 – 30 June 2020)* (Anglo Coal, 2015)

During the audit period the Drayton Coal Mine operated under the previous *Mining Operation Plan Drayton Mine – 2012-2017* (Anglo Coal, 2012) which was approved in August 2012 and amended in April 2013 and October 2014. It is noted that DRE gave approval for a new MOP on 30 October 2015. As the previous MOP was applicable to operations during the audit period, the assessment of compliance has been undertaken against the previous MOP (refer to **Section 3.4**). However, since the new MOP will be applicable to the mine operations moving forward, for the purposes of this section it is appropriate to review the adequacy of the new MOP. Therefore this section will focus on the *Mining Operations Plan (1 July 2015 – 30 June 2020)* (Anglo Coal, 2015).

Condition 2 (4) of CL 229, CL 395, and ML 1531 requires the MOP to identify:

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. progressive rehabilitation schedules;

f. areas of particular environmental sensitivity;

g. water management systems (including erosion and sediment controls);

h. proposed resource recovery; and

i. 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.

The content of the *Mining Operations Plan (1 July 2015 – 30 June 2020)* was audited against each specific requirement in Condition 2, CL 229, CL 395 and ML 1531 by the Specialist Rehabilitation and Closure Auditor. Compliance was found against all of these criteria.

Previously, the Final Void Management Plan and Mine Closure Plan have been separate documents. Given that mine closure is planned to be undertaken during this MOP period, the new MOP has incorporated the detail from the Mine Closure Plan and the Final Void Plan.

5.2 *Noise Management Plan* (AngloAmerican, May 2014)

The preparation of a Noise Management Plan is required by Condition 8, Schedule 3 of Project Approval 06_0202 (as modified). The *Noise Management Plan* (AngloAmerican, May 2014) describes the measures to be implemented by Anglo Coal to mitigate noise impacts and detail noise monitoring requirements associated with operations.

While the site has demonstrated engagement with neighbours and a thorough and effective response to issues that have arisen during the audit period, not all of the monitoring undertaken at the site was found to be in compliance with the *Noise Management Plan* (AngloAmerican, May 2014). Specifically, the noise levels reported in the site's monthly noise reports are arbitrarily separated into different contributions from different sources, and this methodology is indicative only, while also being prone to measurement bias or error. Noise modelling also does not appear to be specific to the operations undertaken onsite at the time of measurements, and is not calibrated against measurements taken, reducing the validity of the resulting levels arrived at. Furthermore, the self-reported noise measurements undertaken by site personnel do not appear to be following an approved methodology for allocating noise contribution by source. Overall noise levels only should be reported.

During the audit, each of the conditions outlined in the Noise Management Plan were found to be compliant, non-compliant or not triggered. An extensive list of each condition and audit findings can be found in **Appendix H**.

The content of the Noise Management Plan was also audited against each of the specific requirements in Condition 8, Schedule 3 of Project Approval 06_0202 (as modified). Compliance was found against most of these criteria, apart from Condition 8(d), as no annual validation of the noise model appears to be undertaken, within the AEMRs or otherwise (refer **Appendix D**).

A review of the *Noise Management Plan* (AngloAmerican, May 2014) was also conducted against the recommendations made in relation to previous versions of the Noise Management Plan at Drayton during the 2012 IEA. Not all of these recommendations were found to have been considered or actioned as part of the new Plan (refer **Section 3.19**). The following recommendations are made by the Specialist Acoustics Auditor in relation to the Noise Management Plan at Drayton:

- The methodology of monthly noise reporting should be clarified; and
- Future AEMRs should:
    - Report the overall noise measurements undertaken by Anglo Coal staff rather than breaking these down based on arbitrarily defined noise contribution sources; and
    - Reference an annual validation of the noise model.

5.3 *Blasting Management and Monitoring Plan* (AngloAmerican, March 2013)

The preparation of a Blasting Management Plan is required by Condition 20, Schedule 3 of Project Approval 06_0202 (as modified). The *Blasting Management and Monitoring Plan* (AngloAmerican, March 2013) details the blast management and monitoring requirements at Drayton. It also provides mechanisms for assessing blast monitoring results against the relevant blast impact assessment criteria. The plan was updated in response to the recent modification which came into effect in 2012, as per a submission extension granted by the Department of Planning.

More specifically, the Blasting Management and Monitoring Plan describes:

- The statutory requirements with regard to blasting criteria;
- Responsibilities for blast management;
- Monitoring requirements;
- Blast mitigation measures;
- Remedial action measures;
- Protection measures;
- Integration with other mining operations;
- Public notification process'
- Road closure protocols;
- Enquiries/complaints handling;
- Blasting protocols;
- Residential inspection procedure; and
- Reporting requirements.

Despite the fact that Drayton mine is nearing its end of life, active blasting still occurs on a regular basis at the site. Anglo Coal staff also appear to have a good relationship with neighbouring landowners/tenants sites and Muswellbrook Shire Council with regards to cumulative blasting impacts and specifically blasting events which may impact on the neighbouring Mt Arthur Coal. Overall, the site appears to be complying with its blasting limit criteria, and the amount of complaints the site receives in relation to blasting are not excessive or otherwise indicative of poor blasting management.

It is noted that two private property inspections have recently been carried out after the site received requests from landowners. The follow up inspections, consultation with landowners and the regulators appears to have been done according to the requirements of PA06_0202.

It is also noted that, on 2 August 2013 at 9:57 pm, a shot was fired in the South Pit, which is outside the designated blasting hours at Drayton. This blast was fired outside approved blasting times due to an error in loading resulting in a non-inhibited product being loaded into reactive ground. Permission to fire outside approved blasting times was sought from the OEH and DP&E. No complaints were received as a result of the blast. A full incident investigation was subsequently undertaken and ten documented corrective actions were completed in consultation with the EPA.

The site has complex geological issues which have led to a complicated regime of blast planning and execution, and those tasked with managing blasting at the site seemed experienced and knowledgeable on all relevant matters when interviewed by the auditors. However it is noted that if those staff were ever unable to perform their duties due to illness or any other reason, little has been done in the way of succession planning to ensure these tasks can be carried out.

Site interviews conducted by the auditors also confirmed that an informal, internal investigation is undertaken whenever ground vibration levels reach a designated level (which is significantly lower than the site's compliance criteria). However no records are maintained from these investigations. Furthermore, where blasting is cancelled or rescheduled due to meteorological, production, or other reasons, no records are maintained as to why this was undertaken.

During the audit, each of the conditions outlined in the Blasting Management and Monitoring Plan were found to be compliant, non-compliant or not triggered. An extensive list of each condition and audit findings can be found in **Appendix I**. The content of the Blasting Management and Monitoring Program was also audited against each of the specific requirements in Condition 20, Schedule 3 of Project Approval 06_0202 (as modified) (refer **Appendix D**). After the modification received in 2012, the Project Approval required a new version of the Plan to be provided to the Director-General by 31 October 2012. The auditors sighted correspondence with the Department of Planning indicating that an extension of time was granted for the update of this plan, and it was subsequently submitted according to this timeframe.

A review of the Blasting Management and Monitoring Plan was also conducted against the recommendations made during the 2012 IEA, which were found to have been closed out (refer **Section 3.6**).

The following recommendations are made by the auditors in relation to the Blasting Management and Monitoring Plan at Drayton:

- As some of the responsibilities outlined in the Blasting Management and Monitoring Plan are actually being carried out by different personnel than those nominated in the Plan, it is recommended that the Plan be updated to reflect this; and
- Improved record keeping of blast rescheduling, blast results and internal blast-level investigations.

5.4 *Spontaneous Combustion Management Plan* (AngloAmerican, January 2012)

The preparation of a Spontaneous Combustion Management Plan is required by Condition 24, Schedule 3 of Project Approval 06_0202 (as modified). The *Spontaneous Combustion Management Plan* (AngloAmerican, January 2012) fulfils these requirements, and describes:

- The management techniques employed by Anglo Coal Drayton Mine to control, monitor and prevent spontaneous combustion;
- The physical characteristics of spontaneous combustion;
- Key responsibilities and accountabilities of selected positions within the Mine Planning Area, Mine Operations Area and the Safety and Sustainable Development Department; and
- Drayton's requirements with respect to planning issues, inspections and reporting as specified in DEC Licences and mining operations approvals and Project Approval PA 06_0202.

The site has complex issues relating to spontaneous combustion, and in recent years this has particularly impacted rehabilitation areas underlain with self-heating soils. Overall the site appears to be managing its spontaneous combustion issues well. It is understood that spontaneous combustion is more of an in-pit issue than a stockpile management issue for the site, and it is generally after six to eight weeks of coal storage that stockpiled materials begin to show signs of spontaneous combustion if they are so affected.

Interviews with the CHP Superintendent confirmed that the Coal Quality System database is used to record information about each coal stockpile at the CHP. During the audit, each of the conditions outlined in the Spontaneous Combustion Management Plan were found to be compliant, non-compliant or not triggered. An extensive list of each condition and audit findings can be found in **Appendix J**. The content of the Spontaneous Combustion Management Plan was also audited against each of the specific requirements in Condition 24, Schedule 3 of Project Approval 06_0202 (as modified). Compliance was found against all of these criteria (refer **Appendix D**).

A review of the *Spontaneous Combustion Management Plan* (AngloAmerican, January 2012) was also conducted against the recommendations made during the 2012 IEA. Given that the most recent version of the Spontaneous Combustion Management Plan is dated January 2012, it can be concluded that the majority of these recommendations were not considered or actioned (refer (refer **Section 3.7**).

The following recommendation is made by the auditors in relation to the Spontaneous Combustion Management Plan at Drayton:

- The Plan should be updated to reference the recent issues the site has had with rehabilitation and the relevant works order from the regulators.

5.5 *Air Quality Management and Monitoring Plan* (AngloAmerican, November 2013)

The preparation of an Air Quality and Greenhouse Gas Management Plan is required by Condition 25, Schedule 3 of Project Approval 06_0202 (as modified). The *Air Quality Management and Monitoring Plan* (AngloAmerican, November 2013) describes:

- The Drayton air quality management system
- Air quality objectives and targets
- Legal and other requirements with regard to air quality
- Controls and mitigation measures
- Air quality monitoring program
- Community and stakeholder engagement
- Investigating complaints and exceedances
- Reporting requirements of air quality
- Managing the cumulative air quality impacts of mining.

The meteorological forecasting system used by the site was observed to be used appropriately during the site visit conducted by the auditors. In addition, the auditors sighted evidence of further mitigation measures being employed where meteorological forecasting so recommends. During the site visit, three of the four ESamplers were also found to be not working, due to recent storm damage. However, this was rectified before the close of the audit.

During the audit, each of the conditions outlined in the Air Quality Management and Monitoring Plan were found to be compliant, non-compliant or not triggered. An extensive list of each condition and audit findings can be found in **Appendix K**. The content of the Air Quality Management and Monitoring Plan was also audited against each of the specific requirements in Condition 25, Schedule 3 of Project Approval 06_0202 (as modified). Compliance was found against all of these criteria (refer **Appendix D**).

A review of the *Air Quality Management and Monitoring Plan* (AngloAmerican, November 2013) was also conducted against the recommendations made during the 2012 IEA. Not all of these recommendations were found to have been considered or actioned since the last audit (refer **Section 3.19**). The following recommendations are made by the Specialist Air Quality Auditor in relation to the Air Quality Management Plan at Drayton:

- It is recommended that the Air Quality Management Plan be updated to reflect the current practice of ESampler trigger levels being used on a one hour average basis rather than a half hour; and
- The Air Quality Management Plan should be updated with the calibrated Trigger Action Response Plan.

5.6 *Water Management Plan* (Anglo Coal, November 2009)

The preparation of a Water Management Plan is required by Condition 28, Schedule 3 of Project Approval 06_0202 (as modified). It is also noted that Condition 28(c) requires the preparation of:

- An Erosion and Sediment Control Plan;
- A Surface Water Monitoring Program;
- A Groundwater Monitoring Program; and
- A Surface and Ground Water Response Plan.

Conditions 30-33 outline the requirements for these additional plans and programs, while Condition 29 requires the preparation of a site water balance. The *Water Management Plan* (Anglo Coal, November 2009) fulfils the requirements to prepare these plans. It provides a framework for water management at Drayton. As the most recent version of the Water Management Plan is dated November 2009, the auditors can make a general comment that the current Plan does not necessarily reflect how Anglo Coal's water management practices have since evolved and are currently being undertaken.

On 10 January 2014 a significant diesel spill was identified on the site, constituting an environmental harm incident as per the definition afforded in the Protection of the Environment Operations Act 1997. However, the authorities were not notified of this on the same day, and the evidence indicates they were not advised until 13 January 2014. The site complied with the resulting regulator investigations and remediation requirements arising out of this incident.

It is noted that a storm event occurred the night before the auditors first attended site, and no comprehensive check of rehabilitation areas or surface water structures was conducted by Anglo Coal staff. It is recommended that the system of post rainfall inspections be reviewed to include rehabilitation areas, sediment and erosion control measures, and the potential for offsite discharge.

As reported in Section 7.2.2 of the 2012 and 2013 AMERs, and Section 7.3.2 of the 2014 AEMR, the most recent surveillance report for the Access Road Dam was undertaken in 2010, and the next one will be due in 2015. A copy of an annual surveillance report for the Liddell Ash Dam Levee (which is also a prescribed dam under the *Dams Safety Act 1978*) was also provided to the auditors.

The AEMRs do not appear to be including all of the relevant information about water monitoring.

There is an electrical conductivity result of 22,100 from 21 September 2015, but not indication that this was followed through as it appears to indicate non-compliance with the site's criteria. However, as this commitment itself is not entirely clear when read in conjunction with the original Groundwater Impact Assessment prepared in 2006, it is recommended that the site confirm what this requirement relates to.

During the audit, each of the conditions outlined in the Water Management Plan were found to be compliant, non-compliant or not triggered. An extensive list of each condition and audit findings can be found in **Appendix L**.

The content of the Water Management Plan was also audited against each of the specific requirements in Conditions 28-33, Schedule 3 of Project Approval 06_0202 (as modified). Compliance was found against most of these criteria, apart from the requirements of Condition 30, which related to erosion and sediment control (refer **Appendix D**). Specifically, the 2012 IEA confirmed that the *Water Management Plan* (Anglo Coal, November 2009) did not comply with the requirements to be consistent with the *Managing Urban Stormwater: Soils and Construction Manual* (Landcom 2004, or its latest version). Given that the Water Management Plan has not been updated in the interim, it can be concluded that the Plan is still non-compliant with this requirement.

A review of the *Water Management Plan* (Anglo Coal, November 2009) was also conducted against the recommendations made during the 2012 IEA. However, given that the current date of the Plan is November 2009, it cannot be concluded that any of these recommendations have been considered by the site (refer **Section 3.19**).

The following recommendations are made by the auditors in relation to the Water Management Plan at Drayton:

- Incident response procedures within the WMP are to be updated to refer to the immediate reporting requirements under the *Protection of the Environment Operations Act 1997*, and staff are to be made aware of these requirements;
- It is recommended that the system of post rainfall inspections be reviewed to include rehabilitation areas, sediment and erosion control measures, and the potential for offsite discharge;

- The current water level gauge used at the Access Road Dam be reviewed to confirm whether the current reading times (once per half hour) are adequate for the site to be able to sufficiently comprehend when a sudden overflow event has occurred;
- There is an electrical conductivity result of 22,100 from 21 September 2015, but not indication that this was followed through as it appears to indicate non-compliance with the site's criteria. However, as this commitment itself is not entirely clear when read in conjunction with the original Groundwater Impact Assessment prepared in 2006, it is recommended that the site confirm what this requirement relates to;
- Erosion and sediment control be reviewed to confirm compliance with the *Managing Urban Stormwater: Soils and Construction Manual* (Landcom 2004, or its latest version);
- The Water Management Plan should be updated so that it refers to the current network of surface and groundwater monitoring locations; and
- It is also recommended that future AEMRs include:
    - The volume (if any) of water supplied to Mt Arthur during the relevant reporting period;
    - A review against the groundwater model predictions and water usage predictions contained in the environmental assessment; and
    - A comparison of standing water levels to the steady state calibration results as detailed in the environmental assessment.

5.7 *Offset Strategy* (AngloAmerican, 23 September 2015)

The preparation of an Offset Strategy is required by Condition 35, Schedule 3 of Project Approval 06_0202 (as modified). The *Offset Strategy* (AngloAmerican, 23 September 2015). It is a strategic document explaining the rationale for the proposed offsets and where they will be located. However it is noted that a new draft Mining Operations Plan has been prepared and is nearing finalisation with DRE. This Mining Operations Plan will run through until 2020, and will likely supersede the content of the *Offset Strategy* (AngloAmerican, 23 September 2015).

During the audit, each of the conditions outlined in the *Offset Strategy* (AngloAmerican, 23 September 2015) were found to be compliant. An extensive list of each condition and audit findings can be found in **Appendix M**.

The content of the Offset Strategy was also audited against each of the specific requirements in Condition 35, Schedule 3 of Project Approval 06_0202 (as modified). Compliance was found against most of these criteria (refer **Appendix D**), apart from the requirements to ensure adequate resourcing and demonstrate how the proposed offsets are in accordance with the principles in Appendix 9. These two items were found to be outstanding in the 2012 IEA, and there is no indication that these have since been updated in the latest version of the Offset Strategy.

No recommendations are made by the Specialist Rehabilitation and Closure Auditor in relation to the Offset Strategy at Drayton.

5.8 *Rehabilitation and Offset Management Plan* (AngloAmerican, October 2013)

The preparation of a Rehabilitation and Offset Management Plan is required by Condition 39, Schedule 3 of Project Approval 06_0202 (as modified). The *Rehabilitation and Offset Management Plan* (AngloAmerican, October, 2013) fulfils these requirements.

The site visit conducted by the auditors confirmed that the site has experienced substantial rates of plant loss after initial rehabilitation plantings. Also, while flora, fauna and spontaneous combustion monitoring appear to take place at the site, there is no summary of flora and fauna monitoring made in the AEMRs to demonstrate how the site is tracking against its rehabilitation requirements. Records for weed management works are maintained in a GIS system.

It is also noted that information on germination and seed germination and viability is not provided by the supplier of seeds to the site, and this information is not otherwise recorded by the site, making it difficult to determine survival rates. A further general comment on the Rehabilitation and Offset Management Plan is the site lack's coherence with relation to the management of Aboriginal cultural heritage.

During the audit, each of the conditions outlined in the Rehabilitation and Offset Management Plan were found to be compliant, non-compliant or not triggered. An extensive list of each condition and audit findings can be found in **Appendix N**. The content of the Rehabilitation and Offset Management Plan was also audited against each of the specific requirements in Condition 39, Schedule 3 of Project Approval 06_0202 (as modified). Compliance was found against most of these criteria (refer **Appendix D**). Condition 39A required the Rehabilitation and Offset Management Plan to be reviewed and updated within six months of the most recent modification approval. Modification approval (06_0202 MOD 2) was granted on 17 February 2012. The auditors sighted email correspondence indicating that this was subsequently updated in consultation with the regulators as required.

The following recommendations are made by the Specialist Rehabilitation and Closure Auditor in relation to the Rehabilitation and Offset Management Plan at Drayton. It is recommended that future AEMRs include the following:

- Clarification of when rehabilitation works have been undertaken;
- More details on rehabilitation activities in general, including:
    - Topsoil application; and
    - Annual flora, fauna and spontaneous combustion monitoring, including tracking of any trends identified and survival rates of rehabilitation.

5.9 *Final Void Management Plan* (Anglo Coal, November 2008)

The preparation of a Final Void Management Plan is required by Condition 40, Schedule 3 of Project Approval 06_0202 (as modified). A general comment can be made about the fact that the *Final Void Management Plan* (Anglo Coal, November 2008) is an aged document which has not been updated as changing site conditions would require. However the drafting of the latest Mining Operations Plan 2015-2020 does evidence commitment by the site to review and update these requirements in consultation with the regulators.

During the audit, each of the conditions outlined in the *Final Void Management Plan* (Anglo Coal, November 2008) were found to either be compliant, non-compliant or not triggered by the Specialist Rehabilitation and Closure Auditor. An extensive list of each condition and audit findings can be found in **Appendix O**. The content of the Final Void Management Plan was also audited against each of the specific requirements in Condition 40, Schedule 3 of Project Approval 06_0202 (as modified). The 2012 IEA found that the Final Void Management Plan did not fulfil these requirements. Going forward, the Final Void Management Plan will be replaced by the Mining Operations Plan 2015-2020 which will fulfil these requirements (refer **Appendix D**).

5.10 *Mine Closure Plan* (Anglo Coal, January 2009)

The preparation of a Mine Closure Plan is required by Condition 41, Schedule 3 of Project Approval 06_0202 (as modified). The 2012 IEA found that the *Mine Closure Plan* (Anglo Coal, January 2009) did not fulfil most of the requirements of Condition 41. The Mine Closure Plan has not been updated since this time. However, going forward, the Final Void Management Plan will be replaced by the Mining Operations Plan 2015-2020 which will fulfil these requirements (refer **Appendix D**).

During the audit, each of the conditions outlined in the *Mine Closure Plan* (Anglo Coal, January 2009) were found to either be compliant, non-compliant or not triggered by the Specialist Rehabilitation and Closure Auditor. An extensive list of each condition and audit findings can be found in **Appendix P**.

5.11 *Aboriginal Cultural Heritage Management Plan* (Anglo Coal, October 2008)

The preparation of an Aboriginal Heritage Plan is required by Condition 43, Schedule 3 of Project Approval 06_0202 (as modified). The content of the *Aboriginal Cultural Heritage Management Plan* (Anglo Coal, October 2008) was also audited against each of the specific requirements in Condition 435, Schedule 3 of Project Approval 06_0202 (as modified). Compliance was found against each of these criteria (refer **Appendix D**).

The site's Permit to Disturb Land Form does contain a requirement to consider the possible presence of Aboriginal heritage. However, a general observation is made by the audit team that the environmental staff employed at the site were not aware of the current status of Aboriginal cultural heritage items at the site, both in terms of those that remain in situ and those which have been previously subject to salvage. There is furthermore

no information in the 2012, 2013 and 2014 AEMRs about Aboriginal heritage management, apart from references to previous salvage activities carried out at the site during 2010. It is therefore assumed that that some requirement of the *Aboriginal Cultural Heritage Management Plan* (Anglo Coal, October 2008) will have not been complied with during the audit period. Specifically, the site was not able to provide evidence of any ongoing management/inspections of in situ Aboriginal heritage items which may remain fenced off. It is also noted that the overall site induction information does not contain information about cultural heritage (Aboriginal or otherwise).

While no consultation with Aboriginal community stakeholders was reported during the AEMRs for the audit period, this may not have strictly been required, as no new Aboriginal cultural heritage deposits, skeletal remains, or salvage/disturbance activities took place during the audit period.

During the audit, each of the conditions outlined in the Aboriginal Cultural Heritage Management Plan were found to either be compliant, non-compliant or not triggered. An extensive list of each condition and audit findings can be found in **Appendix Q**. No recommendations were made against the *Aboriginal Cultural Heritage Management Plan* (Anglo Coal, October 2008) in the 2010 IEA.

The following recommendations are made by the auditors in relation to the *Aboriginal Cultural Heritage Management Plan* (Anglo Coal, October 2008):

- The *Aboriginal Cultural Heritage Management Plan* (Anglo Coal, October 2008) should be updated to refer to the current status of Aboriginal cultural heritage items that have been preserved offsite or salvaged; and
- It is recommended that the site implement an inspection regime to confirm the condition of Aboriginal cultural heritage items remaining in-situ.

Furthermore it is recommended that future AEMRs:

- Clarify whether or not Aboriginal community stakeholder consultation was required during the reporting period, and if not required, specify why; and
- Make some comment on the status of any in situ or salvaged Aboriginal cultural heritage items.

5.12 *Greenhouse and Energy Efficiency Plan* (Anglo Coal, May 2008)

The preparation of a Greenhouse and Energy Efficiency Plan is required by Condition 46, Schedule 3 of Project Approval 06_0202 (as modified). Furthermore, it is noted that Condition 25, Schedule 3 requires the preparation of an Air Quality and Greenhouse Gas Management Plan. The *Greenhouse and Energy Efficiency Plan* (AngloCoal, May 2008) provides the framework for the management of greenhouse and energy efficiency measures to be conducted at Drayton. As the most recent version of the Greenhouse and Energy Efficiency Plan is dated May 2008, the auditors can make a general comment that the current Plan does not necessarily reflect how Anglo Coal's energy management practices have since evolved and are currently being undertaken.

During the audit, each of the conditions outlined in the Greenhouse and Energy Efficiency Plan were found to either be compliant, non-compliant or not triggered. An extensive list of each condition and audit findings can be found in **Appendix R**. A review of the *Greenhouse and Energy Efficiency Plan* (AngloCoal, May 2008) was also conducted against the recommendations made in during the 2012 IEA. Given that the most recent version of the Greenhouse and Energy Efficiency Plan is dated May 2008, it can be concluded that these recommendations were not considered (refer **Section 3.19**).

5.13 *Flora and Fauna Management Plan* (AngloAmerican, July 2013)

The preparation of a Flora and Fauna Management Plan is required by Condition 5, Appendix 3 of Project Approval 06_0202 (as modified). The site currently operates under the *Flora and Fauna Management Plan* (AngloAmerican, July 2013) which supports and enhances the *Rehabilitation and Offset Management Plan* (AngloAmerican, October, 2013).

In terms of flora and fauna management, the auditors noted that the site is generally undertaking native fauna monitoring and feral animal control as required. During the audit, each of the conditions outlined in the Flora and Fauna Management Plan were found to either be compliant, non-compliant or not triggered. An extensive list of each condition and audit findings can be found in **Appendix S**.

In relation to improving flora and fauna management at the Site, the Specialist Rehabilitation and Closure Auditor recommended that the Site undertake regular inspections of fences.

5.14 Environmental Management Strategy (Anglo Coal, May 2010)

The preparation of an Environmental Management Strategy is required by Condition 1, Schedule 5 of Project Approval 06_0202 (as modified). More specifically, the *Environmental Management Strategy* (Anglo Coal, May 2010) describes the strategic framework for environmental management at Drayton and includes:

- Statutory requirements applicable to Drayton mining operations and the Antiene Rail Spur;
- How environmental performance is monitored and managed;
- What procedures exist to manage environmental performance;
- Community and regulatory consultation processes;
- Complaint handling;
- Resolving disputes;
- Handling non-compliances;
- Cumulative impacts;
- Emergency Response; and
- Roles, responsibilities, authorities and accountabilities of key personnel.

As the most recent version of the Environmental Management Strategy is dated May 2010, the auditors can make a general comment that the current Plan does not necessarily reflect how Anglo Coal's Environmental Management Strategy may have since evolved and are currently being undertaken.

The content of the *Environmental Management Strategy* (Anglo Coal, May 2010) was also audited against each specific requirement in Condition 1, Schedule 5 of Project Approval 06_0202 (as modified). Compliance was found against most of these criteria (refer **Appendix D**). With regards to Condition 1(d), the Environmental Management Strategy was found to be non-compliant due to the age of the document, and the fact that it does not reference current regulatory requirements for emerge and non-compliance responses.

It is significant to note that prior to, and during the site audit, staff were not initially aware of whether the site operated under an Environmental Management Strategy or not, but this was clarified on the second day of the site visit. A copy of the *Environmental Management Strategy* (Anglo Coal, May 2010) was not available on the Drayton website at that time.

The Environmental Management Strategy also referenced community newsletters, but there was no evidence that these had been prepared during the audit period.

Four recommendations were made by the auditors in relation to the Environmental Management Strategy:

- Incident response procedures are to be updated to refer to the immediate reporting requirements under the *Protection of the Environment Operations Act 1997*, and staff are to be made aware of these requirements;
- The roles and responsibilities outlined in the Appendices to the Environmental Management Strategy should be reviewed for currency; and
- The site should continue to manage its website to ensure that, in future, all current versions of management plans, AEMRs, previous audit reports and project approvals are available online (it is noted that the 2012 AEMR, several management plans, audit reports, and the DA 106-04-00 was not available at the time of conducting the audit.

5.15 Environmental Monitoring Program (AngloAmerican, July 2013)

The preparation of an Environmental Management Program is required by Condition 2, Schedule 5 of Project Approval 06_0202 (as modified). The site currently operates under *Environmental Monitoring Program* (AngloAmerican, July 2013) which provides the framework for environmental monitoring to be conducted at Drayton.

Given the fact that some of the site's management plans are out of date, there are some inconsistencies between some of the monitoring plans when compared with what is presented in the *Environmental Monitoring Program* (AngloAmerican, July 2013).

It is also noted that the previous 212 IEA could not confirm whether the site's meteorological monitoring station complied with the Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (EPA, 2005). During the current audit, the site was not able to provide relevant calibration records to confirm this.

An automatic weather station has been operational at Drayton since 1982. Temperature, relative humidity, wind speed, wind direction and rainfall are recorded on a five minute basis, with summaries being obtained hourly and daily. This station is operated in accordance with the requirements of the Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (EPA, 2005).

The 2012 IEA also recommended that the Environmental Monitoring Program be updated to include a quality assurance/quality control plan which is suitable for all monitoring undertaken on site. However the Environmental Monitoring Program does not appear to have been updated accordingly, and indeed a general comment can be made by the auditors regarding a lack of coherent quality assurance with regards to monitoring and the keeping of associated records.

During the audit, each of the conditions outlined in the *Environmental Monitoring Program* (AngloAmerican, July 2013) were found to either be compliant, non-compliant or not triggered. An extensive list of each condition and audit findings can be found in **Appendix U**. The content of the *Environmental Monitoring Program* (AngloAmerican, July 2013) was also audited against each specific requirement in Condition 2, Schedule 5 of Project Approval 06_0202 (as modified). Compliance was found against these criteria (refer **Appendix D**).

Two recommendations were made by the auditors in relation to the Environmental Monitoring Program as follows:

- The Environmental Monitoring Program should be updated so that refers to the current network of surface and groundwater monitoring locations; and
- The site should reconcile the Environmental Monitoring Program with updates to management plans as and when those updates occur.

6.0 Recommendations

This section addresses Condition 5(e), Schedule 5 of Project Approval 06_0202 (as modified) which requires this IEA to:

> *recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval.*

This IEA audited over the Project Approval, EPL 1323, CL 229, CL 395 and ML 1531, the Environmental Assessments and the relevant management plans, and identified a total of eighty-seven (87) non-compliances out of an approximate 1,800 conditions, including eleven (11) which are categorised as non-compliant and seventy-six (76) which are categorised as administrative non-compliances.

Table 29 presents key recommendations stemming from this IEA in relation to all non-compliances with approvals and management plans.

Table 29 Consolidated Audit Recommendations

Reference	Recommendation
***Noise Management Plan* (Anglo American, May 2014)**	
- The methodology of monthly noise reporting should be clarified; and - Future AEMRs should: • Report the overall noise measurements undertaken by Anglo staff rather than breaking these down based on arbitrarily defined noise contribution sources; and • Reference an annual validation of the noise model.	
***Blasting Management and Monitoring Plan* (AngloAmerican, March 2013)**	
- As some of the responsibilities outlined in the Blasting Management and Monitoring Plan are actually being carried out by different personnel than those nominated in the Plan, it is recommended that the Plan be updated to reflect this; and - Improved record keeping of blast rescheduling, blast results and internal blast-level investigations.	
***Spontaneous Combustion Management Plan* (AngloAmerican, January 2012)**	
- The Plan should be updated to reference the recent issues the site has had with rehabilitation and the relevant works order from the regulators.	
***Air Quality Management and Monitoring Plan* (AngloAmerican, November 2013)**	
- It is recommended that the Air Quality Management Plan be updated to reflect the current practice of ESampler trigger levels being used on a one hour average basis rather than a half hour; and - The Air Quality Management Plan should be updated with the calibrated Trigger Action Response Plan.	
***Water Management Plan* (Anglo Coal, November 2009)**	
- Incident response procedures within the WMP are to be updated to refer to the immediate reporting requirements under the *Protection of the Environment Operations Act 1997*, and staff are to be made aware of these requirements; - It is recommended that the system of post rainfall inspections be reviewed to include rehabilitation areas, sediment and erosion control measures, and the potential for offsite discharge; - The current water level gauge used at the Access Road Dam be reviewed to confirm whether the current reading times (once per half hour) are adequate for the site to be able to sufficiently comprehend when a sudden overflow event has occurred; - There is an electrical conductivity result of 22,100 from 21 September 2015, but not indication that this was followed through as it appears to indicate non-compliance with the site's criteria. However, as this commitment itself is not entirely clear when read in conjunction with the original Groundwater Impact Assessment prepared in 2006, it is recommended that the site confirm what this requirement relates to; - Erosion and sediment control be reviewed to confirm compliance with the *Managing Urban Stormwater: Soils and Construction Manual* (Landcom 2004, or its latest version); and - The Water Management Plan should be updated so that it refers to the current network of surface and groundwater monitoring locations.	

Reference	Recommendation
	It is also recommended that future AEMRs include: - The volume (if any) of water supplied to Mt Arthur during the relevant reporting period; - A review against the groundwater model predictions and water usage predictions contained in the environmental assessment; and - A comparison of standing water levels to the steady state calibration results as detailed in the environmental assessment.
	***Rehabilitation and Offset Management Plan* (AngloAmerican, October, 2013)**
	The following recommendations were made by the auditors in relation to the Rehabilitation and Offset Management Plan at Drayton. It is recommended that future AEMRs include the following: - Clarification of when rehabilitation works have been undertaken; - More details on rehabilitation activities in general, including: • Topsoil application; and • Annual flora, fauna and spontaneous combustion monitoring, including tracking of any trends identified and survival rates of rehabilitation.
	***Aboriginal Cultural Heritage Management Plan* (Anglo Coal, October 2008)**
	- The *Aboriginal Cultural Heritage Management Plan* (Anglo Coal, October 2008) should be updated to refer to the current status of Aboriginal cultural heritage items that have been preserved offsite or salvaged; and - It is recommended that the site implement an inspection regime to confirm the condition of Aboriginal cultural heritage items remaining in-situ.
	Furthermore it is recommended that future AEMRs: - Clarify whether or not Aboriginal community stakeholder consultation was required during the reporting period, and if not required, specify why; and - Make some comment on the status of any in situ or salvaged Aboriginal cultural heritage items.
	***Environmental Management Strategy* (Anglo Coal, May 2010)**
	- Incident response procedures are to be updated to refer to the immediate reporting requirements under the *Protection of the Environment Operations Act 1997*, and staff are to be made aware of these requirements; - The roles and responsibilities outlined in the Appendices to the Environmental Management Strategy should be reviewed for currency; and - The site should continue to manage its website to ensure that, in future, all current versions of management plans, AEMRs, previous audit reports and project approvals are available online (it is noted that the 2012 AEMR, several management plans, audit reports, and the DA 106-04-00 was not available at the time of conducting the audit.
	***Environmental Monitoring Program* (AngloAmerican, July 2013)**
	- The Environmental Monitoring Program should be updated so that refers to the current network of surface and groundwater monitoring locations; and - The site should reconcile the Environmental Monitoring Program with updates to management plans as and when those updates occur.
	Previous IEA 2012
	- It is recommended that the Site update its document control process to ensure that when new and revised document are finalised, these are uploaded on the website; and - It is recommended that the site consider including a short statement in noise monitoring reports (in addition to the tabulated monitoring findings) confirming whether any exceedances were or were not detected during the reporting period.
	General Recommendations
	- It is recommended that onsite staff, particularly those in operational and maintenance management roles, be familiarised with the regulatory requirements to notify potential material environmental harm incidents immediately upon becoming aware of them. Furthermore, the site's PIRMP should be updated to reflect the current regulatory requirements of immediate notification to the EPA and other relevant authorities, as the

Reference	Recommendation
	current PIRMP references the old requirement to notify as soon as practicable/within 24 hours; - Certain aspects of the site's environmental management are delegated to other areas of mine management. While the delegation of these matters of environmental management may be appropriate to meet operational needs, it is recommended that there is regular communication between environmental staff and the staff responsible for the day-to-day management of these environmental matters; and - It is recommended that the site implement an inspection regime for fences.

This page has been left blank intentionally.

Appendix A

Audit Team Curricula Vitae

Appendix A Audit Team Curricula Vitae

Ian Richardson
Environment Business Line Director - Hunter

Qualifications

Graduate Diploma in Occupational Health & Safety - University of Newcastle, NSW (2003)

Bachelor of Environmental Science (Earth Science) – University of Newcastle, NSW (2000)

Exemplar Global Certified Lead Auditor

Associate Member Australian Institute of Occupational Hygienists

Chartered Professional Member (CPMSIA) Safety Institute of Australia Ltd

Licensed Asbestos Assessor (Licence No: A120260)

Career History

Ian joined AECOM as the Workgroup Manager for the Environment, Health and Safety team prior to moving into the role as Hunter Environment Business Line Director and more recently also taking on a role as the Area Manager - Hunter. In addition to these operational roles, Ian is also the technical practice area leader for AECOM's Environmental Health and Safety (EHS) practice for Australia and New Zealand.

Ian has over 20 years' experience working in environmental assessment and monitoring, environmental compliance, occupational health and safety, hazardous materials and project management in both the private and government sectors. Ian also has experience in management system development, asset management, and business continuity planning.

Ian is an Exemplar Global accredited lead auditor and has managed large scale audit programs and audits of Management Systems, Environmental Hardware, Environmental, Health and Safety Compliance, Construction Compliance, Waste and Hydrocarbon Management. He has been accepted by NSW Department of Planning as a lead auditor for auditing of approval conditions and environmental compliance and as an approved EHS auditor by NSW DTIRS DRE.

As the AECOM Hunter Area Manager, Ian is responsible for a team of over 100 scientists, designers, engineers and project managers across the Hunter Operations with offices in Warabrook and Singleton.

Detailed Experience

Auditing

Ian is an Exemplar Global (formerly RABQSA) Accredited Lead Auditor. Ian has experience in the development and implementation of Environmental and OHS management systems, OH&S system audits and Workers Compensation Case Management audits. Ian also has direct experience in the implementation of OHS and workers compensation management systems and audits in a NSW self-insurer environment.

Representative projects include:

- **Origin Energy (Eraring Power Station), Environmental Compliance and Environmental Hardware Audit**

  Lead auditor for an independent environmental audit of the Eraring Power Station site. This included auditing of compliance with a range of environmental planning approvals, permits and licences and environmental legislation applicable to the site. The scope of this project also included an audit of the performance and maintenance of environmental hardware systems across the site.

- **Tyco International Environmental, Health and Safety Compliance Assurance Process (CAP) Audits – Tyco Water Services, Tyco Flow Control and Tyco Fire and Security**

  AECOM has been providing global EHS compliance auditing services for Tyco International over many years. Ian has been the AECOM audit program manager and Lead Auditor for Tyco Internationals Environmental, Health and Safety Compliance Assurance Process (CAP) Audit Program throughout Australia and the Pacific. The audit scope for these audits includes compliance with WHS legislation, environmental legislation and Tyco International Corporate EHS Standards.

- **PPG Environment, Health and Safety Compliance Audits**

  Environment, health and safety compliance audit for a large industrial facility in Victoria, Australia. The site was a major hazard facility and incorporated process safety as well as compliance with Australian environmental and health and safety legislation.

- **Baltimore Aircoil (BAC) Environment, Health and Safety Compliance Audits**

  Lead auditor for EHS compliance audit of BAC manufacturing facility within NSW, Australia. This audit reviewed compliance with Australian environmental and health and safety legislation and review against global company standards.

- **GE Healthcare (GEHC) Environment, Health and Safety Compliance Audits**

  Lead auditor for EHS compliance audits of GEHC serum processing facilities within Australia and New Zealand. These audits reviewed compliance with Australian and New Zealand environmental and health and safety legislation.

- **Weston Aluminium – Independent Environmental Compliance Audit**

  NSW Department of Planning approved lead auditor for an independent environmental compliance audit of the Weston Aluminium scrap and dross recovery facility as required under the development approval.

- **Koppers Wood Products and Koppers Carbon Materials**

  AECOM audit program manager and Lead Auditor for Environmental, Health and Safety compliance audits at Koppers Wood Products facilities in NSW, QLD, WA and Tasmania and Koppers Carbon Materials facilities in NSW and Victoria. The audit scope included compliance with WHS legislation, environmental legislation and management system review against Koppers Global Safety Health and Environmental Management System (SHEMS).

- **Glencore XStrata PLC – Independent Environmental Audit, West Wallsend Colliery**

  Peer reviewer for an independent third party environmental audit of West Wallsend Colliery.

- **Bengalla Mining Company Pty Limited – Independent Environmental Audit, Bengalla Mine**

  Project manager and peer reviewer for an independent third party environmental audit of Bengalla Mine.

- **XStrata Mangoola Pty Limited – Independent Environmental Audit, Mangoola Coal Mine**

  Project manager and peer reviewer for an independent third party environmental audit of Mangoola Coal Mine.

- **Navis EHS Due Diligence audit of TES AMM Facility, Villawood NSW**

  Reviewed health and safety and environmental compliance for an electronics waste processor in Villawood, Sydney NSW. The audit included a review of all relevant State and Commonwealth legislation and regulations and pre-purchase due diligence. Despite the site being relatively benign with respect to the level of risk a number of non-compliances were identified and some areas of

risk identified that the site were not aware of or managing currently.

- **Smith Group – Interconnect – Kaelus Audit, Cannon Hill QLD**

  Reviewed environmental, health and safety compliance for a communication electronics manufacturer in Cannon Hill, Queensland. The audit assessed compliance with relevant State and Commonwealth legislation and regulations and also addressed additional corporate requirements.

- **Valspar Due Diligence Audits**

  Lead auditor for EHS due diligence audits of Valspar sites within ANZ. Key focus on hazardous substances handling and management due to the nature of paint production facilities. The audit scope included compliance with state and commonwealth environmental and WHS legislation and Valspar Corporate EHS Standards.

- **Sikorsky Helitech EHS Compliance Audits**

  Lead auditor for EHS compliance audit of Sikorsky Helitech Facility in Brisbane, QLD to assess compliance with QLD Environment, Planning and WHS legislation and global corporate EHS standards.

- **University of the Sunshine Coast (Queensland) – WHS Compliance Audits**

  Project director and technical reviewer for general WHS compliance audits of the University of the Sunshine Coast (Qld) campuses over a period of approximately 2 years. Approximately 30 WHS compliance audits were undertaken during this period.

- **Moolarben Coal Operations Pty Ltd – NSW Department of Trade and Investment Regional Infrastructure and Services**

  Compliance audits of exploration licences as an approved EHS auditor by DTIRS DRE.

- **Estee Lauder International – EHS Compliance Auditing Program**

  Lead auditor under Estee Lauder international compliance auditing program for EHS compliance audits of the Roseberry Warehousing and Distribution Centre, NSW.

- **Hunter Water Corporation – WHS Compliance Audits**

  Following the implementation of the new WHS Act and Regulation in NSW, a compliance audit of the existing OHSMS was undertaken to identify compliance with the new legislation and to facilitate the development of a gap analysis and action plan to achieve compliance.

- **Newcastle City Council – National OHS Self Insurer Audits**

  Self-insurer compliance audits for Newcastle City Council. Audits of a range of operational business units undertaken in various capacities (Lead Auditor, audit team).

- **Newcastle City Council - NSW Workers Compensation Self Insurer Compliance Audits**

  Case management audits undertaken to assess compliance with regulatory requirements and NSW Self Insurer Scheme.

Training

NSW Underground Coal Mine Induction incorporating Self Escape and Compressed Air Breathing Apparatus (CABA) – NSW Mines Rescue Service

Bronze Medallion/Certificate II in Public Safety (Aquatic Rescue)

Advanced Resuscitation Techniques Certificate (ARTC)

Spinal Management Certificate (SLSA)

Radio Operator Certificate (SLSA)

Senior First Aid, 2012

Rail Industry Safety Induction (RISI)

Certificate II in Mould Remediation & Investigation

Two Day Project Manager Training, PSMJ for AECOM Australia, 2010

Train the Trainer, AECOM 2010

New Framework for Development Contributions Short Course - University of Technology, Sydney 2008

Erosion and Sediment Control Management on Building and Development Sites 2007

Environmental Assessment & Cleaner Production Training for Local Government - NSW Department of Environment & Conservation 2006

Asbestos Awareness Course for Management 2006

Environmental Noise Workshop – Australian Institute of Environmental Health 2003

Noise Guide for Local Government – NSW Department of Environment and Conservation 2004

WorkCover NSW Occupational Health and Safety Induction Training for Construction Work 2000

Professional History

2013 – Present
AECOM
Environment Business Line Director - Hunter

2010 – 2012
AECOM
Associate Director/Workgroup Manager EHS

2008 – 2010
Newcastle City Council
Manager Business Support/ OH&S Injury Management Advisor

2003-2008
Newcastle City Council
Senior Environment Protection Officer/Senior Development Officer – OH&S Systems Development.

1995-2003
HLA-Envirosciences
Environmental Health Officer

Jessica Miller
Environmental Planner

Qualifications
Bachelor of Laws, University of Newcastle

Advanced Diploma of Applied Environmental Management, Belmont TAFE

Bachelor of Arts (Sociology and Anthropology), University of Newcastle

Exemplar Global accredited Environmental Auditor

Auditing Experience

Jessica's background in environmental management and law gives her a unique perspective in assisting clients as she audits their environmental compliance. She has acted as audit assistant for several Independent Environmental Audits. In this role, she is responsible for developing audit protocol and formulae for reporting environmental compliance, liaising with key clients, interpreting and determining issues of audit compliance, and providing recommendations to improve the effectiveness and workability of management plans.

Mining audits include the following:

- Werris Creek Mine.
- Ravensworth Underground Mine.
- Mt Owen Mine.
- Wilpinjong Mine.
- West Wallsend Colliery.
- Mangoola Coal Mine
- Bengalla Coal Mine.
- Moorlarben Coal Mine and Clarence Colliery as part of the NSW Department of Resources and Energy's state-wide audit of Exploration Licences in mid-2011.

Jessica also prepared an audit protocol for the Ravensworth North Project, to assist with ongoing internal compliance.

Jessica's manufacturing auditing experience includes two Independent Environmental Audits for Allied Mills' food manufacturing facilities in the greater Sydney

- Has prepared quarterly update reports on environmental and occupational health and

region in 2013, as well as a an environmental audit for a BAC manufacturing facility on the Central Coast in 2015.

In 2015 she undertook the environmental component of internal corporate compliance audits for PPG paint manufacturing and distribution facilities in Clayton, Victoria, and Auckland, New Zealand.

Environmental Planning Experience

- Preparation of Environmental Impact Assessments under Part 4 of the *Environmental Planning and Assessment Act 1979* (NSW) (EP&P Act).
- Preparation of Reviews of Environmental Factors under Part 5 of the EP&A Act. Includes projects such as ARTC, RailCorp and Sydney Trains rail maintenance, RMS road widening, construction of a shared pedestrian and cycle pathway by local government, and exploratory drilling works at Mangoola Coal Mine.
- Preparation of Environmental Assessment for Major Project under old Part 3A of the EP&A Act: construction and operation of a bulk fuel storage facility in Newcastle Harbour.
- Preparation of Environmental Impact Assessment for State Significant Development under Part 4.1 of the EP&A Act: conversion of Shell's crude oil refinery in Parramatta into a refined oil storage facility. This included co-authoring the Ecological Assessment and related referral under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) for *Litoria aurea* (Green and Golden Bell Frog).

Legal Experience

- Works alongside in-house counsel and independently to review, negotiate and redraft commercial contracts with AECOM's clients. Provides legal training to AECOM project staff. Assists in training new in-house counsel staff.

safety law amendments for Eraring Energy.

- Experience in managing freedom of information request via government stakeholder.
- Member of AECOM's safety committee.
- Land access and statutory approvals for the rollout of the National Broadband Network.

Previous Secondments

- Environmental Planner for Transport Express Joint Venture as part of the North Coast Curve Easing program.
- Contracts Advisor for AECOM commercial team.
- Land Access and Statutory Approvals Officer for NBN Co Limited.

Other Experience

- Annual Environmental Management Report for Hydro Aluminium Kurri Kurri.
- Review and update of the Long Term Management Strategy for Eraring Energy's Coal Combustion Products.
- Preparation of winning submission for Eraring Energy's entry into the 2011 Hunter Manufacturing Awards.
- Undertaken in-field ecological and water quality monitoring work for Centennial Coal.

Conferences

Attended AECOM's Graduate Induction conference in Brisbane, March 2011

Training

WorkCover NSW Construction Induction

Communication for Success – EQ

Delivering Successful Presentations

Safety for Life

Managing AECOM Projects (MAP) training course

Professional History
November 2010 – December 2013
AECOM
Graduate Environmental Planner

January 2014 – Present

AECOM

Professional Environmental Planner

Michael Allan
Principal Acoustics Engineer

Qualifications
BE(Hons) Mechatronics

Affiliations
Member of Engineers Australia
Member of Australian Acoustical Society
Member of Permanent Way Institute

Publications and Technical Papers
M. Allan, D. Duschlbauer, M. Harrison *Implications of updating the vibration assessment methodology of BS6472 from the 1992 to the revised 2008 version.* Acoustics Australia, Vol. 38 August (2010) No. 2 (p. 95-98).

Career History
With over 10 years of professional experience Michael has a proven ability to undertake detailed construction and operational noise and vibration assessments on large infrastructure projects. Michael is proficient in the assessment and control of airborne noise and also ground-borne noise and vibration.

Michael is currently providing technical advice across a wide range of state, national and international clients. He provides technical services to clients through Australia, South-east Asia, the Middles East, the United States and South America.

Engaging with key stakeholders, particularly the community has been a key component for most of the projects Michael has been involved with. This has developed his ability to discuss noise and vibration project issues with any stakeholder at a level that suits their involvement with the project.

Michael has a comprehensive understanding of NSW, Commonwealth and international noise legislation. This breadth of understanding brings an insight into not only the specifics of local legislation and how it should be applied, but how and why it has been derived. This is often important to stakeholders who want to know the relevance of the criteria and what it means.

Michael's knowledge is not limited to just noise, but also ground-borne noise and vibration. Michael has undertaken extensive research and measurements of existing underground rail networks. These projects have led to the development of specialised software to calculate the emission and transmission of ground-borne noise and vibration.

Michael has been involved with a wide range of projects relating to land development. He is currently working in the role of Acoustic Technical Advisor for the South West Rail Link (SWRL). The SWRL will provide improved transport services to the South West Growth Centre. Michael is providing on-going acoustic and vibration advice throughout each phase of this project to minimise the impact on the future community. Considering land zoning has not yet been finalised, providing advice on the impacts of potential zoning adjacent to the rail corridor is a key part of this project.

Key Experience
Michael provides ongoing technical advice to the NSW government for road noise, rail noise, ground-borne noise and vibration.

Key project experience includes:

- *Port Kembla Coal Terminal Auditor* – Michael undertakes bi-yearly audits of PKCT to ensure that the facility meets the conditions of approval and provides recommendations to further reduce noise impacts to the local community.
- *Newcastle Ports Corporation Mayfield Concept Plan* – The Mayfield Concept Plan will accommodate a diverse range of cargo handling infrastructure and the promotion of trade. This site will grow over time, yet the overall noise targets will be fixed. Michael developed new tools and processes to ensure that development undertaken now will not restrict the noise generation of future developments. This used a complex noise quota system, accounting for existing noise exposure and potential future noise exposure from future development. This project was very well received by the NSW Environment Protection Authority. The EPA is currently considering making it a requirement for future developments.
- *Maldon Rail Terminal* –Boral proposed to develop a rail terminal at the Blue Circle Southern Cement (BCSC) Plant located at Maldon to receive up to 2.0 mtpa of coarse aggregates and sand by rail from Boral's aggregate supply network and distribute by road transport to the Sydney market. Michael undertook measurements and modelling of the existing and proposed operations to predict likely impacts on the local community.
- *Maldon Employment Lands* – Wollondilly Shire Council was preparing a draft Local Environment Plan (LEP) for the proposed rezoning of rural land for industrial uses at Maldon. Michael prepared a noise and vibration assessment that considered the potential impact on nearby residential receivers from the proposed development.
- *Australian Coal Association Research Program* - Michael recently completed a project for the Australian Coal Association Research Program for the development of a real-time noise prediction tool for the management of large mining sites. This project incorporated real-time operational data from the mine including GPS tracking on operational equipment and live weather data to determine existing and future noise impacts. The system utilised a secure online GIS portal for the high quality display of the predicted noise levels. The system is used to determine the existing impact of the site and to forecast upcoming impacts based on the shift plan and forecast weather data.
- *Industrial development noise quota management* – Michael developed software for the management of noise from complex industrial sites. The software balances a noise quota system, considering the day, evening and night criteria at range of different sensitive receivers. The noise criteria are cumulative noise criteria from all sites across the development, so it must be complied with when the site is fully developed. The software balances the quota across each individual site; ensuring that an individual site does not limit the potential of the entire development.
- *NorthConnex* – This project would link the M1 and M2 motorways in north-west Sydney. The project included two complex interchanges and a tunnel linking the project. Michael led the environmental assessment noise and vibration project team ensuring the project was delivered on time, met the legislated requirements and was technically accurate. Michael also attended community consultation events, providing technical information and discussing the communities concerns in person.
- *Singapore ER419 KJE/PIE Environmental Impact Assessment* – AECOM Singapore Pte Ltd has been commissioned to assess the construction and operational noise and vibration impacts of Kranji Expressway (KJE) /Pan Island Expressway (PIE) Enhancement works. Michael is currently leading a Singapore based team for the assessment of noise and vibration from the construction and operational phases of the project. This is the first road noise assessment undertaken in Singapore and in collaboration with the Singapore government has required the definition of an appropriate noise criteria and assessment methodology.
- *High Speed Rail Phase 2* – Michael undertook a high level impact assessment of a HSR network from Brisbane to Melbourne. This study required extensive research into international experience with noise and vibration impacts and cost-effective mitigation.
- *ARTC Curve Easings* – Michael undertook noise and vibration impact assessments of 58 discrete sites between Sydney and Brisbane on a predominantly freight rail line. These impact assessments consider both the operational and construction potential impacts as a result of the realignment of existing rail.

Dee Murdoch

Qualifications

Graduate Diploma of Land Rehabilitation, Ballarat University, 1995

Certificate of Horticulture, Charlestown TAFE, 1990

Bachelor of Science, University of Newcastle, 1982

Role

Associate Director

Years of Experience

25

Affiliations

Board Member - Tom Farrell Institute – University of Newcastle

Member, International Society for Ecological Restoration

Member, Ecology Society of Australia

Member, Australian Network for Plant Conservation

Member, NSW Weeds Association

Professional History

Nov 2013 – Dec 2014 –- Volunteer assignment - Australian Volunteers for International Development with Australia Red Cross – host organisation Kenya Red Cross

2010 - Present

AECOM Australia Pty Ltd

Associate Director

2009 - 2010

AECOM Australia Pty Ltd

Manager – Singleton Office

2001 - 2009

HLA- Envirosciences Pty Ltd

Manager – Singleton Office

2000 - 2001

HLA- Envirosciences Pty Ltd

Land Rehabilitation Scientist

1995 - 2000

NSW Department of Land and Water Conservation

Crown Reserves Management Officer - Hunter

1990 - 1995

RZM Pty Ltd

Rehabilitation Specialist

1985 - 1990

Retail and wholesale nursery industry

1989 - 1999

TAFE NSW - Teacher, Syllabus technical writer

CAREER HISTORY

Dee is a land management specialist. Her area of core expertise is the establishment of objectives, criteria and indicators for post mining landuse and landscape through to the development, implementation and monitoring of rehabilitation programs. These include ecologically sustainable native plant communities, mine site revegetation, assessment of stocking rates / carrying capacity and pasture productivity, seed collection, habitat reconstruction and enhancement, weed and vertebrate pest animal management and control. More recently Dee has been utilising her knowledge and skills gained from living on a beef cattle farm in the Upper Hunter valley of NSW, together with previous monitoring projects to undertake assessments of disturbed lands returning to pasture and cattle production.

Dee has been working at the cutting edge of the management and rehabilitation of native plant communities for the past 25 years. Her work has focused on the formulation of sustainable solutions for the rehabilitation of grossly disturbed ecosystems that have resulted from mining for coal and mineral sands, land development and military activities with the solutions incorporating key issues as raised by all stakeholders. During this time Dee has been involved in a range of stakeholder and community liaison projects ranging from access agreements through to final land use and landscape assessment.

Throughout this time Dee has demonstrated a practitioners understanding of the legislation relating to resource extraction, whether this be under legislation for mining or extractive industries or the regulatory framework that defines the approval process and operating conditions for the resource industry in Qld and NSW. The expertise also extends to matters pertaining to impact on Crown land under the NSW *Crown Lands Act 1989* as developed during her employment with the NSW Crown Lands department.

RELEVANT PROJECT EXPERIENCE

Mine Planning and Closure

An integral part of any mining operation is that as relates to mine planning and closure. Dee has developed a range of management plans and MOPs for AECOM clients being based on the State relevant regulatory guidelines with particular reference to the NSW Trade & Investment Environment Sustainability Unit -Mineral Resources – *ESG3 Mining Operations Plan (MOP) Guidelines*, of which she was the author under contract to NSW DRE. The strength of these documents lies in Dee's extensive experience of the operational aspects of a mining, combined with her varied knowledge and hands on skill base of the rehabilitation program. These attributes combine to develop the initial assessment of risk as pertains to the rehabilitation of the site and from there the development in close consultation with the client and regulators of strategic development of completion criteria, performance measures and indicators using domains to define the landscape and post operation landuse.

- **Rio Tinto Coal Australia – Blair Athol Mine**
  Microhabitat Report –(Feb 2013); Revegetation Planning Report (Mar 2013) Components of the Decommissioning Plan
- **Bloomfield Group**
  Rix's Creek Mining Operations Plan (Feb 2013)**Error! Unknown document property name.Error! Unknown document property name.Error! Unknown document property name.**
- **Ashton Coal Operation**
  Ashton Coal Project Mining Operations Plan (Mar 2013)
- **Coal & Allied - Hunter Valley Operations**
  North Mining Operations Plan (Aug 2012)
- **Coal & Allied - Mt Thorley Warkworth**
  Mining Operations Plan (Aug 2012)
- **Coal & Allied - Mount Pleasant Mine**
  Biodiversity and Rehabilitation Management Plan – Dec 2011.
- **BHP Billiton - Mt Arthur Coal**
  Rehabilitation Strategy - Oct 2011, Biodiversity and Rehabilitation Management Plan – Dec 2011

- **CMPL - CSA Mine Cobar**
  Rehabilitation and Environment Management Plan – Dec 2011; Mining Operations Plan 2012
- **Coal & Allied - Mount Thorley Operations**
  Abbey Green - Rehabilitation and Land Management Plan – May 2010; Mining Operations Plan 2012
- **Coal & Allied - Hunter Valley Operation South Coal Project**
  Rehabilitation and Land Management Plan – Mar 2010; Mining Operations Plan 2012
- **Xstrata - Ravensworth Complex**
  Rehabilitation, Biodiversity and Land Management System – 2009-2010.

Management and Monitoring of Sustainable Landscapes

To have a true understanding of a landscape the data collection, collation and interpretation techniques that are associated with monitoring programs need to be relevant to the client's ongoing land management commitments. Over the past 25 years Dee's work has included the development, implementation and supervision of a range of monitoring projects. The use of the data derived from seed, pasture and habitat surveys, has been used to underpin the range of restoration ecology techniques that she has developed, many of which have subsequently become accepted as industry lead practice. These techniques range from the innovative use of large woody debris in mineral sands mining projects on the Tomago Sandbeds (NSW) to habitat reconstruction for woodland birds on coal mining sites across the Hunter Valley of NSW.

Recent projects Dee has authored, technically peer reviewed, managed, supervised and/or implemented include:

- **Rio Tinto Coal Australia | Coal & Allied - Mount Thorley Warkworth (MTW) and Hunter Valley Operations North (HVO North)** - Monitoring of post-mined rehabilitated pasture lands and associated reference / analogue sites - March 2015
- **Rio Tinto Coal Australia | Coal & Allied - Monitoring Methodology for Mt Thorley and Hunter Valley Operations Nov 2012.** Methodology incorporates
  - BioBanking Assessment Methodology - Site Value Score (DECC 2008);
  - Ecosystem Function Analysis (CSIRO Tongway & Hindley 1997);
  - Accredited soil analyses and various measures of ecosystem diversity and habitat values;
  - Assessment of pasture productivity, carrying capacity and stocking rates; and
  - Assessment of Land Capability (Emery 1985).
- **Centennial Coal – Lamberts Gully, Ivanhoe North, Ivanhoe No. 1, Blue Mountains Colliery**
  Annual Monitoring using Ecosystem Functional Analysis – 2010 - current
- **Centennial Coal – Charbon Mine**
  Annual Monitoring using Ecosystem Functional Analysis (Mar 2013)
- **Bengalla Mine**
  Annual Monitoring using Ecosystem Functional Analysis – 2011 - current
- **Ravensworth Operations**
  Annual Monitoring using Ecosystem Functional Analysis, Pasture Assessment and Carrying Capacity - 2009, 2010, 2011
- **Hunter Valley Operations**
  Habitat Augmentation Survey – Nesting boxes, Timber Debris and Rock Stockpiles – 2007 - 2011

Weed Management and Control

Dee has undertaken a diverse range of projects relating to strategic weed management and control projects for Weeds of National Significance (WONS), noxious species as listed under the *Noxious Weeds Act 1999* and environmental species that have a proven impact on the biodiversity of a site.

The projects have incorporated innovative ideas that have been aligned to industry best practice guidelines, OHS and site capability requirements (as required under the *Pesticide Act 1999*), ecologically sustainable goals and legislative requirements related to the development of weed management plans and strategies.

Dee has extensive experience in the supervision and implementation of on-ground weed control operations via the utilisation of chemical, manual, mechanical and biological control techniques that have incorporated work crews of up to 35 people on ecologically sensitive plant communities relevant to weeds.

Projects include:

- **Department of Defence**
  National Guidelines for the Management of Ferals, Weeds and Overabundant Species, 2004 – 2008.
- **RAAF Base Glenbrook and Defence Establishment Orchard Hills DMM Pty Ltd on behalf of the Department of Defence**
  Weed Management and Control Operations, RAAF Base Richmond, 2008 – June 2011.
- **Hunter Valley Operations, Singleton**
  Weed Management and Control Operations, Singleton, NSW, 2003 – Dec 2011.
- **Mt Thorley Warkworth Mine, Singleton**
  Weed Management and Control Operations, Singleton, NSW, 2003 – Dec 2011.
- **Ravensworth Operations Pty Limited, Singleton**
  Weed Management and Control Ravensworth Narama and East Mines, 2002 – 2011.
- **Eraring Energy**
  Weed Management Plan and On-ground Weed Control Operations, Eraring Power Station, Eraring, 2003 – 2011.

Overabundant Native Fauna

During her time with AECOM Dee has undertaken/been closely involved in the development of industry leading practice relating to the management and control of overabundant native fauna, with a particular focus on macropod species. These projects have resulted in the development of the *National Guidelines for the Management of Feral, Weeds and Overabundant Native Species* for the Department of Defence, together with management plans for areas of the Defence estate including the *Eastern Grey Kangaroo Management Plan for Singleton Military Area* and the *Macropod Management Plan for RAAF Base Williamtown*. Further to this Dee has taken the role of Project Manager of works relating to macropod management for RAAF Base Williamtown.

Vertebrate Pest Animal Management and Control

Dee has undertaken many strategic vertebrate pest animal management and control projects. These projects have incorporated industry best practice guidelines, OHS and site capability requirements, environmental conservation goals and legislative requirements related to the development of vertebrate pest animal management plans and strategies, and the supervision and implementation of on-ground vertebrate pest animal control operations.

Projects have incorporated industry best practice methods related to the management of impacts to non-target species and the implementation and/or supervision of control techniques including trapping, baiting, fumigation and shooting of pigs, rabbits, hares, dogs, foxes, horses, introduced bird species and cats.

Dee assesses the project goals and objectives and management and control methods available to evaluate their use or impracticalities for each site before determining a control program.

Monitoring programs are designed to collect sufficient and relevant data that can be integrated with GIS methodologies to assess the effectiveness of the on-ground pest animal control operations program and the impacts the target animals are having at each specific site.

Depending on the reasons for control of pest species, monitoring usually involves whether the control action actually reduced the abundance of pest species and the response of native species and ecological communities to the control action.

Qualifications
Bachelor of Engineering (Chemical) Newcastle University 1997

Publications and Technical Papers

Rollings, D., 2010, *Analysis of Inconsistencies Between Measured Ambient Fluoride Monitoring Data Collected Over Different Measurement Periods*, Presented at the Biannual IUAPPA conference in Vancouver Canada

Rollings, D., 2009, *Mass Balance for Retrospective Air Quality Impact Assessment to Assess Historical Ethylene Oxide Impacts*. Presented at the biannual CASANZ conference in Perth, WA Australia.

Plant, A. and Rollings, D., 2009, *Consideration of Odour Characteristics when Modelling Large Area Sources*. Presented at the biannual CASANZ conference in Perth, WA Australia.

Thompson, R. and Rollings, D., 2009, *Formaldehyde Emissions From Industrial Gaseous Fuel Combustion Applications*. Presented at the biannual CASANZ conference in Perth, WA Australia.

Rollings, D. and Marlin, H., 2007, *Comparison of measured and prognostic meteorological parameters used in dispersion modeling*. Presented at the joint IUAPPA / CASANZ Clean Air Conference in Brisbane, NSW Australia.

Career History
David Rollings is a Chemical Engineer with over 17 years of experience in a range of environmental consulting fields including air quality impact assessments, contaminated land assessment and remediation projects and a wide variety of air, water and soil sampling projects for a variety of industrial, commercial and government clients.

David manages the AECOM Australia air quality modelling team which services projects from all over Australia. David has extensive experience working with a wide range of models including CALPUFF, AERMOD, TAPM, CALINE and various smaller project specific models such as SLAB and TANKS. These models have been applied across a wide array of clients and industry resulting in a very strong understanding of the relative advantages of the various models for different applications.

As part of his current role, David is responsible for much or the regulatory negotiations on behalf of clients and regularly meets with the NSW OEH air branch to discuss issues associated with ensuring a good environmental outcome whilst still ensuring reasonable expectations on industry.

In addition to the dispersion modelling aspects of the impact assessments, David also designs and assists in the management of small to large air quality monitoring programs including ambient monitoring and point source collection e.g. stack testing. David manages the collection of data from a variety of sources necessary for completing assessments to regulatory authority standards.

Detailed Experience
Air Quality Impact Assessments

David has undertaken a large number of Air Quality Impact Assessments (AQIA) for a range of project types including Environmental Impact Assessments, Due Diligence Studies, and Assessments for Court Cases, Operating License Investigations, Works Approvals and Occupational Health Investigations. Projects have included dispersion modelling using CALPUFF, AERMOD, Ausplume, Caline 4 and TAPM dispersion models.

Recent projects either undertaken or overseen include:

Community Engagement and Auditing

- NorthConnex Air Quality Forum, Transurban, July 2014.
- Port Kembla Coal Terminal Environmental Audit, 2014.
- North Head Air Quality Study Council and Community Engagement Presentations, Sydney Water, 2013
- East West Link Community Consultative Committee Air Quality Advice, 2012
- Orica Wire Rope Air Quality Report Community Consultative Committee Air Quality Advice, 2010

Mining Experience

- Olympic Dam Copper and Uranium Mine Expansion Feasibility and EIS Dispersion modelling, SA, 2006 – 2014;
- Boundary Hill Coal Mine EIS AQIA, 2013.
- Rolleston Coal Mine Capacity increase 2011-2012.
- Dawson Coal Mine, Air Quality Management Plan, 2012.
- Stockman Copper Mine AQIA, 2011-2013;
- Arafura EIS Rare Earth minerals AQIA, SA 2011-2012.
- Tahmoor Colliery Vent Shaft Odour impact Assessment, 2010
- Tahmoor Colliery vent shaft stack design, 2010

Port Redevelopment Projects

- Port of Townsville Outer Harbour Redevelopment AQIA, 2011-2013
- Oakajee Rail and Port infrastructure air quality impact assessment dispersion modelling, WA 2010 – 2011;
- Newcastle Port Corporation Former BHP Steelworks Site Redevelopment Concept Plan AQIA, NSW 2009-2010;
- Port Kembla Outer Harbour Redevelopment Concept Plan AQIA, NSW 2009-2010;

Odour Assessment Projects

- SITA Waste management facility AQIA, Western Sydney, 2012
- Barangaroo Remediation and Site Redevelopment Approval AQIA, 2011-Current
- Odour Impact Assessment for four STP's owned and operated by Thuringowa Council in North Queensland, 2008;
- Odour Impact Assessment for redeveloped STP owned and operated by Mareeba Shire Council in North Queensland, 2008;
- Court Appearance for Muswellbrook Council relating to land use conflict between development and an STP, NSW 2009
- Odour Impact Assessment for redeveloped STP owned and operated by Muswellbrook Shire Council in Upper Hunter Valley, NSW, 2008;
- Odour Impact Assessment as part of a Regulatory Pollution Reduction Program, Walfertan Processors, NSW 2005

Heavy Industry Experience

- Asphalt Plant Odour impact assessment and Monitoring, DTEI, SA 2009 – 2010;
- Unomedical air quality Impact assessment, regulatory advice and technical support to aid in the re-opening of Unomedical facility following a cease work order, NSW, 2007-2008;
- Predictive Air Quality Impact Assessment, National Ceramics Industries Australia, Rutherford (NSW), 2007
- Oxides of Nitrogen Modelling, Hydro Aluminium Smelter, Loxford NSW, 2007
- Oxides of Nitrogen Modelling, Hydro Aluminium Smelter, Loxford NSW, 2007
- Odour Impact Assessment of proposed extension to the Cargill Oil Seed processing facility situated on Kooragang Island NSW 2005
- Operating license Pollution Reduction Program odour modelling, CSR-PGH, Cecil Park (NSW), 2005

Conferences
CASANZ conference 2009, Perth, WA. Australia

IUAPPA / CASANZ Conference, 2007, Brisbane Qld, Australia

IUAPPA Conference, 2010, Vancouver BC Canada

Training
Calpuff Training Course, 2000

AERMOD Training Course, 2007

Ausplume Beginner and Advanced Training Course, 1999

TAPM Training Course,

Meteorology for Dispersion Modellers Training Course, 2006

Professional History

1997 - Present
AECOM

Graduate - Principal

Appendix B

Audit Meeting Agenda

Appendix B Audit Meeting Agenda

AECOM Australia Pty Ltd
17 Warabrook Boulevard
Warabrook NSW 2304
PO Box 73
Hunter Region MC NSW 2310
Australia
www.aecom.com

+61 2 4911 4900 tel
+61 2 4911 4999 fax
ABN 20 093 846 925

Meeting Agenda

		Pages	2
Subject	Draytons Mine Independent Environmental Audit		
Venue	Draytons Mine Boardroom		
Participants	Ian Richardson, Jessica Miller, Michael Allen, Dee Murdoch, David Rollings, Brooke York		
File/Ref No.	60447677	Date	3 to 5 November 2015
Distribution	As above		
		Time	8:30 am – 5:00 pm

Day 1 – Tuesday 3 November 2015

No	Content	Time	Location
1	• Opening Meeting • Introductions & Audit Purpose • Confirmation of Meetings and Process • Overview of Draytons • Review of Development Consent • Site visit by Michael Allen (acoustics specialist)	9:00	Board Room
	Lunch	12:30	
2	• Review of Development Consent, Environmental Protection Licence and Mining Leases	13:00	Board Room
3	• Acoustics site inspection	13:00	In-field
4	• General environmental site inspection	14:00	In-field
	Day End	17:00	

Day 2 – Wednesday 4 November 2015

No	Content	Time	Location
1	• Site visit by David Rollings (air quality specialist) • Review of Draytons management plans	8:00	Board Room
	Lunch	12:30	
2	• Air quality site inspection	13:00	In-field
3	• Review of Draytons management plans	14:00	Board Room
	Day End	17:00	

Day 3 – Thursday 5 November 2015

No	Content	Time	Location
1	• Site visit by Dee Murdoch (rehabilitation and closure specialist) • Review of Draytons management plans	8:00	Board Room
	Lunch	12:30	
2	• Rehabilitation and closure site inspection	13:00	In-field
3	• General environmental site inspection	13:00	In-field
4	• Review of Draytons management plans	14:00	Board Room
5	• General environmental site inspection	15:00	In-field
6	• Auditor Review	16:00	Board Room
7	• Closeout meeting	16:30	Board Room
	Day End	17:00	

Appendix C

Approval from DP&E and Specific Matters from the Department of Industry

Appendix C Approval from DP&E and Specific Matters from the Department of Industry

Contact: Scott Brooks
Phone: (02) 6575 3401
Fax: (02) 6575 3415
Email: scott.brooks@planning.nsw.gov.au

Our ref: 06_0202

The Mine Manager
Drayton Coal Pty Ltd
PMB 9
MUSWELLBROOK NSW 2333

25 September 2015

Attention: Brook York

Dear Brook

Drayton Coal IEA

I refer to your email dated 25 September 2015 seeking approval of an audit team to undertake an independent environmental audit of Drayton Coal Pty Ltd required by the Drayton Mine Extension Project Approval (06_0202) and the Drayton Rail Loop and Antiene Rail Spur Development Consent (106-04-00).

In accordance with Conditions 6 and 7 of Schedule 5 of the Drayton Mine Extension Project and Condition 7.1 of the Drayton Rail Loop and Antiene Rail Spur, the Director-General has approved the following audit team from AECOM to conduct this audit:

Core Audit Team
- Ian Richardson– Lead Auditor
- Jessica Miller– Auditor
- Michael Allan– Acoustics specialist
- Dee Murdoch– Rehabilitation and Closure specialist

Audit Support Team
- David Rollings – Water Management

Drayton will need to liaise with the relevant agencies including the Department prior to scoping of the audit, to ascertain any issues that the agencies wish the audit to address. Evidence of consultation is to be provided in the audit report.

The Department expects that the audit will be conducted in accordance with the attached audit methodology.

The audit report together with responses to any recommendations contained in the audit report should be submitted to the Department by **Friday 18th December 2015**.

Should you have any enquiries in relation to this matter, please contact Scott Brooks on telephone 6575 3401.

Yours sincerely

Scott Brooks
Team Leader Compliance
25-9-2015
As Nominee for the Director-General

Attachment: Audit methodology

Audit methodology

The audit will need to address the following areas:

- Conditions of consent
  - All conditions of consent are to be audited
  - The condition numbers must be included in the report
  - Audit must be sequential (eg: all development consent requirements then EPL then Mining Lease)

- Management plans
  - The commitments in management plans have been implemented

- Requirements of other relevant environmental legislation (where specified by the consent)
  - Environmental Protection Licence conditions
  - Environmental aspects of the Mining Lease

- EA/EIS or SEE predictions and commitments
  - This will include but not be limited to items such as mining phase, dump height, landform, noise attenuation etc.

- Statement/s of commitments
  - The commitments made have been implemented/complied with.

- Monitoring results and trends
  - Including against regulatory limits and EA/EIS/SEE predictions

- Community complaints
  - Community complaints should be reviewed for any trends
  - Identifying the source of an established trend
  - Is additional monitoring required for identified trends?

- Regulatory action
  - Including any letters, penalty notices prosecutions etc
  - What was the outcome of that action?
  - What was committed to following the regulatory action? Was it completed?
  - Are recommendations required to prevent recurrence?

- Annual reviews
  - Annual reviews are to be reviewed to provide the auditor with information as a basis for recommendations regarding ongoing environmental improvement.
  - As far as possible the audit should verify the validity of the annual review

- Any other specific matters raised by relevant agencies or the Department
  - Ensure that all specific matters raised by relevant agencies or the Department are addressed

- Improvement opportunities
  - including opportunities to improve the environmental performance of the mine; and
  - opportunities to improve or update any strategy, plan or program required under the consent. This includes any suggestions to improve management plans.

Department of Industry
Resources & Energy

OUT15/24449
MCV13/425#9

Ms Brooke York
Anglo Coal (Drayton Management) Pty Ltd
PMB 9
MUSWELLBROOK NSW 2333

Dear Brooke,

Re: Drayton Independent Environmental Audit

The NSW Department of Industry - Division of Resources and Energy (DRE) acknowledges receipt of your correspondence dated 8 September 2015 regarding the proposed Drayton Independent Environmental Audit (IEA).

DRE advises that it would like key rehabilitation issues covered as part of the audit. These issues, it is suggested, include the following:

Audit Component - Desktop

- Is there a current Mining Operations Plan (MOP) in place and has it been approved by DRE?
- Has the MOP been prepared in consultation with the relevant agencies as outlined in the Project Approval?
- Is the rehabilitation strategy, as outlined in the MOP, consistent with the Project Approval in terms of progressive rehabilitation schedule and proposed final land use(s)?
- Has the rehabilitation objectives and completion criteria, as outlined in the MOP, been developed in accordance with the proposed final land(s) as outlined in the Project Approval?
- Has a rehabilitation monitoring program been developed and implemented to assess performance against the nominated objectives and completion criteria? – verified by reviewing monitoring reports and rehabilitation inspection records.
- Has a rehabilitation care and maintenance program been developed and implemented based on the outcomes of monitoring program? – verified by reviewing Annual Rehabilitation Programs or similar documentation.

Audit Component - Site Inspection

- Are mining operations 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.
- Is rehabilitation progress consistent with the approved MOP as verified by site plans and a site inspection? This should include an evaluation against

Resources & Energy – Environmental Sustainability Unit
PO Box 344 Hunter Region Mail Centre NSW 2310
516 High St MAITLAND NSW 2320
Tel: 02 4931 6590 **Fax:** 02 4931 6790 **Web:** www.resourcesandenergy.nsw.gov.au
ABN 72189919072

rehabilitation targets and whether the final landform is being developed in accordance with conceptual final landform in Project Approval.

- Based on a visual inspection, are there 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?

In addition to the above, the audit should note observations where rehabilitation procedures, practices and outcomes represent best industry practice.

If you have any queries, please contact the undersigned on 4931 6553.

John Trotter
Inspector Environment
Environmental Sustainability Unit
9 September 2015

Appendix D

Audit Protocol: Project Approval 06_0202 (as modified)

Appendix D Audit Protocol: Project Approval 06_0202 (as modified)

Reference	Requirement	Evidence	Audit Finding
Project Approval 06_0202			
SCHEDULE 2 ADMINISTRATIVE CONDITIONS			
Obligation to Minimise Harm to the Environment			
1	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 project.	On 10 January 2014 a significant diesel spill was identified on the site, constituting an environmental harm incident as per the definition afforded in the *Protection of the Environment Operations Act 1997*. This spill was contained onsite, and was subsequently remediated to the satisfaction of the EPA. Preventative mechanisms were also installed at the site of the diesel spill to prevent future reoccurrence of the same.	Non-compliant
Terms of Approval			
2	The Proponent shall carry out the project generally in accordance with the: (a) EA; (b) statement of commitments; (c) EA (Mod 1); (d) EA (Mod 2); and (e) conditions of this approval. *Note: The general layout of the project is shown in Appendix 2.*	Overall, the auditors found that the site is generally being managed in accordance with these requirements.	Compliant
3	If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency.	The audit did not require a finding to be made against this condition.	Not Triggered
4	The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of: (a) any reports, plans, programs, strategies or correspondence that are submitted in accordance with this approval; and (b) the implementation of any actions or measures contained in these reports, plans, programs, strategies or correspondence.	A review of site documentation confirmed that the site had complied with regulator feedback with regards to offset areas (particularly in relation to spontaneous combustion causing heating and vegetation die back in rehabilitation areas).	Compliant
4A	Within 3 months of any modification to this approval, the Proponent shall review and if necessary revise any strategies/plans/programs required under this approval which are relevant to the modification to the satisfaction of the Director-General.	The auditors sighted email correspondence with the Department of Planning showing that relevant management plans were updated in response to the latest submission, and that this was done either within three months of the modification, or otherwise as agreed with an extension of time approved by the Department.	Compliant
Limits on Approval			
5	Mining operations may take place on the site until 31 December 2017. *Note: Under this approval, the Proponent is required to rehabilitate the site and provide offsets to the satisfaction of the Director-General. Consequently, this approval will continue to apply in all other respects other than the right to conduct mining operations until the site has been rehabilitated and the offset provided to a satisfactory standard.*	The audit did not require a finding to be made against this condition.	Not Triggered
6	The Proponent shall not extract or process more than 8 million tonnes of ROM coal a year on site.	This has not been exceeded during the audit period (it has been more in the realm of about 4.5 and 5 per annum).	Compliant
7	The Proponent shall only transport coal from the site by rail or overland conveyor.	Overland conveyor has been decommissioned and so all coal is now transported offsite by rail.	Compliant
Terms of Approval			
8	Within 12 months of this approval, the Proponent shall surrender all previous development consents for the Drayton coal mine to the satisfaction of the Director General.	This has not been required during the audit period.	Not Triggered
Staged Submission of Management Plans/Monitoring Programs			
9	With the approval of the Director-General, the Proponent may submit any management plan or monitoring program required by this approval on a progressive basis.	The audit did not require a finding to be made against this condition.	Not Triggered
Structural Adequacy			
10	The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA. *Notes:* *· Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.* *· Part 8 of the EP&A Regulation sets out the requirements for the certification of development.*	This has not been required during the audit period.	Not Triggered
Demolition			
11	The Proponent shall ensure that all demolition work is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.	This has not been required during the audit period.	Not Triggered
Operation of Plant and Equipment			
12	The Proponent shall ensure that all plant and equipment used at the site is: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	The auditors saw evidence of plant and equipment being subject to work orders for both scheduled maintenance and ad hoc repairs under the Elipse SQL system. Overall, plant and equipment at the site appeared to be maintained and operated in good working order during the site visit.	Compliant
Planning Agreement			
13	Within 12 months of this approval, the Proponent shall enter into a planning agreement with Council and the Minister, in accordance with: (a) Division 6 of Part 4 of the EP&A Act; and (b) the terms of the Proponent's offer to the Council on 19 January 2007, which includes the matters set out in Appendix 4.	This has not been required during the audit period.	Not Triggered

SCHEDULE 3 SPECIFIC ENVIRONMENTAL CONDITIONS

NOISE

Noise Impact Assessment Criteria

1	The Proponent shall ensure that the noise generated by the project does not exceed the noise impact assessment criteria in Table 1 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land. *Table 1: Noise impact assessment criteria dB(A)* **Land Number** / **Day** $L_{Aeq(15\ min)}$ / **Evening** $L_{Aeq(15\ min)}$ / **Night** $L_{Aeq(15\ min)}$ / **Night** $L_{A1(1\ min)}$ 34: 35, 35, 36, 45 29: 35, 35, 36, 47 31: 35, 35, 37, 47 33, 86: 35, 35, 38, 45 32: 35, 35, 40, 47 71, 75: 35, 35, 41, 47 70: 35, 36, 41, 47 76: 35, 36, 42, 47 28: 35, 37, 40, 47 69: 35, 37, 41, 47 13: 36, 36, 35, 45 12: 36, 36, 36, 47 25: 36, 37, 37, 47 26: 36, 37, 38, 47 27: 36, 37, 39, 47 72: 36, 37, 42, 47 17: 37, 38, 36, 47 21, 22: 38, 38, 38, 45 18: 38, 39, 38, 47 20, 61: 39, 40, 39, 45 14: 40, 39, 38, 47 19: 40, 40, 39, 47 16: 41, 41, 39, 47 23: 35, 35, 35, 47 All other privately-owned land: 35, 35, 35, 45	No exceedances of these criteria have occurred during the audit period.	Compliant
	However, if the Proponent has a written negotiated noise agreement with any landowner of the land listed in Table 1, and a copy of this agreement has been forwarded to the Department and OEH, then the Proponent may exceed the noise limits in Table 1 in accordance with the negotiated noise agreement.	This was noted, however the audit did not require a finding to be made against this point.	Not Triggered
	Notes: *· For information on the numbering and identification of properties used in this approval, see Appendix 5.* *· To determine compliance with the LAeq(15 minute) noise limits, noise from the project is to be measured at the most affected point within the residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the project is impractical, the OEH may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.* *· To determine compliance with the LA1(1 minute) noise limits, noise from the project is to be measured at 1 metre from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the project is impractical, the OEH may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy).* *· The noise emission limits identified in the above table apply under meteorological conditions of:* *- wind speeds of up to 3 m/s at 10 metres above ground level; or* *- temperature inversion conditions of up to 3ºC/100m, and wind speeds of up to 2 m/s at 10 metres above ground level.*	This was noted, however the audit did not require a finding to be made against this point.	Not Triggered

Land Acquisition Criteria

2	If the noise generated by the project exceeds the criteria in Table 2 at any residence on privately owned land or on more than 25 percent of any privately-owned land, the Proponent shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 8-10 of Schedule 4. *Table 2: Land acquisition criteria dB(A)* **Land Number** / **Day/Evening/Night** $L_{Aeq(15min)}$ 12, 14, 16, 17, 18, 19, 23, 25, 26, 27, 28, 29, 31, 32, 69, 70, 71, 72, 75, 76: 42 All other private land owners not listed in Table 1, or on more than 25 percent of, any privately owned land: 40 *Note: Noise generated by the project is to be measured in accordance with the notes to Table 1.*	This has not occurred during the audit period.	Not Triggered

Cumulative Noise Criteria

3	The Proponent shall take all reasonable and feasible measures to ensure that the noise generated by the project combined with the noise generated by other mines does not exceed the following amenity criteria at any residence on privately-owned land or on more than 25 percent of any privately owned land: · LAeq(11 hour) 50 dB(A) – Day; · LAeq(4 hour) 45 dB(A) – Evening; · LAeq(9 hour) 40 dB(A) – Night.	No exceedances of these criteria have occurred during the audit period.	Compliant

4	If the noise generated by the project combined with the noise generated by other mines exceeds the following amenity criteria at any residence on privately owned-land or on more than 25 percent of any privately owned land, then upon receiving a written request from the landowner, the Proponent shall acquire the land on as equitable basis as possible with the relevant mines in accordance with the procedures in conditions 8-10 of Schedule 4: · LAeq(11 hour) 53 dB(A) – Day; · LAeq(4 hour) 48 dB(A) – Evening; · LAeq(9 hour) 43 dB(A) – Night. *Notes: The cumulative noise generated by the project combined with the noise generated by other mines is to be measured in accordance with the relevant procedures in the NSW Industrial Noise Policy.*	No exceedances of these criteria have occurred during the audit period.	Compliant
Noise Mitigation			
5	Within 12 months of this approval, unless otherwise agreed by the Director-General, the Proponent shall implement the noise mitigation measures outlined in Section 4.5 of the noise impact assessment, of the EA (see Appendix 6). *Note: Any request to vary the noise mitigation measures must be accompanied by a noise assessment that demonstrates that the proposed variation would not result in any increase of the noise levels as predicted in the EA.*	This has not occurred during the audit period.	Not Triggered
6	Upon receiving a written request from the owner of: · the following land: 14, 16, 19, 20, 21, 22, 28, 32, 33, 61, 69, 70, 71, 72, 75, 76, 86; or · any residence on privately-owned land where subsequent noise monitoring shows the noise generated by the project is greater than or equal to the relevant criteria in Table 3, the Proponent shall implement additional noise mitigation measures such as double glazing, insulation, and/or air conditioning at any residence on the land in consultation with the landowner. These additional mitigation measures must be reasonable and feasible. *Table 3: Land acquisition criteria dB(A)* $L_{Aeq(15min)}$ | *Land Number* 40 | 12, 17, 18, 23, 25, 26, 27, 29, 31 38 | All other private land owners	This has not occurred during the audit period.	Not Triggered
	If within 3 months of receiving this request from the landowner, the Proponent and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution.	This has not occurred during the audit period.	Not Triggered
	Within 3 months of this approval, the Proponent shall notify all applicable landowners that they are entitled to receive additional noise mitigation measures.	This has not occurred during the audit period.	Not Triggered
Continuous Improvement			
7	The Proponent shall: (a) implement all reasonable and feasible noise mitigation measures;	No exceedances of EPL and Project Approval noise limits were observed during the audit period.	Compliant
	(b) investigate ways to reduce the noise generated by the project, including maximum noise levels which may result in sleep disturbance; and	No exceedances of EPL and Project Approval noise limits were observed during the audit period, and the application of noise mitigation measures continues (as quoted in the 2012, 2013 and 2014 AEMRs).	Compliant
	(c) report on these investigations and the implementation and effectiveness of these measures in the AEMR.	This information has been outlined in Section 3.10 of the 2012 AEMR, Section 3.10 of the 2013 AEMR, and Section 3.11 of the 2014 AEMR	Compliant
Monitoring			
8	**Noise Management Plan** The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Director-General. This plan must:	The *Noise Management Plan* (AngloAmerican, May 2014) fulfils these requirements.	Compliant
	(a) be submitted to the Director-General by 31 October 2012 for approval;	The *Noise Management Plan* (AngloAmerican, May 2014) was revised in 2012 as per this requirement.	Compliant
	(b) describe the measures that would be implemented (including a real-time noise management system that employs both reactive and proactive mitigation measures) to ensure: · best management practice is being employed; · compliance with the relevant conditions of this approval;	Section 10 of the *Noise Management Plan* (AngloAmerican, May 2014) fulfils these requirements.	Compliant
	(c) describe the proposed noise management system in detail;	Section 10 of the *Noise Management Plan* (AngloAmerican, May 2014) fulfils these requirements.	Compliant
	(d) include a noise monitoring program that: · uses a combination of real-time and supplementary attended monitoring measures to evaluate the performance of the project; · adequately supports the proactive and reactive noise management system on site; · includes a protocol for determining exceedances of the relevant conditions in this approval; · evaluates and reports on the effectiveness of the noise management system on site; · provides for the annual validation of the noise model for the project; and	Sections 9 and 10 of the Noise Management Plan (AngloAmerican, May 2014) outline the noise monitoring, reactive management and exceedances protocol. Section 3.10 of the 2012 AEMR, Section 3.10 of the 2013 AEMR, and Section 3.11 of the 2014 AEMR outlines the effectiveness of these measures. However, no annual validation of the noise model is outlined in the AEMRs.	Administrative non-compliance
	(e) include a protocol that has been prepared in consultation with the owners of nearby mines (including the Mt Arthur mine) to minimise the cumulative noise impacts of the mines.	Section 11.2 of the *Noise Management Plan* (AngloAmerican, May 2014) fulfils this requirement.	Compliant

BLASTING AND VIBRATION			
Airblast Overpressure Criteria			
9	The Proponent shall ensure that the airblast overpressure level from blasting at the project does not exceed the criteria in Table 4 at any residence on privately-owned land. *Table 4: Airblast overpressure impact assessment criteria* **Airblast overpressure level (dB(Lin Peak))** / **Allowable exceedance** 115 / 5% of the total number of blasts over a period of 12 months 120 / 0%	No exceedances of these overblast criteria occurred during the audit period.	Compliant
Ground Vibration Impact Assessment Criteria			
10	The Proponent shall ensure that the ground vibration level from blasting at the project does not exceed the criteria in Table 5 at any residence on privately-owned land. *Table 5: Ground vibration impact assessment criteria* **Peak particle velocity (mm/s)** / **Allowable exceedance** 5 / 5% of the total number of blasts over a period of 12 months 10 / 0%	No exceedances of these ground vibration criteria occurred during the audit period.	Compliant
Blasting Hours			
11	The Proponent shall only carry out blasting on the site between 9am and 5pm Monday to Saturday (EST), and 9am to 6pm Monday to Saturday (DST) inclusive. No blasting is allowed on Sundays, public holidays, or at any other time without the written approval of OEH.	On 2 August 2013 at 9:57 pm, a shot was fired in the South Pit. This blast was fired outside approved blasting times due to an error in loading resulting in a non-inhibited product being loaded into reactive ground. Permission to fire outside approved blasting times was sought from the OEH and DP&E. No complaints were received as a result of the blast. A full incident investigation was subsequently undertaken and ten documented corrective actions were completed in consultation with the EPA.	Compliant
Blasting Frequency			
12	The Proponent may carry out a maximum of: (a) 2 blasts a day; and (b) 8 blasts a week, averaged over a 12 month period.	No exceedances of these blast criteria occurred during the audit period.	Compliant
Operating Conditions			
13	During mining operations, the Proponent shall: (a) implement best blasting practice to: · protect the safety of people and livestock in the area surrounding blasting operations; · protect public or private infrastructure/property in the area surrounding blasting operations from blasting damage; and · minimise the dust and fume emissions from blasting at the project; and	Audit interview with Drill and Blast Engineer and review of Engineering Fume Checklist, Pre-blast Checklist and Post-blast Checklist confirmed how these requirements are met.	Compliant
	(b) co-ordinate blasting on site with the blasting at the adjoining Mt Arthur coal mine to minimise the potential cumulative blasting impacts of the two mines,	Audit interview with Drill and Blast Engineer confirmed how this is coordinated with other coal mines in the region, particularly with Mt Arthur coal mine. Sentries are sometimes required to be posted on Mt Arthur land to manage areas of site during Drayton blast events.	Compliant
	to the satisfaction of the Director-General.	Section 3.9 of the 2012 and 2013 AEMRs, and Section 3.10 of the 2014 AEMR fulfil these requirements.	Compliant
14	The Proponent shall not undertake blasting within 500 metres of: (a) Thomas Mitchell Drive without the approval of Council; and (b) any privately-owned land or land not owned by the Proponent, unless suitable arrangements have been made with the landowner and any tenants to minimise the risk of flyrock-related impact to the property to the satisfaction of the Director-General.	Such approval was obtained prior to the current auditing period. No privately owned land is located within 500 metres of such blasting activities.	Compliant
Road Closure			
15	*Deleted*	This condition was deleted in the 2012 modification and an audit finding is not required.	Not Triggered
Public Notice			
16	During mining operations, the Proponent shall: (a) notify the landowner/occupier of any residence within 2 kilometres of the site who registers an interest in being notified about the blasting schedule at the mine;	The site maintains a register of these landowners, who are notified of blasts that may affect them.	Compliant
	(b) operate a Blasting Hotline, or alternate system agreed to by the Director-General, to enable the public to get up-to-date information on the blasting schedule at the mine;	This was observed by the auditors during the audit.	Compliant
	(c) advertise the blasting hotline number in a local newspaper at least 4 times each year; and	This is done in the Muswellbrook Chronicle at least four times a year.	Compliant
	(d) publicise an updated blasting schedule on its website,	This was observed by the auditors during the audit.	Compliant
	to the satisfaction of the Director-General.	The auditors sighted evidence of the current Blasting Management and Monitoring Plan (AngloAmerican, March 2013, indicating that this is being undertaken to the satisfaction of the Director-General.	Compliant
Property Inspections			
17	Within 6 months of this approval, the Proponent shall advise all landowners of privately-owned land within 2 kilometres of the project that they are entitled to a structural property inspection.	This has not been required during the audit period.	Not Triggered

18	If the Proponent receives a written request for a structural property inspection from any of these land owners, the Proponent shall within 3 months of receiving this request: (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to inspect the condition of any building or structure on the land, and recommend measures to mitigate any potential blasting impacts; and (b) give the landowner a copy of the property inspection report.	This has not been required during the audit period.	Not Triggered
Property Investigations			
19	If any landowner of privately owned land within 2 kilometres of the site claims that buildings and/or structures on his/her land have been damaged as a result of blasting at the project, the Proponent shall within 3 months of receiving this claim: (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to investigate the claim; and (b) give the landowner a copy of the property investigation report.	Evidence of such inspections carried out at the landowners' request was cited by the auditors.	Compliant
	If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damages to the satisfaction of the Director-General. If the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Director-General for resolution. If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (see Appendix 10).	This has not occurred during the audit period.	Not Triggered
Blast Management Plan			
20	The Proponent shall prepare and implement a Blast Management Plan for the project to the satisfaction of the Director-General. This plan must:	The most up to date version of the Blast Management Plan provided to the auditors is Blasting Management and Monitoring Plan (AngloAmerican, March 2013). The auditors sighted email correspondence with the Department of Planning indicating that this plan was submitted and approved by the Department.	Compliant
	(a) be submitted to the Director-General for approval by 31 October 2012;	The most up to date version of the Blast Management Plan provided to the auditors is Blasting Management and Monitoring Plan (AngloAmerican, March 2013). The review history of this plan shows that a version was made in October 2012, and email correspondence was sighted with the Department of Planning showing that this version was submitted before 31 October 2012.	Compliant
	(b) describe the measures that would be implemented to ensure: · best management practice is being employed; · compliance with the relevant conditions of this approval;	Sections 5.6.6 to 5.3.13 of the Blasting Management and Monitoring Plan (Anglo Coal, April 2008) fulfil these requirements. No exceedances of blasting criteria have occurred during the audit period.	Compliant
	(c) include a road closure management plan for blasting within 500 metres of a public road, that has been prepared in consultation with the RTA and Council;	The *Road Closure Management Plan* (AngloAmerican, November 2013) fulfils these requirements.	Compliant
	(d) include a monitoring program for evaluating the performance of the project, including: · compliance with the applicable criteria · minimising the fume emissions from the site; and	Sections 5.3.5 and 5.6.6 of the *Blasting Management and Monitoring Plan* (Anglo Coal, April 2008) fulfil these requirements. However it is noted that fume management is not dealt with in detail within this plan: fume management is in fact dealt with in the *Blast Fume Management Plan* (AngloAmerican, February 2013), which appears to be up to date (unlike the Blast Management Plan).	Compliant
	(e) include a protocol that has been prepared in consultation with the owners of nearby mines (including the Mt Arthur mine) to minimise the cumulative blasting impacts of these mines and the project.	Sections 5.6.9, 5.6.11 and 5.6.12 of the *Blasting Management and Monitoring Plan* (Anglo Coal, April 2008) fulfil these requirements.	Compliant

AIR QUALITY

Impact Assessment Criteria

21	The Proponent shall ensure that the dust emissions generated by the project do not cause additional exceedances of the air quality impact assessment criteria listed in Tables 6, 7 and 8 at any residence, on privately-owned land, or on more than 25 percent of any privately-owned land. *Table 6: Long term impact assessment criteria for particulate matter* Pollutant: Total suspended particulate (TSP) matter — Averaging period: Annual — Criterion: 90 µg/m³ Pollutant: Particulate matter < 10 µm (PM_{10}) — Averaging period: Annual — Criterion: 30 µg/m³ *Table 7: Short term impact assessment criterion for particulate matter* Pollutant: Particulate matter < 10 µm (PM_{10}) — Averaging period: 24 hour — Criterion: 50 µg/m³ *Table 8: Long term impact assessment criteria for deposited dust* Pollutant: Deposited dust — Averaging period: Annual — Maximum increase in deposited dust level: 2 g/m²/month — Maximum total deposited dust level: 4 g/m²/month *Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.*	No exceedances of these criteria have occurred during the audit period.	Compliant

Land Acquisition Criteria

22	If the dust emissions generated by the project exceed the criteria in Tables 8, 9 and 10 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land, the Proponent shall, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in conditions 8-10 of Schedule 4. *Table 8: Long term land acquisition criteria for particulate matter* Pollutant: Total suspended particulate (TSP) matter — Averaging period: Annual — Criterion: 90 µg/m³ Pollutant: Particulate matter < 10 µm (PM_{10}) — Averaging period: Annual — Criterion: 30 µg/m³ *Table 9: Short term land acquisition criteria for particulate matter* Pollutant: Particulate matter < 10 µm (PM_{10}) — Averaging period: 24 hour — Criterion: 150 µg/m³ — Percentile[1]: 99[2] — Basis: Total[3] Pollutant: Particulate matter < 10 µm (PM_{10}) — Averaging period: 24 hour — Criterion: 50 µg/m³ — Percentile[1]: 98.6 — Basis: Increment[4] *Notes:* *[1]Based on the number of block 24 hour averages in an annual period.* *[2]Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Director-General in consultation with the DECC.* *[3]Background PM_{10} concentrations due to all other sources plus the incremental increase in PM_{10} concentrations due to the mine alone.* *[4]Incremental increase in PM_{10} concentrations due to the mine alone.* *Table 10: Long term land acquisition criteria for deposited dust* Pollutant: Deposited dust — Averaging period: Annual — Maximum increase in deposited dust level: 2 g/m²/month — Maximum total deposited dust level: 4 g/m²/month *Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.*	This has not occurred during the audit period.	Not Triggered

Operating Conditions

23	The Proponent shall: (a) ensure any visible air pollution generated by the project is assessed regularly, and that mining operations are relocated, modified, and/or stopped as required to minimise air quality impacts on privately-owned land;	A review of documentation and interviews conducted by the auditors confirmed that the site continues to be managed according to these general requirements.	Compliant
	(b) ensure that the real-time air quality monitoring and meteorological monitoring data are assessed regularly, and that mining operations are relocated, modified and/or stopped as required to ensure compliance with the relevant air quality criteria; and	A review of documentation and interviews conducted by the auditors confirmed that the site continues to be managed according to these general requirements.	Compliant
	(c) implement all practicable measures to minimise the off-site odour and fume emissions generated by any spontaneous combustion on site,	A review of documentation and interviews conducted by the auditors confirmed that the site continues to be managed according to these general requirements.	Compliant
	to the satisfaction of the Director-General.	These matters are generally reported in the AEMRs.	Compliant

Spontaneous Combustion

24	The Proponent shall prepare and implement a Spontaneous Combustion Management Plan for the project to the satisfaction of the Director-General. This plan must:	The *Spontaneous Combustion Management Plan* (AngloAmerican, January 2012) fulfils these requirements.	Compliant
	(a) prepared in consultation with OEH and DRE by suitably qualified expert/s whose appointment/s have been approved by the Director-General; and	According to previous audits, the 2008 version of the Spontaneous Combustion Management Plan was found to comply with this requirement.	Compliant
	(b) submitted to the Director-General for approval within 6 months of this approval.	The *Spontaneous Combustion Management Plan* (AngloAmerican, January 2012) fulfils these requirements.	Compliant

Air Quality Management Plan			
25	The Proponent shall prepare and implement an Air Quality and Greenhouse Gas Management Plan for the project to the satisfaction of the Director-General. This plan must:	The *Air Quality Management and Monitoring Plan* (AngloAmerican, November 2013) and the *Greenhouse and Energy Efficiency Plan* (AngloCoal, May 2008) fulfil these requirements.	Compliant
	(a) be submitted to the Director-General by 31 October 2012 for approval;	The auditors sighted email correspondence with the Department of Planning showing that a previous version of the current Air Quality Management and Monitoring Plan (AngloAmerican, November 2013) was submitted to the Department prior to 31 October 2012.	Compliant
	(b) describe the measures that would be implemented (including a real-time air quality management system that employs both reactive and proactive mitigation measures) to ensure: · best management practice is being employed; · compliance with the relevant conditions of this approval;	Sections 4.9, 4.10, 4.12 and 4.15 of the *Air Quality Management and Monitoring Plan* (AngloAmerican, November 2013) fulfil these requirements.	Compliant
	(c) describe the proposed air quality management system;	The *Air Quality Management and Monitoring Plan* (AngloAmerican, November 2013) fulfils these requirements.	Compliant
	(d) include an air quality monitoring program that: · uses a combination of real-time monitors and supplementary monitors to evaluate the performance of the development; · adequately supports the proactive and reactive air quality management system; · includes PM2.5 monitoring (although this obligation may be satisfied by the regional air quality monitoring network if sufficient justification is provided); · evaluates and reports on the effectiveness of the air quality management system; · includes a protocol for determining any exceedances of the relevant conditions of this consent; and	Sections 4.10, 4.12 and 4.15 of the *Air Quality Management and Monitoring Plan* (AngloAmerican, November 2013) fulfil these requirements.	Compliant
	(e) include a protocol that has been prepared in consultation with the owners of nearby mines (including the Mt Arthur mine) to minimise the cumulative air quality impacts of the mines.	Sections 4.18 of the *Air Quality Management and Monitoring Plan* (AngloAmerican, November 2013) fulfils these requirements.	Compliant
METEOROLOGICAL MONITORING			
26	During the life of the project, the Proponent shall ensure that there is a suitable meteorological station in the vicinity of the site that complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline.	During the current audit, the meteorological stations onsite were inspected and observed to be operating correctly. However the site was not able to provide relevant calibration records for one of the meteorological stations.	Administrative non-compliance
SURFACE AND GROUND WATER			
Surface Water Discharges			
27	The Proponent shall only discharge water from the site in accordance with the provisions of an EPL or the *Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002* .	This has not occurred during the audit period.	Not Triggered
Water Management Plan			
28	The Proponent shall prepare and implement a Site Water Management Plan for the project to the satisfaction of the Director-General. This plan must:	The *Water Management Plan* (Anglo Coal, November 2009) fulfils these requirements.	Compliant
	(a) be prepared in consultation with OEH and NOW by suitably qualified expert/s whose appointment/s have been approved by the Director-General;	The *Water Management Plan* (Anglo Coal, November 2009) fulfils these requirements.	Compliant
	(b) be submitted to the Director-General for approval within 6 months of this approval; and	The *Water Management Plan* (Anglo Coal, November 2009) fulfils these requirements.	Compliant
	(c) include: · a Site Water Balance; · an Erosion and Sediment Control Plan; · a Surface Water Monitoring Program; · a Ground Water Monitoring Program; and · a Surface and Ground Water Response Plan.	Sections 5.6.1, 5.6.2, 5.6.3, 5.6.4 and 5.6.5 of the *Water Management Plan* (Anglo Coal, November 2009) fulfil these requirements.	Compliant
Site Water Balance			
29	The Site Water Balance must: (a) include details of; · sources and security of water supply; · water use on site; · water management on site; · off-site water transfers; and	Sections 5.6.1.1, 5.6.1.2, 5.6.1.3, 5.6.1.4 and 5.6.1.5 of the *Water Management Plan* (Anglo Coal, November 2009) fulfil these requirements.	Compliant
	(b) investigate and describe measures to minimise water use by the project.	Section 5.6.1.5 of the *Water Management Plan* (Anglo Coal, November 2009) fulfils this requirement.	Compliant
Erosion and Sediment Control			
30	The Erosion and Sediment Control Plan must: (a) be consistent with the requirements of the Managing Urban Stormwater: Soils and Construction Manual (Landcom 2004, or its latest version);	The previous IEA confirmed that the *Water Management Plan* (Anglo Coal, November 2009) is not consistent with the requirements of Managing Urban Stormwater: Soils and Construction Manual (Landcom 2004, or its latest version). Given that the Water Management Plan has not been updated in the interim, it can be concluded that the Plan is still not compliant with these requirements.	Administrative non-compliance
	(b) identify activities that could cause soil erosion and generate sediment;	Section 5.6.2.1 of the *Water Management Plan* (Anglo Coal, November 2009) fulfils these requirements.	Compliant

	(c) describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters;	The previous IEA confirmed that the *Water Management Plan* (Anglo Coal, November 2009) did not comply with this requirement. Given that the Water Management Plan has not been updated in the interim, it can be concluded that the Plan is still not compliant with this requirement.	Administrative non-compliance
	(d) describe the location, function, and capacity of erosion and sediment control structures; and	The previous IEA confirmed that the *Water Management Plan* (Anglo Coal, November 2009) did not comply with this requirement. Given that the Water Management Plan has not been updated in the interim, it can be concluded that the Plan is still not compliant with this requirement.	Administrative non-compliance
	(e) describe what measures would be implemented to maintain the structures over time.	The previous IEA confirmed that the *Water Management Plan* (Anglo Coal, November 2009) did not comply with this requirement. Given that the Water Management Plan has not been updated in the interim, it can be concluded that the Plan is still not compliant with this requirement.	Administrative non-compliance
Surface Water Monitoring			
31	The Surface Water Management and Monitoring Plan must include: (a) detailed baseline data on surface water flows and quality in creeks and other waterbodies that could be affected by the project;	Section 5.6.3.1 of the *Water Management Plan* (Anglo Coal, November 2009) fulfils these requirements.	Compliant
	(b) surface water impact assessment criteria;	Section 5.6.3.2 of the *Water Management Plan* (Anglo Coal, November 2009) fulfils these requirements.	Compliant
	(c) a program to monitor the impact of the project on surface water flows and quality and downstream water users; and	Section 5.6.3 of the *Water Management Plan* (Anglo Coal, November 2009) fulfils these requirements.	Compliant
	(d) reporting procedures for the results of this monitoring.	Section 5.6.3.4 of the *Water Management Plan* (Anglo Coal, November 2009) fulfils these requirements.	Compliant
Groundwater Monitoring			
32	The Groundwater Monitoring Plan must include: (a) detailed baseline data of groundwater levels, yield and quality in the region (including privately owned groundwater bores within the predicted drawdown impact zone identified in the EA);	Section 5.6.4.1 of the *Water Management Plan* (Anglo Coal, November 2009) fulfils these requirements.	Compliant
	(b) a program to augment the baseline data over the life of the project	Section 5.6.4.2 of the *Water Management Plan* (Anglo Coal, November 2009) fulfils these requirements.	Compliant
	(c) groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts;	Section 5.6.4.3 of the *Water Management Plan* (Anglo Coal, November 2009) fulfils these requirements.	Compliant
	(d) a program to monitor: · regional groundwater levels and quality in the surrounding aquifers; · impacts on the groundwater supply of potentially affected landowners; · the volume of ground water seeping into the open cut mine workings; · the groundwater pressure response in the surrounding coal measures; · the seepage/leachate from any tailings dams, water storages or backfilled voids on site;	Section 5.6.4.4 of the *Water Management Plan* (Anglo Coal, November 2009) fulfils these requirements.	Compliant
	(e) procedures for the verification of the groundwater model; and	Section 5.6.4.5 of the *Water Management Plan* (Anglo Coal, November 2009) fulfils these requirements.	Compliant
	(f) reporting procedures for the results of the monitoring program and model verification.	Section 5.6.4.6 of the *Water Management Plan* (Anglo Coal, November 2009) fulfils these requirements.	Compliant
Surface and Ground Water Response Plan			
33	The Surface and Ground Water Response Plan must include: (a) a protocol for the investigation, notification and mitigation of any exceedances of the surface water and groundwater impact assessment criteria;	Section 5.6.5 of the *Water Management Plan* (Anglo Coal, November 2009) fulfils these requirements.	Compliant
	(b) measures to mitigate and/or compensate potentially affected landowners with privately owned groundwater bores within the predicted drawdown impact zone identified in the EA, including provision of alternative supply of water to the affected landowner that is equivalent to the loss attributed to the project;	Section 5.6.5.2 of the *Water Management Plan* (Anglo Coal, November 2009) fulfils these requirements.	Compliant
	(c) the procedures that would be followed if any unforeseen impacts are detected during the project.	Section 5.6.5.3 of the *Water Management Plan* (Anglo Coal, November 2009) fulfils these requirements.	Compliant
REHABILITATION AND LANDSCAPE MANAGEMENT			
Rehabilitation			
34	The Proponent shall progressively rehabilitate the site in a manner that is generally consistent with the final landform and proposed rehabilitation strategy in the EA (shown conceptually in Appendix 7) to the satisfaction of the DRE.	These requirements were confirmed during a review of the site's GIS system and a site visit conducted by the auditors.	Compliant
Offset Strategy			
35	The Proponent shall: (a) offset the following vegetation clearing of the project at a ratio of at least 2:1 to ensure there is a net improvement in the biodiversity value of the local area in the medium to long term: · 36 ha of Narrow-leaved Ironbark woodland; · 1 ha of Spotted Gum-Grey Box open forest woodland; and · 1.3 ha of Forest Red Gum open forest and woodland (Hunter Lowland Redgum Forest EEC); and · 6 ha of revegetated Yellow Box and Grey Gum woodland;	These requirements were confirmed during a review of the site's GIS system and a site visit conducted by the auditors.	Compliant
	(b) ensure that this offset is located in close proximity to the Natural Zone of the Drayton Wildlife Refuge (see Appendix 8); and	These requirements were confirmed during a review of the site's GIS system and a site visit conducted by the auditors.	Compliant
	(c) make suitable arrangements to protect this offset from development in the long term,	A review of documentation and the site visit conducted by the auditors confirmed that this is being undertaken.	Compliant
	to the satisfaction of the Director-General. *Note: This offset may include land that is currently part of the existing Grazing Zone of the Drayton Wildlife Refuge (see Appendix 8).*	Section 5 of the 2012, 2013 and 2014 AEMRs fulfils this requirement.	Compliant

35A	By the end of December 2009, the Proponent shall: (a) incorporate an offset of at least 12 hectares, generally consistent with the offset described in the 2009 EA, into the Drayton Wildlife Refuge; and	This has not been required during the audit period.	Not Triggered
	(b) establish mechanisms within the Offset Strategy for long-term conservation and management of this offset in accordance with condition 36.	This has not been required during the audit period.	Not Triggered
36	Within 6 months of this approval, the Proponent shall prepare an Offset Strategy for the project to the satisfaction of the Director-General. This strategy must:	This has not been required during the audit period.	Not Triggered
	(a) be prepared in consultation with the OEH;	This has occurred prior to the audit period.	Not Triggered
	(b) describe the measures that would be : · offset the specified vegetation clearing of the project: · ensure that adequate resources are dedicated towards the implementation of this offset; · demonstrate that the proposed offset is generally consistent with the principles in Appendix 9, and would result in a net improvement in the biodiversity value of the local area in the medium to long term; and · provide appropriate long term security for this offset.	The previous IEA made recommendations that resourcing and compliance with Appendix 9 be included in the Strategy. The Offset Strategy (AngloAmerican, 23 September 2015) now contains a statement that it complies with the Appendix 9, however there is no explanation of how the Strategy complies with Appendix 9. There is no additional explanation of resourcing.	Administrative non-compliance
Thomas Mitchell Drive Tree Screens			
37	Within 2 years of this approval, the Proponent shall plant additional trees along the Thomas Mitchell Drive corridor to provide a mature tree screen for the project. These trees must be planted in consultation with Council, and subsequently monitored to the satisfaction of the Director-General.	This has not been required during the audit period.	Compliant
Landscape Management Plan			
38	The Proponent shall prepare and implement a detailed Landscape Management Plan for the project to the satisfaction of the DRE and the Director-General and. This plan must:	The *Rehabilitation and Offset Management Plan* (AngloAmerican, October, 2013), the *Final Void Management Plan* (Anglo Coal, November 2008) and the *Mine Closure Plan* (Anglo Coal, January 2009) fulfil these requirements.	Compliant
	(a) be prepared in consultation with OEH, NOW and Council by suitably qualified expert/s whose appointment/s have been approved by the Director-General	The *Rehabilitation and Offset Management Plan* (AngloAmerican, October, 2013), the *Final Void Management Plan* (Anglo Coal, November 2008) and the *Mine Closure Plan* (Anglo Coal, January 2009) fulfil these requirements.	Compliant
	(b) be submitted to the Director-General for approval within 12 months of this approval; and	This has not occurred during the audit period.	Not Triggered
	(c) include a: · Rehabilitation and Offset Management Plan; · Final Void Management Plan; and · Mine Closure Plan. *Note: The Department accepts that the initial Landscape Management Plan may not include the detailed Final Void Management Plan and Mine Closure Plan. However, if this occurs, the Proponent will be required to seek approval from the Director-General for an alternative timetable for the completion and approval of the Final Void Management Plan and Mine Closure Plan.*	The *Rehabilitation and Offset Management Plan* (AngloAmerican, October, 2013), the *Final Void Management Plan* (Anglo Coal, November 2008) and the *Mine Closure Plan* (Anglo Coal, January 2009) fulfil these requirements.	Compliant
Rehabilitation and Offset Management Plan			
39	The Rehabilitation and Offset Management Plan must include: (a) the objectives for the rehabilitation of the site and provisions of the offset;	Section 4.9.1 of the *Rehabilitation and Offset Management Plan* (AngloAmerican, October, 2013) fulfils these requirements.	Compliant
	(b) a detailed description of how the rehabilitation of the site and implementation of the Offset Strategy would be integrated with the rehabilitation and Offset Strategy for the Mt Arthur North mine and remnant vegetation on Macquarie Generation's land, to ensure there is a comprehensive integrated strategy for the restoration and enhancement of the local landscape over time;	Section 4.8 of the *Rehabilitation and Offset Management Plan* (AngloAmerican, October, 2013) fulfils these requirements.	Compliant
	(c) a description of the short, medium, and long term measures that would be implemented to: · rehabilitate the site; · implement the Offset Strategy; · implement the Thomas Mitchell Drive Tree Screens; and · manage the remnant vegetation and habitat on the site; and	Sections 4.7.1 and 4.9 of the *Rehabilitation and Offset Management Plan* (AngloAmerican, October, 2013) fulfil these requirements.	Compliant
	(d) a detailed description of what measures would be implemented over the next 3 years to rehabilitate the site and implement the Offset Strategy and Thomas Mitchell Drive tree screens, including the procedures to be implemented for: · progressively rehabilitating areas disturbed by mining; · implementing revegetation and regeneration within the disturbance areas and offset areas, including establishment of canopy, sub-canopy (if relevant), understorey and ground strata; · managing the remnant vegetation and habitat on site; · managing impacts on fauna; · reducing the visual impacts of the project; · landscaping the site to minimise visual impacts; · protecting areas outside the disturbance areas conserving and reusing topsoil; · collecting and propagating seeds for rehabilitation works; · salvaging and reusing material from the site for habitat enhancement; · controlling weeds and feral pests; · controlling access; · bushfire management; and · managing any potential conflicts between the rehabilitation of the mine and Aboriginal cultural heritage;	The *Rehabilitation and Offset Management Plan* (AngloAmerican, October, 2013) fulfils these requirements.	Compliant
	(e) detailed performance and completion criteria for the rehabilitation of the site and implementation of the Offset Strategy and Thomas Mitchell Drive tree screens;	Section 4.13 of the *Rehabilitation and Offset Management Plan* (AngloAmerican, October, 2013) fulfils these requirements.	Compliant
	(f) a detailed description of how the performance of the rehabilitation of the site and implementation of the Offset Strategy and Thomas Mitchell Drive tree screens would be monitored over time to achieve the relevant objectives and completion criteria;	Section 4.14 of the *Rehabilitation and Offset Management Plan* (AngloAmerican, October, 2013) fulfils these requirements.	Compliant
	(g) a description of the potential risks to successful rehabilitation and/or revegetation, and a description of the contingency measures that would be implemented to mitigate these risks; and	Sections 4.9.9 and 4.9.10 of the *Rehabilitation and Offset Management Plan* (AngloAmerican, October, 2013) fulfil these requirements.	Compliant

	(h) details of who is responsible for monitoring, reviewing and implementing the plan. *Note: Reference to 'rehabilitation" in this approval includes all works associated with the rehabilitation and restoration of the site as described in the EA, and applies to all areas within the Mining Lease and Offsets Strategy.*	Section 4.1 of the *Rehabilitation and Offset Management Plan* (AngloAmerican, October, 2013) fulfils these requirements.	Compliant
39A	Within 6 months of the modification approval (06_0202 MOD 2) the Proponent shall review and update the Rehabilitation and Offset Management Plan referred to in Condition 39 with consideration of the Muswellbrook Shire Council Mining Rehabilitation Policy, in consultation with Council, DRE and to the satisfaction of the Director General.	Modification approval (06_0202 MOD 2) was granted on 17 February 2012. Email correspondence was sighted with the Department of Planning, showing that a previous version of the Rehabilitation and Offset Management Plan (AngloAmerican, October, 2013) was provided to the Department of Planning, DRE and MSC.	Compliant
Final Void Management			
40	The Final Void Management Plan must: (a) justify the planned final location and future use of the final voids;	The *Mining Operations Plan (1 July 2015 to 30 June 2020)* (Anglo Coal, 2015) will fulfil these requirements going forward.	Compliant
	(b) incorporate design criteria and specifications for the final voids based on verified groundwater modelling predictions and a re-assessment of post-mining groundwater equilibration;	The *Mining Operations Plan (1 July 2015 to 30 June 2020)* (Anglo Coal, 2015) will fulfil these requirements going forward.	Compliant
	(c) assess the potential interactions between creeks on the site and the final voids; and	The *Mining Operations Plan (1 July 2015 to 30 June 2020)* (Anglo Coal, 2015) will fulfil these requirements going forward.	Compliant
	(d) describe what actions and measures would be implemented to: · minimise any potential adverse impacts associated with the final voids; and · manage and monitor the potential impacts of the final voids over time.	The *Mining Operations Plan (1 July 2015 to 30 June 2020)* (Anglo Coal, 2015) will fulfil these requirements going forward.	Compliant
Mine Closure Plan			
41	The Mine Closure Plan must: (a) define the objectives and criteria for mine closure;	The *Mining Operations Plan* (1 July 2015 to 30 June 2020) (Anglo Coal, 2015) will fulfil these requirements going forward.	Compliant
	(b) investigate options for the future use of the site, including the final voids;	The *Mining Operations Plan* (1 July 2015 to 30 June 2020) (Anglo Coal, 2015) will fulfil these requirements going forward.	Compliant
	(c) investigate ways to minimise the adverse socio-economic effects associated with mine closure, including reduction in local employment levels;	The *Mining Operations Plan* (1 July 2015 to 30 June 2020) (Anglo Coal, 2015) will fulfil these requirements going forward.	Compliant
	(d) describe the measures that would be implemented to minimise or manage the ongoing environmental effects of the project; and	The *Mining Operations Plan* (1 July 2015 to 30 June 2020) (Anglo Coal, 2015) will fulfil these requirements going forward.	Compliant
	(e) describe how the performance of these measures would be monitored over time.	The *Mining Operations Plan* (1 July 2015 to 30 June 2020) (Anglo Coal, 2015) will fulfil these requirements going forward.	Compliant
41A	By 31 December 2012, the Proponent shall review the Rehabilitation and Offset Management Plan, Final Void Management Plan and Mine Closure Plan in consultation with Council and DRE and to the satisfaction of the Director General. This review must take Council's Mining Rehabilitation Policy into account.	The auditors sighted evidence of a previous version of the Rehabilitation and Offset Management Plan (AngloAmerican, October, 2013) being provided to the regulators on 16 August 2012. The review schedule Final Void Management Plan (Anglo Coal, November 2008) and the Mine Closure Plan (Anglo Coal, January 2009) have not strictly followed this schedule. However the drafting of the latest Mining Operations Plan 2015-2020 evidences a commitment to review and update these requirements in consultation with the regulators.	Compliant
Conservation and Biodiversity Bond			
42	Within 3 months of the approval of the Landscape Management Plan, the Applicant shall lodge a conservation and biodiversity bond with either DRE or the Department to ensure that the Offset Strategy is implemented in accordance with the performance and completion criteria of the Landscape Management Plan. The sum of the bond shall be determined by: (a) calculating the full cost of implementing the Offset Strategy; and (b) employing a suitably qualified quantity surveyor to verify the calculated costs. *Notes:* *· If the Offset Strategy is completed to the satisfaction of the Director-General, the DRE or the Department will release the conservation bond.* *· If the Offset Strategy is not completed to the satisfaction of the Director-General, all or part of the conservation bond will be used to ensure the satisfactory completion of the relevant works.* *· The conservation bond may be incorporated into rehabilitation bonding arrangements under the Mining Act 1993.*	This has not been required during the audit period.	Not Triggered

ABORIGINAL CULTURAL HERITAGE			
Aboriginal Heritage Plan			
43	The Proponent shall prepare and implement an Aboriginal Heritage Plan to the satisfaction of the Director-General. This plan must:	The *Aboriginal Cultural Heritage Management Plan* (Anglo Coal, October 2008) fulfils these requirements.	Compliant
	(a) be prepared in consultation with OEH and relevant Aboriginal communities;	The *Aboriginal Cultural Heritage Management Plan* (Anglo Coal, October 2008) fulfils these requirements.	Compliant
	(b) be submitted to the Director-General for approval within 6 months of this approval or prior to the disturbance of any Aboriginal object or site, whichever is the soonest; and	The *Aboriginal Cultural Heritage Management Plan* (Anglo Coal, October 2008) fulfils these requirements.	Compliant
	(c) include a: · detailed salvage program and management plan for all Aboriginal sites within the project disturbance area; · detailed description of the measures that would be implemented to protect Aboriginal sites outside the project disturbance area; · description of the measures that would be implemented if any new Aboriginal objects or skeletal remains are discovered during the project; and · protocol for the ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage on the site.	Sections 4.7.2, 4.7.6, 4.7.7 and 4.7.8 of the *Aboriginal Cultural Heritage Management Plan* (Anglo Coal, October 2008) fulfil these requirements.	Compliant
TRANSPORT			
Monitoring of Coal Transport			
44	The Proponent shall: (a) keep records of the: · amount of coal transported from the site each year; and · number of coal haulage train movements generated by the project (on a daily basis); · date and time of each train movement generated by the project; and	This rail activity data is provided in Appendix H of the AEMRs 2012, 2013 and 2014. Examples of rail activity summaries going into further detail (e.g. date, time and weight of freight movements was also provided to the auditors.	Compliant
	(b) include these records in the AEMR.	This rail activity data is provided in Appendix H of the AEMRs 2012, 2013 and 2014. However it is noted that the time of each train movement is not provided in the AEMRs.	Administrative non-compliance
44A	By 31 June 2012, the Proponent shall contribute $50,000 to Council towards the Council's costs for a Route and Upgrade Assessment of Thomas Mitchell Drive.	This has not occurred during the audit period.	Not Triggered
VISUAL IMPACT			
45	The Proponent shall: (a) ensure that all external lighting associated with the development complies with *Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting* ,	No new buildings or infrastructure or new pits have been commissioned during this audit period and so this is no longer relevant to be verified again, and the previous IEA found the site to be in compliance with this requirement.	Compliant
	(b) take all practicable measures to mitigate off-site lighting impacts from the development; and	Section 3.11 of AEMRs 2012 and 2013, and Section 3.12 of AEMR 2014 fulfil these requirements.	Compliant
	(c) minimise the visual impacts of the development to the satisfaction of the Director-General,	Section 3.11 of AEMRs 2012 and 2013, and Section 3.12 of AEMR 2014 fulfil these requirements.	Compliant
	to the satisfaction of the Director-General.	Section 3.11 of AEMRs 2012 and 2013, and Section 3.12 of AEMR 2014 fulfil these requirements.	Compliant
GREENHOUSE & ENERGY EFFICIENCY			
46	The Proponent shall prepare and implement a Greenhouse and Energy Efficiency Plan for the project to the satisfaction of the Director-General. This plan must:	*Greenhouse and Energy Efficiency Plan* (AngloCoal, May 2008) fulfils these requirements.	Compliant
	(a) be prepared generally in accordance with the *Guidelines for Energy Savings Action Plans* (DEUS 2005, or its latest version);	Section 5.5 of the *Greenhouse and Energy Efficiency Plan* (AngloCoal, May 2008) confirms that the plan abides by these requirements.	Compliant
	(b) be submitted to the Director-General for approval within 6 months of the date of this approval;	The *Greenhouse and Energy Efficiency Plan* (AngloCoal, May 2008) fulfils these requirements.	Compliant
	(c) include a program to monitor greenhouse gas emissions and energy use generated by the project;	Sections 5.6.2 to 5.6.4 of the Greenhouse and Energy Efficiency Plan (AngloCoal, May 2008) fulfil these requirements.	Compliant
	(d) include a framework for investigating and implementing measures to reduce greenhouse gas emissions and energy use associated with the project; and	Section 5.6.6 of the *Greenhouse and Energy Efficiency Plan* (AngloCoal, May 2008) fulfils these requirements.	Compliant
	(e) describe how the performance of these measures would be monitored over time.	Sections 5.6.2 to 5.6.4 of the Greenhouse and Energy Efficiency Plan (AngloCoal, May 2008) fulfil these requirements.	Compliant
WASTE MINIMISATION			
47	The Proponent shall: (a) monitor the amount of waste generated by the project;	Section 2.6 of the 2012, 2013 and 2014 AEMRs fulfils this requirements.	Compliant
	(b) investigate ways to minimise waste generated by the project;	Section 2.6 of the 2012, 2013 and 2014 AEMRs fulfils this requirements.	Compliant
	(c) implement reasonable and feasible measures to minimise waste generated by the project;	Section 2.6 of the 2012, 2013 and 2014 AEMRs fulfils this requirements.	Compliant
	(d) ensure irrigation of treated wastewater is undertaken in accordance with OEH's *Environmental Guideline for the Utilisation of Treated Effluent*; and	A review of documentation and the site visit conducted by the auditors confirmed that the site continues to be managed according to these requirements.	Compliant
	(e) report on waste management and minimisation in the AEMR,	Section 2.6 of the 2012, 2013 and 2014 AEMRs fulfils this requirements.	Compliant
	to the satisfaction of the Director-General.	Section 2.6 of the 2012, 2013 and 2014 AEMRs fulfils this requirements.	Compliant

SCHEDULE 4 ADDITIONAL PROCEDURES			
NOTIFICATION OF LANDOWNERS			
1	Within 3 months of this approval, the Proponent shall notify the landowners of the land listed in Table 1 that they have the right to request an independent review of the impacts of the project in accordance with condition 3 of Schedule 4 if they believe the project is exceeding the relevant impact assessment criteria in this approval.	This has not occurred during the audit period.	Not Triggered
2	If the results of the monitoring required in Schedule 3 identify that the impacts of the project are greater than the relevant impact assessment criteria in Schedule 3, except where a negotiated agreement has been entered into in relation to that impact, then the Proponent shall notify the Director-General and the affected landowners and/or existing or future tenants (including tenants of mine owned properties) accordingly, and provide quarterly monitoring results to each of these parties until the results show that the project is complying with the criteria in Schedule 3.	This has not occurred during the audit period.	Not Triggered
INDEPENDENT REVIEW			
3	If a landowner considers the project to be exceeding the impact assessment criteria in Schedule 3 then he/she may ask the Director-General in writing for an independent review of the impacts of the project on his/her land.	This has not occurred during the audit period.	Not Triggered
	If the Director-General is satisfied that an independent review is warranted, the Proponent shall within 3 months of the Director-General's decision: (a) consult with the landowner to determine his/her concerns; (b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to conduct monitoring on the land to: · determine whether the project is complying with the relevant impact assessment criteria in Schedule 3; and · identify the source(s) and scale of any impact on the land, and the project's contribution to this impact; and (c) give the Director-General and landowner a copy of the independent review.	This has not occurred during the audit period.	Not Triggered
4	If the independent review determines that the project is complying with the relevant impact assessment criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.	This has not occurred during the audit period.	Not Triggered
5	If the independent review determines that the project is not complying with the relevant impact assessment criteria in Schedule 3, and that the project is primarily responsible for this noncompliance, then the Proponent shall: (a) take all reasonable and feasible measures, in consultation with the landowner, to ensure that the project complies with the relevant criteria; and (b) conduct further monitoring to determine whether these measures ensure compliance.	This has not occurred during the audit period.	Not Triggered
	If the additional monitoring referred to above subsequently determines that the project is complying with the relevant criteria in Schedule 3, or the Proponent and landowner enter into a negotiated agreement to allow these exceedances, then the Proponent may discontinue the independent review with the approval of the Director-General.	This has not occurred during the audit period.	Not Triggered
6	If the independent review determines that the relevant criteria in Schedule 3 are being exceeded, but that more than one mine is responsible for this non-compliance, then the Proponent shall, together with the relevant mine/s: (a) take all reasonable and feasible measures, in consultation with the landowner, to ensure that the relevant criteria are complied with; and (b) conduct further monitoring to determine whether these measures ensure compliance; or (c) secure a written agreement with the landowner and other relevant mines to allow exceedances of the criteria in Schedule 3.	This has not occurred during the audit period.	Not Triggered
	If the additional monitoring referred to above subsequently determines that the noise generated by the project combined with the noise generated by other mines is complying with the relevant criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.	This has not occurred during the audit period.	Not Triggered
7	If the landowner disputes the results of the independent review, either the Proponent or the landowner may refer the matter to the Director-General for resolution. If the matter cannot be resolved within 21 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process (see Appendix 10).	This has not occurred during the audit period.	Not Triggered

LAND ACQUISITION			
8	Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent shall make a binding written offer to the landowner based on: (a) the current market value of the landowner's interest in the property at the date of this written request, as if the property was unaffected by the project the subject of the project application, having regard to the: · existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and · presence of improvements on the property and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of the additional noise mitigation measures in conditions 5 and 6 of Schedule 3; (b) the reasonable costs associated with: · relocating within the Muswellbrook local government area, or to any other local government area determined by the Director-General; · obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is required; and (c) reasonable compensation for any disturbance caused by the land acquisition process.	This has not occurred during the audit period.	Not Triggered
	However, if at the end of this period, the Proponent and landowner cannot agree on the acquisition price of the land, and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Director-General for resolution. Upon receiving such a request, the Director-General shall request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer or Fellow of the Institute, to consider submissions from both parties, and determine a fair and reasonable acquisition price for the land, and/or terms upon which the land is to be acquired. Within 14 days of receiving the independent valuer's determination, the Proponent shall make a written offer to purchase the land at a price not less than the independent valuer's determination. If the landowner refuses to accept this offer within 6 months of the Proponent's offer, the Proponent's obligations to acquire the land shall cease, unless otherwise agreed by the Director-General.	This has not occurred during the audit period.	Not Triggered
9	The Proponent shall bear the costs of any valuation or survey assessment requested by the independent valuer, or the Director-General, and the costs of determination referred above.	This has not occurred during the audit period.	Not Triggered
10	If the Proponent and landowner agree that only part of the land shall be acquired, then the Proponent shall pay all reasonable costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of the plan at the Office of the Registrar-General.	This has not occurred during the audit period.	Not Triggered
SCHEDULE 5 ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING & REPORTING			
ENVIRONMENTAL MANAGEMENT STRATEGY			
1	The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. This strategy must be submitted to the Director-General within 6 months of this approval, and:	The *Environmental Management Strategy* (Anglo Coal, May 2010) fulfils these requirements.	Compliant
	(a) provide the strategic framework for environmental management of the project;	The *Environmental Management Strategy* (Anglo Coal, May 2010) fulfils these requirements.	Compliant
	(b) identify the statutory requirements that apply to the project;	Section 4 of the *Environmental Management Strategy* (Anglo Coal, May 2010) fulfils these requirements.	Compliant
	(c) describe in general how the environmental performance of the project would be monitored and managed;	Section 5 of the *Environmental Management Strategy* (Anglo Coal, May 2010) fulfils these requirements.	Compliant
	(d) describe the procedures that would be implemented to: · keep the local community and relevant agencies informed about the operation and environmental performance of the project; · receive, handle, respond to, and record complaints; · resolve any disputes that may arise during the course of the project; · respond to any non-compliance; · manage cumulative impacts; and · respond to emergencies; and	Sections 5.6.8, 5.6.6, 5.6.6, 5.6.9 and 5.6.11 of the Environmental Management Strategy (Anglo Coal, May 2010) set out these requirements. However it is noted that, due to the age of the Environmental Management Strategy, emergency and non-compliance response procedures cited in the EMS are not in keeping with current regulatory requirements, e.g. those for immediate notification to regulators in certain instances under the Protection of the Environment Operations Act 1997 and the Work Health and Safety legislative package. It is recommended that these references be updated within the EMS.	Compliant - Recommendation Made
	(e) describe the role, responsibility, authority, and accountability of all the key personnel involved in environmental management of the project.	Appendix 2 and Appendix 3 of the *Environmental Management Strategy* (Anglo Coal, May 2010) fulfil these requirements.	Compliant
ENVIRONMENTAL MONITORING PROGRAM			
2	The Proponent shall prepare and implement an Environmental Monitoring Program for the project to the satisfaction of the Director-General. This program must be submitted to the Director-General within 6 months of this approval, and consolidate the various monitoring requirements in Schedule 3 of this approval into a single document, and be submitted to the Director-General concurrently with the submission of the relevant monitoring programs/plans.	The Environmental Monitoring Program (AngloAmerican, July 2013) fulfils these requirements.	Compliant

REPORTING			
Incident Reporting			
3	Within 24 hours of detecting an exceedance of the limits/performance criteria in this approval or the occurrence of an incident that causes (or may cause) harm to the environment, the Proponent shall notify the Department and other relevant agencies of the exceedance/incident.	During the site visit, the auditors were advised that the site had discharged surface water in contravention of its EPL, as well as in contravention of Condition 27 of this Project Approval. This was not reported to the EPA or DP&E for the duration of time for which the auditors were onsite. On 10 January 2014 a significant diesel spill was identified on the site, constituting an environmental harm incident as per the definition afforded in the *Protection of the Environment Operations Act 1997*. However, the authorities were not notified of this on the same day, and the evidence indicates they were not advised until 13 January 2014.	Non-compliant
4	Within 6 days of notifying the Department and other relevant agencies of an exceedance/incident, the Proponent shall provide the Department and these agencies with a written report that: (a) describes the date, time, and nature of the exceedance/incident; (b) identifies the cause (or likely cause) of the exceedance/incident; (c) describes what action has been taken to date ; and (d) describes the proposed measures to address the exceedance/incident.	The resulting Diesel Spill Incident Report was provided to the EPA and Department of Planning on 20 January 2014, which is 7 days after the initial notification was made. However, the EPA requested this report in writing with a due date of 28 January 2014.	Compliant
Annual Reporting			
5	Within 12 months of this approval, and annually thereafter, the Proponent shall submit an AEMR to the Director-General and relevant agencies. This report must:	The AEMR 2012, 2013 and 2014 fulfil these requirements. Section 1 of AEMRs 2012, 2013 and 2014 confirms that these parties receive copies of the AEMR.	Compliant
	(a) identify the standards and performance measures that apply to the project;	The AEMRs 2012, 2013 and 2014 fulfil these requirements.	Compliant
	(b) describe the works carried out in the last 12 months;	Section 2 of the AEMRs 2012, 2013 and 2014 fulfil these requirements.	Compliant
	(c) describe the works that will be carried out in the next 12 months;	Section 6 of the AEMRs 2012, 2013 and 2014 fulfil these requirements.	Compliant
	(d) include a summary of the complaints received during the past year, and compare this to the complaints received in previous years;	Section 4.1 of the AEMRs 2012, 2013 and 2014 fulfil these requirements.	Compliant
	(e) include a summary of the monitoring results for the project during the past year;	Section 3 of the AEMRs 2012, 2013 and 2014 fulfil these requirements.	Compliant
	(f) include an analysis of these monitoring results against the relevant: · limits/criteria in this approval; · monitoring results from previous years; and · predictions in the EA;	Section 3 of the AEMRs 2012, 2013 and 2014 fulfil these requirements.	Compliant
	(g) identify any trends in the monitoring results over the life of the project;	Section 3 of the AEMRs 2012, 2013 and 2014 fulfil these requirements.	Compliant
	(h) identify and discuss any non-compliance during the previous year; and	Section 3 of the AEMRs 2012, 2013 and 2014 fulfil these requirements.	Compliant
	(i) describe what actions were, or are being, taken to ensure compliance.	Section 3 of the AEMRs 2012, 2013 and 2014 fulfil these requirements.	Compliant
INDEPENDENT ENVIRONMENTAL AUDIT			
6	Within 2 years of this approval, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:	The current audit fulfils these requirements.	Compliant
	(a) be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been endorsed by the Director-General;	The current audit fulfils these requirements.	Compliant
	(b) assess the environmental performance of the project, and its effects on the surrounding environment;	The current audit fulfils these requirements.	Compliant
	(c) assess whether the project is complying with the relevant standards, performance measures, and statutory requirements;	The current audit fulfils these requirements.	Compliant
	(d) review the adequacy of any strategy/plan/program required under this approval; and, if necessary,	The current audit fulfils these requirements.	Compliant
	(e) recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval.	The current audit fulfils these requirements.	Compliant
	Note: This audit team must be led by a suitably qualified auditor, and include experts in the field of noise, and mine rehabilitation and closure.	The current audit fulfils these requirements.	Compliant
7	Within 6 weeks of completing this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General with a response to any recommendations contained in the audit report.	The current audit fulfils these requirements.	Compliant
8	Within 3 months of submitting the audit report to the Director-General, the Proponent shall review and if necessary revise the: (a) strategies/plans/programs required under this consent; and (b) Conservation and Biodiversity Conservation Bond, to the satisfaction of the Director-General.	The auditors sighted email correspondence with the Department of Planning showing that management plans were reviewed subsequently to the 2012 IEA taking place.	Compliant
COMMUNITY CONSULTATIVE COMMITTEE			
9	The Proponent shall operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Director-General, in general accordance with the *Guideline for Establishing and Operating Community Consultative Committees for Mining Projects*.	Section 4.2 of the AEMRs 2012, 2013 and 2014 outlined the operation of the CCC for the relevant reporting periods. The CCC appears to have been operated according to these guidelines.	Compliant
ACCESS TO INFORMATION			
10	Within 3 months of the approval of any plan/strategy/program required under this approval (or any subsequent revision of these plans/strategies/programs), or the completion of the audits or AEMRs required under this approval, the Proponent shall: (a) provide a copy of the relevant document/s to the relevant agencies and CCC; and	CCC meeting minutes reference the provision of plans an AMERs to CCC members.	Compliant
	(b) put a copy of the relevant document/s on its website.	The auditors were not able to access all of this information on the Drayton website. Specifically, a copy of the 2012 AEMR and the *Environmental Management Strategy* (Anglo Coal, 2010) were not available on the Drayton website. A 2008 version of the Noise Management Plan was the only version available online, as well as a 2008 version of the Spontaneous Combustion Management Plan.	Administrative non-compliance

11	During the development, the Proponent shall: (a) include a copy of this approval, as may be modified from time to time, on its website;	A copy of this Project Approval was available on the Drayton website at the time of the audit.	Compliant
	(b) provide a full summary of monitoring results required under this approval on its website; and	This monitoring data was available on the Drayton website at the time of the audit.	Compliant
	(c) update these results on a regular basis (at least every 3 months).	This monitoring data was available on the Drayton website at the time of the audit.	Compliant
APPENDIX 3 STATEMENT OF COMMITMENTS			
Mining Operations			
1	The existing Development Consents as identified in Table 8 will be relinquished with a single Project Approval being sought for Drayton (with the exception of the Antiene Rail Spur Development Consent (DA 106-04-00) required to transport product coal to the Port of Newcastle).	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
2	Drayton will ensure that an appropriate development consent will remain in place over the West Pit area until MAC obtains an appropriate planning approval over the area.	Planning approval continues to be held over this land.	Compliant
Environmental Management & Monitoring			
3	The SHECMS will continue to be relied upon for environmental management, mitigation and monitoring at Drayton. The SHECMS will be revised to reflect the Project as required.	The *Environmental Monitoring Program* (AngloAmerican, July 2013) fulfils these requirements.	Compliant
4	An Environmental Monitoring Program (EMP) will be developed for the Project, in consultation with relevant regulators for approval by DoP, and will consolidate monitoring aspects associated with: · Air Quality; · Noise; and · Blasting.	The *Environmental Monitoring Program* (AngloAmerican, July 2013) fulfils these requirements.	Compliant
5	The following Management Plans will be prepared and/or revised and relied upon for the operation of Drayton (in consultation with relevant regulators to the approval of DoP): · Spontaneous Combustion Management Plan; · Water Management Plan; · Flora & Fauna Management Plan; · Rehabilitation & Landscape Management Plan (including Void Management); and · Aboriginal Archaeology & Cultural Heritage Management Plan.	The following management plans are not considered up to date according to this requirement: *Spontaneous Combustion Management Plan* (AngloAmerican, January 2012), *Water Management Plan* (Anglo Coal, November 2009), and the *Aboriginal Cultural Heritage Management Plan* (Anglo Coal, October 2008).	Administrative non-compliance
Air Quality			
6	Drayton will actively manage the dragline in the North Pit in accordance with the SHECMS, such that there is no visible dust encroaching on private residences when prevailing weather conditions are towards Antiene Estate.	Dust is generally being managed to an acceptable level by the site.	Compliant
7	Drayton will continue to monitor Scope 1 and Scope 2 greenhouse gas emissions and investigate ways to further reduce these emissions.	The site continues to monitor energy usage in this manner.	Compliant
Noise			
8	Drayton will implement the necessary noise control and management measures to ensure that the modelled noise outcome listed in Table 21 is not exceeded.	No exceedances of noise criteria have occurred during the audit period.	Compliant
9	Drayton will continue to manage the current noise monitoring program shown in Figure 7 and install a real-time noise monitor with audio link within Antiene Estate.	Section 10.3 of the *Noise Management Plan* (AngloAmerican, May 2014) fulfils this requirement.	Compliant
Water Resources			
10	Drayton will undertake a census of privately owned groundwater bores identified in Table 26 to ascertain their current usage and provide a baseline against which to compare any future impacts. In the event of interruption to water supply resulting from the Project, an alternative water supply will be provided.	This has not been required during the audit period.	Not Triggered
11	Drayton will obtain all necessary Water Access Licences for the Project from NOW.	The site continues to hold the relevant water licences.	Compliant
Flora & Fauna			
12	The Drayton Wildlife Refuge will remain in place to preserve flora and fauna and to provide an ecological offset for the Project, exceeding OEH's recommended minimum 2:1 offset ratio.	These requirements were confirmed during a review of the site's GIS system and a site visit conducted by the auditors.	Compliant
13	Drayton will proactively manage key areas of the Drayton Wildlife Refuge to enhance its ecological values.	The site visit conducted by the auditors confirmed that this area is fenced, including with signage delineating it as an Environmental Offset Area. This signage (dated September 2015) also indicated recent rabbit and wild dog control methods had been undertaken in the area.	Compliant
Spontaneous Combustion			
14	Drayton will continue to monitor spontaneous combustion and implement the mitigation and management techniques discussed in Section 9.3.4 and in the revised SCMP.	A review of documentation and the site visit conducted by the auditors confirmed that the site is generally complying with the requirements of the *Spontaneous Combustion Management Plan* (AngloAmerican, January 2012).	Compliant
Visual			
15	Dense tree planting will be undertaken along the northern edge of the EA Boundary on Thomas Mitchell Drive to create a visual screen within the initial Project years.	This tree screen was observed by the auditors during the site visit and was found to be in good condition.	Compliant
16	All visual and night light impacts will continue to be managed in accordance with the SHECMS.	The *Environmental Monitoring Program* (AngloAmerican, July 2013) does not contain any guidance on managing the visual impacts of the site. The only guidance provided in the *Environmental Management Strategy* (Anglo Coal, May 2010) is that the site is to report on the status of the Thomas Mitchell tree screen within its AEMR. No reference to night lighting impacts is currently made within any of the site's management plans. The AEMRs prepared during the audit do mention some measures that were implemented to manage night lighting impacts.	Compliant

Aboriginal Archaeology & Cultural Heritage			
17	Aboriginal heritage will continue to be managed in accordance with the revised Aboriginal Archaeology & Cultural Heritage Management Plan in consultation with the local Aboriginal community and OEH.	The site's Permit to Disturb Land Form does contain a requirement to consider the possible presence of Aboriginal heritage. It is also observed that the overall site induction information does not contain information about cultural heritage (Aboriginal or otherwise). No consultation with Aboriginal community stakeholders was reported during the AEMRs for the audit period. However, this was not necessarily required during the audit period, as no new Aboriginal cultural heritage deposits, skeletal remains, or salvage/disturbance activities took place. It is recommended that the site implement an inspection regime to confirm the condition of Aboriginal cultural heritage items remaining in-situ.	Compliant - Recommendation Made
Non-Aboriginal Heritage			
18	Non-Aboriginal heritage Sites 1, 3 and 4 identified in Section 9.8 will continue to be preserved and managed in accordance with the SHECMS. Site 5 identified in Table 32 will be physically barricaded to prevent accidental damage. Site 2 will be cleared prior to disturbance.	Section 13.1.3 of the AEMR 2012 reports that this physical barrier was put in place.	Compliant
Community			
19	Drayton will enter into a VPA with MSC in the terms of the offer made by Drayton and agreed in principle by MSC.	This has not been required during the audit period.	Not Triggered
20	Drayton will continue to facilitate the operation of the Drayton CCC.	Section 4.2 of the AEMRs 2012, 2013 and 2014 outlined the operation of the CCC for the relevant reporting periods.	Compliant
Reporting			
21	Drayton will prepare and submit to relevant regulatory departments an AEMR which will discuss monitoring results and include a discussion on predictions and commitments made within this EA.	The 2012, 2013 and 2014 AEMRs fulfil this requirement.	Compliant
Macquarie Generation			
22	Drayton Mine recognises Macquarie Generation's ultimate requirement for void space to deposit fly ash from its Power Stations. To this end Drayton will use its reasonable endeavours and will consult with Macquarie Generation with a view to cooperating with Macquarie Generation to: (a) secure planning approval for and the use by Macquarie Generation of the East Pit mine void which will be left at the end of mining by Drayton in the general location indicated in Figure 11 in the EA for the purpose of the disposal of fly ash; and (b) reach agreement on reasonable terms to implement arrangements for the extension of the Liddell Ash Dam or such other works as may be agreed between Drayton and Macquarie Generation to accommodate fly ash from the Liddell Power Station that cannot be disposed of by Macquarie Generation in its existing facilities during the period from 2010 until the completion of mining by Drayton.	This has not been required during the audit period.	Not Triggered
APPENDIX 4 GENERAL TERMS FOR THE PLANNING AGREEMENT			
1	<table><tr><th>Funding Area</th><th>Proponent Contribution</th><th>Funding Time Frame</th></tr><tr><td>Monetary Contribution – Community Enhancement Program</td><td>$500,000</td><td>- One instalment of $200,000 to be paid to Council when Project Approval is granted. - Second instalment of $300,000 to be paid to Council when the investment decision is made to spend the additional capital required to increase mine production to 8 Mtpa.</td></tr></table>	This has not been required during the audit period.	Not Triggered
APPENDIX 6: NOISE MITIGATION MEASURES			
1	The following noise control or management measures have been adopted by Anglo Coal as part of the Project and have been incorporated into the noise model and mine plan:		
	· Only one loading unit (excavator or front end loader) would work in the North Pit during the evening or night, primarily to minimise exposed truck movements associated with overburden or coal haulage from the North Pit;	The previous audit confirmed that this had been undertaken.	Compliant
	· North and East Pit overburden trucks would dump in shielded locations during the evening and night;	The previous audit confirmed that this had been undertaken.	Compliant
	· North Pit prestrip haul roads would be shielded by the pit walls or a berm in the direction of residences, at least during the evening and night;	The previous audit confirmed that this had been undertaken.	Compliant
	· Loading units within the North Pit prestrip area would be located in a shielded area below the natural surface during the evening and night;	The previous audit confirmed that this had been undertaken.	Compliant
	· The coal haul road from the South Pit would be realigned to the lowest possible elevation, with minimal long straight sections of road directly in line with a residence and effective shielding with earth berms along the sides of the road where possible;	This has not been required during the audit period.	Not Triggered
	· The proposed ROM stockpile south of the workshop would have a 5 m wall or equivalent berm on the northern side and returned along part of the eastern and western sides to minimise noise from the loader and trucks working on the stockpile;	This has not been required during the audit period.	Not Triggered
	· A 4 m berm and/or wall would be constructed along the eastern side of the coal haul road from the ROM stockpile to meet the existing ROM hopper wall, including returns along side roads to minimise the effect of gaps in the barrier;	This has not been required during the audit period.	Not Triggered
	· A sound power limit of 103 dBA each for the three new reclaimers and one ROM coal stacker;	This has not been required during the audit period.	Not Triggered

	· Steel sheeting would be installed on the northern face of the secondary crusher building after removal of the rotary breaker and installation of the new screen and crusher; and	While this has not been undertaking, Section 3.10 of the AEMR details how this has not been required due to noise exceedances not occurring.	Not Triggered
	· Upgraded exhaust mufflers on some trucks with the exception of the South Pit overburden fleet.	The previous audit confirmed that this had been undertaken.	Compliant

Appendix E

Audit Protocol: Development Application 106-04-00

Appendix E Audit Protocol: Development Application 106-04-00

Reference	Requirement	Evidence	Audit Finding
Development Application 106-04-00			
1 General			
1	There is an obligation on the Applicant to prevent and minimise harm to the environment throughout the life of the project. This requires that all practicable measures are to be taken to prevent and minimise harm that may result from the construction, operation and, where relevant, decommissioning of the development.	Overall the auditors considered that the land subject to this DA 106-04-00 was managed according to these general requirements during the audit period.	Compliant
1.1 Adherence to terms of DA, EIS, etc			
(a)	The development is to be carried out generally in accordance with development application No. 106-04-00, and the EIS dated March 2000, prepared by Umwelt (Australia) Pty Limited and certified in accordance with Section 78A(8) of the Act, and all other relevant documentation provided to DUAP, including:	A review of site records and the site visit conducted by the auditors confirmed that the site is generally being managed according to these requirements.	Compliant
(i)	additional information requested by the EPA and supplied by Umwelt (Australia Pty Limited) in a letter dated 15 June 2000; with the results of extended noise monitoring, in a letter dated 20 July 2000 and accompanying report titled "Response to EPA Submission of 5 July 2000".		
(ii)	Drayton Coal Pty Ltd Response to Summary of Submissions received from DUAP on 2 June 2000, prepared by Umwelt (Australia) Pty Ltd, August 2000. as may be modified by the conditions set out herein.	A review of site records and the site visit conducted by the auditors confirmed that the site is generally being managed according to these requirements.	Compliant
(b)	If, at any time, the Director-General is aware of environmental impacts from the proposal that pose serious environmental concerns due to the failure of environmental management measures in place to ameliorate the impacts, the Director-General may order the Applicant to cease the activities causing those impacts until those concerns have been addressed to the satisfaction of the Director-General.	This has not occurred during the audit period.	Not Triggered
(c)	If any licence conditions are breached the applicant shall comply with any modification to the work as specified by the relevant agency	This has not occurred during the audit period.	Not Triggered
	Note: This consent should be read in conjunction with the existing Muswellbrook Shire Council Drayton Mine Project consent issued on 25 September 1980.	This was noted, however a finding was not required to be made against this condition.	Not Triggered
1.2 Period of Approval/Project Commencement			
(i)	The approval for coal transport operations is for a period of 25 years from the date of this consent.	This was noted, however a finding was not required to be made against this condition.	Not Triggered
(ii)	At least two weeks prior to the commencement of operation or within such period as agreed by the Director-General, the Applicant shall submit for the approval of the Director-General a compliance report detailing compliance with all the relevant conditions that apply prior to the commencement of operation.	This has not occurred during the audit period.	Not Triggered
(iii)	Date of commencement of operation is to be notified in writing to the Director-General, and MSC, at least two weeks prior to commencement of operation.	This has not occurred during the audit period.	Not Triggered
1.3 Dispute Resolution			
	In the event that the Applicant, MSC or a Government agency, other than the Department of Urban Affairs and Planning, cannot agree on the specification or requirements applicable under this consent, the matter shall be referred by either party to the DirectorGeneral or if not resolved, whose determination of the disagreement shall be final and binding on the parties.	This has not occurred during the audit period.	Not Triggered
2. Land and Site Environmental Management			
2.1 Environmental Coordinator			
(a)	The Environmental Coordinator(s) employed by Drayton mine:	The previous audit recommended that Drayton Coal should revise the Environmental Coordinator's position description to include the authority to cease work activities that may cause adverse environmental impact, or require any other reasonable steps to be taken to avoid or minimise unintended or adverse environmental impact. This position description has not been updated since prior to the previous IEA.	Administrative non-compliance
(i)	shall be responsible for the preparation of the environmental management plans required by this consent (refer Condition 2.2);		
(ii)	shall be responsible for considering and advising on matters specified in the conditions of this consent and compliance with such matters;		
(iii)	shall be responsible for receiving and responding to complaints in accordance with Condition 9.2(a); and		
(v)	shall have the authority and independence to require reasonable steps to be taken to avoid or minimise unintended or adverse environmental impacts and failing the effectiveness of such steps, to stop work immediately if an adverse impact on the environment is likely to occur.		
(b)	The Applicant shall notify the Director-General, DMR, EPA, DLWC, MSC, and the CCC (refer condition 9.1) of any changes to the name and/or contact details of the Environmental Co-ordinator(s). Any new appointment of an Environmental Coordinator(s) is to receive prior approval of the Director-General.	This has not occurred during the audit period.	Not Triggered
2.2 Environmental Management Strategies and Plans			
(a)	The Applicant shall prepare an Environmental Management Strategy providing a strategic context for the environmental management plans [refer condition 2.2(d)]. The Environmental Management Strategy shall be prepared in consultation with the relevant authorities and the Community Consultative Committee (refer condition 9.1) and to the satisfaction of the Director-General, prior to commencement of operations. The Strategy shall be provided to the Director-General no later than the time the first Environmental Management Plan under sub clause (d) below is submitted.	The previous audit found the *Environmental Management Strategy* (Anglo Coal, May 2010) to comply with these requirements.	Compliant

	The Environmental Management Strategy shall include, but not be limited to:		
(i)	statutory and other obligations which the Applicant is required to fulfil during operation, including all approvals and consultations and agreements required from authorities and other stakeholders, and key legislation and policies;	Section 5.6.2 of the *Environmental Management Strategy* (Anglo Coal, May 2010) fulfils these requirements.	Compliant
(ii)	definition of the role, responsibility, authority, accountability and reporting of personnel relevant to environmental management, including the Environmental Officer;	Section 5.1 of the *Environmental Management Strategy* (Anglo Coal, May 2010) fulfils these requirements.	Compliant
(iii)	overall environmental management objectives and performance outcomes, during, operation and decommissioning of the rail loop and Antiene rail spur, for each of the key environmental elements for which management plans are required under this consent;	The previous audit recommended that the EMS be revised to include a clearer reference to the consent. This would include providing performance outcomes during operation and decommissioning of the loop and spur, improving Table 4 to include reference to the consent, and including the environmental management plans applicable to the loop and spur. It does not appear that this has occurred.The EMS has not been updated to take into account these recommendations.	Administrative non-compliance
(iv)	overall ecological and community objectives for the project, and a strategy for the restoration and management of the areas affected by operations, including elements such as wetlands and other habitat areas, creek lines and drainage channels, within the context of those objectives;	The previous audit recommended that the EMS be revised to include ecological and community objectives for the rail loop and spur, and provide a strategy for the restoration and management of the areas affected by the rail loop and spur including elements such as wetlands and other habitat areas, creek lines and drainage channels, within the context of those objectives. It does not appear that this has occurred.The EMS has not been updated to take account of these recommendations. However, other management plans at the Site deal with these issues, including the ROMP, and the MOP.	Administrative non-compliance
(v)	identification of cumulative environmental impacts and procedures for dealing with these at each stage of the development;	Sections 5.6.8, 5.6.6, 5.6.6, 5.6.9 and 5.6.11 of the Environmental Management Strategy (Anglo Coal, May 2010) set out these requirements. However it is noted that, due to the age of the Environmental Management Strategy, emergency and non-compliance response procedures are not in keeping with current regulatory requirements, e.g. those for immediate notification to regulators in certain instances under the Protection of the Environment Operations Act 1997 and the Work Health and Safety legislative package. It is recommended that these references be updated.	Compliant - Recommendation Made
(vi)	overall objectives and strategies to protect economic productivity within the area affected by the operations;	The previous audit recommended that the EMS be revised to include overall objectives and strategies to protect economic productivity within the area affected by the operations. It does not appear that this has occurredThe EMS has not been updated to take account of these recommendations. However these issues are dealt with in the MOP.	Administrative non-compliance
(vii)	steps to be taken to ensure that all approvals, plans, and procedures are being complied with;	Section 5.6.9 of the *Environmental Management Strategy* (Anglo Coal, May 2010) fulfils these requirements.	Compliant
(viii)	processes for complaint handling, investigation and resolution in relation to the environmental management of the project;	Section 5.6.6 of the Environmental Management Strategy (Anglo Coal, May 2010) fulfils these requirements.	Compliant
(ix)	documentation of the results of consultations undertaken in the development of the Environmental Management Strategy.	The previous audit recommended that the EMS be revised to include a provision for all facets of consultation relating to the development of the EMS. It does not appear that this has occurred.The EMS has not been updated to take account of this recommendation. However ongoing consultation occurs with the CCC around EMS development and broader review and update of environmental management at the Site.	Administrative non-compliance
(x)	The Applicant shall make copies of the environmental management strategy available to MSC, EPA, DMR and the CCC within fourteen days of approval by the Director-General.	This has not been required during the audit period.	Not Triggered
(d)	The Applicant shall prepare the following environmental management plans for the Drayton rail loading facility: • Dust management plan (refer condition 5.1) • Noise management plan (refer condition 5.4.3(a)) • Water management plan (refer to condition 3.1) • Joint Acquisition Management Plan (refer to condition 10.3)	These plans have been prepared.	Compliant
(e)	The management plans are to be revised, and updated as necessary, at least every 5 years or as otherwise directed by the Director-General in consultation with the relevant government agencies. They will reflect changing environmental requirements or changes in technology/operational practices. Changes shall be made and approved in the same manner as the initial environmental management plan. The plans shall also be made publicly available at MSC within two weeks of approval of the relevant government authority	Two out of the four required management plans are compliant. However the latest version of the Water Management Plan is dated November 2009. The previous audit also confirmed that the Joint Acquisition Management Plan has not been updated since 2001, and there is no indication that it has been updated since that time (although it is noted that the other consent holder has relinquished their relevant consent). Therefore, these requirements have not been met for the Water Management Plan and the JAMP.	Administrative non-compliance
(f)	plans available to MSC, EPA, DMR and the CCC within fourteen days of approval by the Director-General.	The distribution lists for each environmental management plan indicate that this condition was complied with.	Compliant

2.3 Bushfire and other Fire Controls			
2.3	The Applicant shall maintain the existing fire protection works on site at Drayton rail loading facility, including the availability of trained personnel, water tankers and fire fighting equipment and annual hazard reduction measures with particular attention to boundaries of adjoining landholdings.	The site inspection conducted by the auditors confirmed that these requirements are being carried out, as does Sections 3.14 and 3.15 of the 2012 and 2013 AEMRs, and Sections 3.15 and 3.16 of the 2014 AEMR.	Compliant
3. Water Management and Monitoring			
3.1 Surface & Ground Water Management and Monitoring			
3.1	The Applicant shall:		
(a)	Prepare a site water management plan and monitoring system for the Drayton rail loading facility to include the revised coal transport operations in consultation with DLWC prior to commencement of operations, and to the satisfaction of the Director-General . The plan shall include but not be limited to the following matters:	The previous audit found that Water Management Procedure - Rail to fulfil these requirements.	Compliant
(i)	details of the integration of the revised coal transport operations with the existing Drayton mine water management plan and monitoring system.;		
(ii)	management of the quality and quantity of surface and groundwater within the areas covered by the Site Water Management Plan, which shall include preparation of monitoring programs;		
(iii)	management of stormwater and general surface runoff diversion to ensure separate effective management of clean and dirty water;		
(iv)	measures to prevent the quality of any surface waters being degraded due to the revised coal transport operations, below that identified in Table 2.5 of the EIS		
(v)	contingency plans for managing adverse impacts of the development on surface or ground water quality and quantity below that identified in Table 2.5 of the EIS;		
(vi)	identification of any possible adverse effects on water supply sources of surrounding land holders as a result of the revised coal transport operations, and implementation of mitigation measures as necessary; and		
(vii)	a program for reporting on the effectiveness of the water management systems and performance against objectives contained in the this water management plan.		
	Pollution of waters *Note: Except as may be expressly provided by a licence under the Protection of the Environment Operations Act 1997 in relation of the development, section 120 of the Protection of the Environment Operations Act 1997 must be complied with in connection with the carrying out of the development.*	No such discharges have occurred from this rail site during the audit period.	Compliant
4. Waste Management			
4	The applicant shall ensure that the waste management system, including the management of waste water, is maintained and applied to the proposed increase coal transport operations along the Drayton rail loop and Antiene rail spur as detailed in Section 5.2.5 of the EIS.	The site's overall waste management system deals with the rail system also.	Compliant
5. Noise and Air Quality Management and Monitoring			
5.1 Air Quality Management and Monitoring			
Dust Management Plan			
(a)	The Applicant shall, within 3 months of this consent, prepare a Dust Management Plan for the Drayton rail loading facility, detailing air quality safeguards and procedures for dealing with dust emissions to the satisfaction of the Director-General. The Plan shall be prepared in consultation with the owners of the Bayswater rail loading facilities with the aim of achieving a consistent approach in the preparation of the Dust Management Plans for the Drayton and Bayswater rail facilities respectively. The Plan shall include, but not be limited to, details of:	The *Air Quality Management and Monitoring Plan* (AngloAmerican, November 2013) fulfils these requirements.	Compliant
	the identification of dust affected properties and the relevant dust limits consistent with the EIS;		
	specifications of the procedures for the dust monitoring program for the purpose of undertaking independent dust investigations, including joint investigations with the owners of the Bayswater rail loading facility and rail loop where necessary;		
	outline the procedure to notify property owners and occupiers likely to be affected by dust from the operations;		
	the establishment of a protocol for handling dust complaints that include recording, reporting and acting on complaints;		
	appropriate mechanisms for community consultation;		
	outlining mitigation measures to be employed to minimise dust emissions;		
	equipment to be available and used to control dust generation;		
	methods to determine when and how operations are to be modified to minimise the potential for dust emissions if the relevant criteria are exceeded;		
	identification of longer term strategies directed towards mitigating dust levels that exceed the relevant EPA dust amenity criteria;		
	details of locations for dust monitoring and deposition gauges (including existing Drayton monitoring locations if proposed to be used.) at residential areas and frequency of monitoring, as agreed with the EPA;		
	a program to continue baseline monitoring undertaken prior to development consent; and		
	details of the integration of this plan with the Drayton mine dust management plan, and this plan's inter-relationship with the Bayswater rail facilities dust management plan.		

Air Quality and Dust Monitoring			
(b)	The Applicant shall:		
(a)	undertake monitoring at locations described in the Dust Management Plan (Condition 5.1(a));	This monitoring continues to be undertaken.	Compliant
(ii)	use existing relevant Drayton dust deposition and total suspended particulate (TSP) monitoring gauges for the Drayton Rail Loop and Antiene Rail Spur operations,including sites for monitoring impacts of dust at the nearest non-mined owned residences, and any additional locations as may be determined by the Dust Management Plan referred to in Condition 5.1(a); and	Air quality monitoring at the site continues to be undertaken according to these requirements.	Compliant
(iii)	provide all results and analysis of air quality monitoring in the AEMR including a determination of the annual dust deposition rate in gm/m2 /month, which shall be plotted in the AEMR.	The 2012, 2013 and 2014 AEMRs fulfil these requirements.	Compliant
(c)	Monitoring of dust deposition and the concentration of PM10 particulate matter in ambient air must be carried out at locations agreed to in consultation with the EPA. The sampling method, units of measure, interval and frequency of monitoring will be as set out in the "Approved Methods for Sampling and Analysis of Air Pollutants in NSW", or its latest version.	Air quality monitoring at the site continues to be undertaken according to these requirements.	Compliant
(d)	In the event that a landowner or occupier considers that dust from the project at their dwelling or over more than 25% of their vacant land is in excess of the relevant EPA dust amenity criteria, and the Director-General is satisfied that an investigation is required, the Applicant shall upon the receipt of a written request:	This has not occurred during the audit period.	Not Triggered
(i)	consult with the landowner or occupants affected to determine their concerns;	This has not occurred during the audit period.	Not Triggered
(ii)	make arrangements for and bear the cost of, in consultation with the owner of the Bayswater rail loading facility and rail loop, appropriate independent dust investigations in accordance with the Dust Management Plan, and to the satisfaction of the Director-General, to quantify the impact and determine the source of the effect;	This has not occurred during the audit period.	Not Triggered
(iii)	modify the operation in accordance with the Dust Management Plan if exceedances are demonstrated to result from the operation. This shall include: introduction of additional controls, either of dust generation from individual sources on the site or on site operations or modify operations, to ensure that the dust criteria are achieved; and / or, enter into an agreement with the landowner, or provide such forms of benefit or amelioration as may be agreed between the parties as providing acceptable amelioration/benefit for the dust levels experienced. The agreement may also be made in consultation with the owner of the Bayswater rail loading facility and rail loop and conduct follow up investigations to the satisfaction of the Director-General, where necessary. *Note: Vacant land in this condition means the whole of the lot in a current plan registered at the Land Titles Office as at the date of this consent that does not have a dwelling situated on the lot and is permitted to have a dwelling on that lot.*	This has not occurred during the audit period.	Not Triggered
(e)	If the independent dust investigations in sub-clause (e) above confirm that dust limits are in excess of the relevant EPA dust amenity criteria, the Applicant shall at the written request of the owner acquire the relevant property. Acquisition shall be in accordance with the procedures set out in Condition 10.1, 10.2 and 10.3.	This has not occurred during the audit period.	Not Triggered
(f)	Further independent investigations shall cease if the Director-General is satisfied that the relevant consent limits or relevant EPA dust amenity criteria are not being exceeded and are unlikely to be exceeded in the future.	This has not occurred during the audit period.	Not Triggered
5.2 Dust Suppression and Control			
5.2	Activities occurring at the premises must be carried out in a manner that will minimise emissions of dust from the premises.	A review of site records and the site visit conducted by the auditors confirmed that the site is generally meeting its obligations with regards to managing dust nuisance.	Compliant
5.3 Noise Control			
5.3.1 Noise Levels			
(a)	For three years from the date of this consent, the applicant shall cooperate with the relevant mining operators to limit the cumulative noise contributions from the operation of Drayton rail loop and Antiene rail spur such that these noise levels in conjunction with the total cumulative noise emissions from the operations of the Drayton coal mine, Bayswater rail loading facility and rail loop, Bayswater mine, Antiene rail spur, and proposed Mount Arthur North project if approved, do not exceed the dB(A) Leq(9 hour/4 hour/11 hour) noise limits in Table 1 at any non-mine owned dwellings (refer also condition 10.1). The applicant shall also ensure that the noise levels from the Drayton rail loop and Antiene rail spur alone shall not exceed the dB(A) Leq(15 minute) noise limits also shown in Table 1 for the first three years from the date of this consent.	This has not occurred during the audit period.	Not Triggered
	Table 1: Noise limits Night time (10pm-7am): 42 dB(A) $L_{eq(9\ hour)}$; 40 dB(A) $L_{eq(15\ minute)}$ Evening time (6pm-10pm): 42 dB(A) $L_{eq(4\ hour)}$; 40 dB(A) $L_{eq(15\ minute)}$ Day time (7am-6pm): 42 dB(A) $L_{eq(11\ hour)}$; 40 dB(A) $L_{eq(15\ minute)}$	This has not occurred during the audit period.	Not Triggered

<table>
<tr><td>(b)</td><td>After three years from the date of this consent, the applicant shall cooperate with the relevant mining operators to limit the cumulative noise contributions from the Drayton rail loop and Antiene rail spur such that these noise levels in conjunction with the total cumulative noise contributions from the operations of the Drayton coal mine, Bayswater rail loading facility and rail loop, Bayswater mine and the Antiene rail spur, and proposed Mount Arthur North project if approved, do not exceed the dB(A) Leq(9 hour/4 hour/11 hour) noise limits in Table 2 at any non-mine owned dwellings (refer also condition 10.1). The applicant shall also ensure that the noise levels from the Drayton rail loop and Antiene rail spur alone do not exceed the dB(A) Leq(15 minute) noise limits also shown in Table 2 after three years from the date of this consent.
Table 2: Noise limits
<table><tr><th>Night time</th><th>Evening Time</th><th>Day time</th></tr><tr><td>40 $L_{eq(9\ hour)}$ dB(A)</td><td>40 $L_{eq(4\ hour)}$ dB(A)</td><td>40 $L_{eq(11\ hour)}$ dB(A)</td></tr><tr><td>38 $L_{eq(15\ minute)}$ dB(A)</td><td>38 $L_{eq(15\ minute)}$ dB(A)</td><td>38 $L_{eq(15\ minute)}$ dB(A)</td></tr></table></td><td>Exceedances of these criteria have not occurred during the audit period.</td><td>Compliant</td></tr>
<tr><td>(c)</td><td>Notwithstanding condition 5.3.1 (b) above, the Director-General may otherwise agree to a request from the applicant to maintain the noise criteria of Table 1, provided that the DirectorGeneral is satisfied that the applicant can justify that it cannot achieve the noise criteria in Table 2 by:
providing full detail of whatever means are required to achieve the noise levels in Table 2, and a quantitative analysis of the cost effectiveness of such means to the satisfaction of the EPA; and
following the analysis at (i) above, the applicant is required to determine, to the satisfaction of the EPA, the best alternative mitigation measures that might not achieve the levels in Table 2, but are considered reasonable and feasible and will be put in place by the applicant.</td><td>This has not occurred during the audit period.</td><td>Not Triggered</td></tr>
<tr><td>(d)</td><td>Notwithstanding sub clauses (a), (b) and (c) above, the area of noise affectation for the cumulative operation of the Drayton rail loop, Antiene rail spur, Drayton coal mine, Bayswater rail loading facility and rail loop, Bayswater mine, Antiene rail spur, and proposed Mount Arthur North project if approved, is defined by demonstrated exceedance of noise levels at any non-mine owned dwellings of the dB(A) Leq(9 hour/4 hour/11 hour) noise limits shown in Table 3 below. The area of noise affectation for the Drayton rail loop and Antiene spur is defined by demonstrated exceedance of noise levels at any non-mine owned dwellings of the dB(A) Leq(15 minute) noise limits also shown in Table 3 below.
Table 3: Noise Affectation Criteria
<table><tr><th>Night Time</th><th>Evening Time</th><th>Day time</th></tr><tr><td>45 dB(A)$L_{eq(9hour)}$</td><td>45 dB(A)$L_{eq(4hour)}$</td><td>45 dB(A)$L_{eq(11hour)}$</td></tr><tr><td>43 dB(A)$L_{eq(15\ minute)}$</td><td>43 dB(A)$L_{eq(15\ minute)}$</td><td>43 dB(A)$L_{eq(15\ minute)}$</td></tr></table></td><td>This has not been required during the audit period.</td><td>Not Triggered</td></tr>
<tr><td>(e)</td><td>In the event that a landowner or occupier considers that noise from the project at their dwelling is in excess of:
the noise levels depicted in Table 1 within the first three years from the date of this
consent; or
the noise levels depicted in Table 2 after the first three years from the date of this consent (or as agreed by the Director-General); or
the noise levels depicted in Table 3; or
that a landowner considers that the noise levels depicted in Table 3 is being exceeded over more than 25% of their vacant land,
and the Director-General is satisfied that an investigation is required, the Applicant shall upon the receipt of a written request:</td><td>This has not occurred during the audit period.</td><td>Not Triggered</td></tr>
<tr><td>(i)</td><td>consult with the landowner or occupants affected to determine their concerns;</td><td>This has not occurred during the audit period.</td><td>Not Triggered</td></tr>
<tr><td>(ii)</td><td>make arrangements for and bear the costs of, in consultation with the owner's of Bayswater rail loading facility and rail loop, appropriate independent noise investigations in accordance with the noise management plan, and to the satisfaction of the Director-General, to quantify the impact and determine the source of the effect and contribution of the Drayton rail loop and Antiene rail spur;</td><td>This has not occurred during the audit period.</td><td>Not Triggered</td></tr>
<tr><td>(iii)
(iv)</td><td>modify the coal transportation activity in accordance with a noise reduction plan prepared as part of the noise management plan, if exceedances are demonstrated to result from the coal transportation activity. This shall include:
introduction of additional controls, either on noise emission from individual sources on the site or on site operations or modify operations, to ensure that the criteria in the Table 2 above are achieved;
with the agreement of the landowner, undertaking of noise control at the dwelling to achieve acceptable internal noise levels;
entering into an agreement with the owner of Bayswater rail loading facility and rail loop and the landowner, or provide such other forms of benefit or amelioration as may be agreed between the parties as providing acceptable amelioration/benefit for the noise levels experienced;
conduct follow up investigations to the satisfaction of the Director-General, where necessary.</td><td>This has not occurred during the audit period.</td><td>Not Triggered</td></tr>
<tr><td>(f)</td><td>If the independent noise investigations in sub-clause (e) above confirm that noise limits in Table 3 are being exceeded, the Applicant shall at the written request of the owner acquire the relevant property. Acquisition shall be in accordance with the procedures set out in Condition 10.2 and 10.3.</td><td>This has not occurred during the audit period.</td><td>Not Triggered</td></tr>
<tr><td>(g)</td><td>If continued complaints and noise investigations confirm that noise limits in Table 1 and/or 2 are being exceeded, but are less than the noise levels in Table 3, the Applicant shall continue to negotiate with the owner of the Bayswater rail loading facility and rail loop and the landowner until an acceptable resolution is reached.</td><td>This has not occurred during the audit period.</td><td>Not Triggered</td></tr>
<tr><td>(h)</td><td>Further independent investigations shall cease if the Director-General is satisfied that the relevant consent limits are not being exceeded and are unlikely to be exceeded in the future.</td><td>This has not occurred during the audit period.</td><td>Not Triggered</td></tr>
</table>

	Note: *1. The noise emission limits in this condition apply for adverse weather conditions.* *"Adverse" weather conditions means the presence of winds up to 3 metres per second, and/or temperature inversions for up to 4 degrees C per 100 metres.* *2. Vacant land in this condition means the whole of the lot in a current plan registered at the Land Titles Office as at the date of this consent that does not have a dwelling situated on the lot and is permitted to have a dwelling on that lot.*	This was noted, however the audit did not require a finding to be made against this note.	Not Triggered
5.3.2 Noise Management Plan			
(a)	The Applicant shall within three months of the date of this consent, prepare a Noise Management Plan for the Drayton rail loading facility and Antiene rail spur, to the satisfaction of the Director-General. The Plan shall be prepared in consultation with the owner of Bayswater rail loading facility with the aim of achieving a consistent approach in the preparation of the Drayton rail loading facility noise management plan. The Plan shall:	These requirements were not triggered during the audit period. The current plan is the *Noise Management Plan* (AngloAmerican, May 2014) which was approved by DP&E on 11/06/2014.	Compliant
	include details of the conduct of noise investigations at three monthly intervals (unless otherwise agreed by the Director-General) to evaluate, assess and report the both the L eq(15 minute) (project alone) and Leq(9 hour/4 hour/11 hour) (cumulative) noise emission levels due to normal coal transport operations under adverse weather conditions;	Section 10 of the Noise Management Plan (AngloAmerican, May 2014) fulfils these requirements.	Compliant
	details of the proposed methodologies including establishing the Drayton rail loop and Antiene rail spur operating configuration; determining survey intervals; weather conditions and seasonal variations; selecting variations, locations, periods and times of measurements;	Section 10 of the *Noise Management Plan* (AngloAmerican, May 2014) fulfils these requirements.	Compliant
	outline the design of any noise monitoring and noise modelling or other studies including the means for determining the noise levels emitted by the operations;	Section 10 of the *Noise Management Plan* (AngloAmerican, May 2014) fulfils these requirements.	Compliant
	particularly focus on the management of night time noise (10.00pm – 7.00am) for each year of operation;	Section 10 of the *Noise Management Plan* (AngloAmerican, May 2014) requires monthly attended noise monitoring during the evening and night time periods.	Compliant
	identify noise affected properties and the relevant noise limits consistent with the EIS, the additional noise information requested by the EPA and supplied by Umwelt (Australia Pty Limited) in a letter dated 15 June 2000; with results of extended noise monitoring and in a letter dated 20 July 2000 and accompanying report titled "Response to EPA Submission of 5 July 2000; and the Drayton Coal Pty Ltd; Response to Summary of Submissions received from DUAP on 2 June 2000, prepared by Umwelt (Australia) Pty Ltd, August 2000;	Section 7 and 10.2 of the *Noise Management Plan* (AngloAmerican, May 2014) fulfils these requirements.	Compliant
	specify the procedures for a noise monitoring program for the purpose of undertaking independent noise investigations, in consultation with the owners of Bayswater mine, as necessary;	Section 10 of the Noise Management Plan (AngloAmerican, May 2014) fulfils these requirements.	Compliant
	outline the procedure to notify property owners and occupiers likely to be affected by noise from the operations;	Section 11.2 of the Noise Management Plan (AngloAmerican, May 2014) details community complaints procedure.	Compliant
	establish a protocol for handling noise complaints that include recording, reporting and acting on complaints;	Section 11.2 of the *Noise Management Plan* (AngloAmerican, May 2014) fulfils these requirements.	Compliant
	record appropriate mechanisms for community consultation;	Section 11.2 of the *Noise Management Plan* (AngloAmerican, May 2014) details community complaints procedure.	Compliant
	outline mitigation measures to be employed on the site to limit noise emissions;	Section 11 of the *Noise Management Plan* (AngloAmerican, May 2014) fulfils these requirements.	Compliant
	identify longer term strategies directed towards mitigating noise levels that exceed the noise criteria in Table 2 under adverse meteorological conditions;	Section 11 of the *Noise Management Plan* (AngloAmerican, May 2014) fulfils these requirements.	Compliant
	outline measures to be used to reduce the impact of intermittent, low frequency and tonal noise (including any truck reversing alarms);	Section 11 of the *Noise Management Plan* (AngloAmerican, May 2014) fulfils these requirements.	Compliant
	specify measures to be taken to document any higher level of impacts or patterns of temperature inversions, and detail actions to quantify and ameliorate enhanced impacts if they lead to exceedance of the relevant noise criteria;	Sections 10.4 and 11.2 of the *Noise Management Plan* (AngloAmerican, May 2014) fulfil these requirements.	Compliant
	survey and investigate noise reduction measures, if required, from plant and equipment annually, subject to noise monitoring results and/or complaints received, and report in the AEMR at the conclusion of the first 12 months of operations and set targets for noise reduction taking into consideration valid noise complaints in the previous year. The Report shall also include remedial measures to achieve compliance with the specified noise goals; and	The 2012, 2013 and 2014 AEMRs fulfil these requirements.	Compliant
	include details of the integration of this plan with the existing Drayton mine Noise Management Plan, and its inter-relationship with the Bayswater rail facility noise management plan.	The current *Noise Management Plan* (AngloAmerican, May 2014) consolidates the plans required under the Approval and the Consent.	Compliant
(b)	Prior to the commencement of operations the applicant shall ensure cladding is added to the northern side of the Drayton Coal Handling Facility, extending from ground level to the top of the conical section of both loading bins, with an internal facing of absorbing material and vibration isolated from the existing structure as described in the EIS.	These requirements were not triggered during the audit period.	Not Triggered
(c)	The Applicant shall also:		
(i)	make copies of the Plans available to the EPA, MSC and CCC within fourteen days of approval, or as otherwise agreed to be the Director-General; and	This has not occurred during the audit period.	Not Triggered
(ii)	include a summary of noise monitoring results in the AEMR .	The 2012, 2013 and 2014 AEMRs fulfil these requirements.	Compliant

5.3.3 Noise Monitoring			
(a)	The levels of noise emitted from the premises must be monitored for 72 hrs every 3 months unless otherwise agreed by the Director-General at locations agreed to in consultation with the EPA. The monitoring must determine the LAeq,9hour, LAeq,15min, LA10,15min, LA90, 15min, and LA1,1min and include an assessment of the impact of operational noise on adjoining residents.	Attended noise monitoring is undertaken every month, with fortnightly supplementary monitoring and real time monitoring via BarnOwl undertaken 24 hours per day. However, not all parameters are recorded on monitoring reports.	Administrative non-compliance
(b)	Noise monitoring at the specified locations must be undertaken during daytime (7.00am-6.00pm), evening (6.00pm-10.00pm) and night time (10.00pm-7.00am).	Noise monitoring is undertaken in accordance with this requirement.	Compliant
5.4 Light Emissions			
5.4	The Applicant shall screen or direct all on-site lighting away from residences and roadways, or manage such lighting to the satisfaction of MSC.	Section 3.11 of AEMRs 2012 and 2013, and Section 3.12 of AEMR 2014 confirms these requirements are being met. Site inspection by the auditors did not identify any issues.	Compliant
6. Transport			
6.1 Limits on Transportation of Coal			
(a)	Coal transported along the Drayton Rail Loop is limited to seven (7) million tonnes per annum.	The 2012, 2013 and 2014 AEMRs report that coal transported along the Drayton Rail Loop was within these limits.	Compliant
(b)	Coal transported along the Antiene Rail Spur is limited to twenty (20) million tonnes per annum.	The 2012, 2013 and 2014 AEMRs report that coal transported along the Antiene Rail Spur exceeded these limits (maximum of approximately 1.8 Mtpa). It is noted that Mt Arthur Coal's new consent allows for a greater amount of coal transport (27 Mtpa).	Non-compliant
(c)	The peak number of train movements along the Drayton Rail Loop are limited to 12 per day.	The 2012, 2013 and 2014 AEMRs report that the peak number of train movements along the Drayton Rail Loop was within this limit.	Compliant
(d)	The peak number of train movements along the Antiene Rail Spur are limited to 30 per day.	The 2012, 2013 and 2014 AEMRs report that the peak number of train movements along the Antiene Rail Spur was within this limit.	Compliant
(e)	The maximum annual rate of coal haulage shall be calculated from the date of commencement of this consent. The Applicant shall submit a statement every six (6) months regarding the number of daily train movements, quantities and destination of product hauled on the Drayton rail loop and Antiene rail spur in that period to the DirectorGeneral unless otherwise agreed by the Director-General, commencing from the date of commencement of this consent.	The 2012, 2013 and 2014 AEMRs report that the coal haulage statements were submitted to DP&E as required.	Compliant
(f)	To ensure residents access on the northern side of Antiene Road is not restricted, the Applicant shall consult with RAC to ensure amendment of the RAC signal procedures manual is undertaken so that the signal located to the west of the level crossing near the junction of the Antiene rail spur and the Main Northern Railway (signal 60) is the priority signal for access to the Main Northern Railway as discussed in section 4.3.2.2 of the EIS.	The previous audit found that this condition had been complied with.	Compliant
	Note: Condition 6.1 shall be read in conjunction with condition 6.1 Limits on Transportation of Coal of the consent issued by the Minister for Urban Affairs and Planning to Coal Operations Australia Limited (COAL) for the construction and operation of the Bayswater Rail Loading Facility and Rail Loop. Condition 6.1 of the COAL consent is as follows: *(a) Coal transported along the Bayswater Rail Loop is limited to 13 million tonnes per annum during the simultaneous operation of the Drayton Rail Loop at 7 million tonnes per annum.* *(b) Coal transported along the Bayswater Rail Loop can only exceed 13 million tonnes per annum where the combined annual tonnage of operations along the Bayswater Rail Loop and Drayton Rail Loop do not exceed 20 million tonnes per annum.* *(c) The peak number of train movements along the Bayswater Rail Loop are limited to 18 per day, except in the event that Drayton mine does not utilise all of its 7 million tonnes per annum, the applicant may take up the spare capacity, with a total limit of 30 train movements per day along the Bayswater rail loop and Antiene rail spur.* *(d) The maximum annual rate of coal haulage shall be calculated from the date of commencement of rail haulage. The Applicant shall submit a statement every six (6) months regarding the quantities, number of daily train movements and destination of product hauled on Bayswater rail loop in that period to the Director-General unless otherwise agreed by the Director-General, commencing from the date of commencement of rail haulage.*	This was noted, however the audit did not require a finding to be made against this note.	Not Triggered
6.2 Road Transport			
6.2	No coal shall be hauled on public roads except under emergency or special situations and only with the prior written permission of the Director-General, RTA and MSC.	All coal is transported offsite by rail.	Compliant
6.3 Rail scheduling			
	Note: A commercial agreement is in place between the owners of the Bayswater and Drayton rail facility proposals respectively which requires the applicant to advise the owners of the Bayswater rail facility, no less than sixty (60) business days before the commencement of each year, of its proposed Estimated Annual Tonnage and its planned shipping schedule for coal haulage on the Antiene Spur. On the first business day of each month, the applicant will advise the owners of Bayswater mine of its planned shipping schedule for coal haulage for each of the then ensuing three months.	This was noted, however the audit did not require a finding to be made against this note.	Not Triggered

7. Monitoring/Auditing			
(a)	In addition to the requirements contained elsewhere in this consent, the Director-General may, at any time in consultation with the relevant government authorities and Applicant, require the monitoring programs in Conditions 3 and 5 to be revised/updated to reflect changing environmental requirements or changes in technology/operational practices. Changes shall be made and approved in the same manner as the initial monitoring programs. All monitoring programs shall also be made publicly available at MSC within two weeks of approval of the relevant government authority.	This has not been required during the audit period.	Not Triggered
(b)	All sampling strategies and protocols undertaken as part of any monitoring program shall include a quality assurance/quality control plan and shall require approval from the relevant regulatory agencies to ensure the effectiveness and quality of the monitoring program. Only laboratories with a nationally recognised relevant accreditation shall be used for laboratory analysis.	The previous audit recommended that the Environmental Monitoring Program be revised to include a quality assurance/quality control plan which is suitable for all monitoring undertaken on site. It is noted that the site commits to usinguses NATA accredited laboratories for all sampling analyses, and an SHE Calibration Procedure does exist for monitoring equipment. However tThere is no indication that a quality assurance system is implemented overall for monitoring/sampling works.	Administrative non-compliance
7.1 Third Party Monitoring/Auditing			
Independent Environmental Audit			
(a)	Every three years from the date of this consent until completion of coal transportation in the DA area, or as otherwise directed by the Director-General, the Applicant shall conduct an environmental audit of the Drayton Rail loop operation and Antiene rail spur operation in accordance with ISO 14010 - Guidelines and General Principles for Environmental Auditing, and ISO 14011 - Procedures for Environmental Auditing (or the current versions), and in accordance with any specifications required by the Director-General. The audit shall be co-ordinated as far as possible with the audit for the Bayswater rail loading facility and rail loop as directed by the Director-General. Copies of the report shall be submitted by the Applicant to the Director-General, MSC, EPA, DMR, and CCC within two weeks of the report's completion for comment.	The current audit fulfils these requirements.	Compliant
(b)	The audit shall:		
(i)	approvals;	The current audit fulfils these requirements.	Compliant
(ii)	assess the development against the predictions made in the EIS;	The current audit fulfils these requirements.	Compliant
(iii)	review the effectiveness of the environmental management of the coal transportation operations, including any mitigation works;	The current audit fulfils these requirements.	Compliant
(iv)	be carried out at the Applicant's expense; and	The current audit fulfils these requirements.	Compliant
(v)	be conducted by a duly qualified independent person or team approved by the Director-General in consultation with MSC.	The current audit fulfils these requirements.	Compliant
(c)	The Director-General may, after considering any submission made by the relevant government agencies, MSC and CCC on the report, notify the Applicant of any requirements with regard to any recommendations in the report. The Applicant shall comply with those reasonable requirements within such time as the Director-General may require.	The current audit fulfils these requirements.	Compliant
7.2 Meteorological			
7.2	The applicant shall utilise the existing meteorological station at Drayton mine or establish an alternative meteorological station at a relevant location, in accordance with the requirements of AS 2922 1987 "Ambient Air Guide for Siting of Sampling Units" or updated version. The meteorological station must be capable of recording wind direction and speed, temperature and sigma theta and be operated in accordance with the requirements of AS 2923-1987 "Ambient Air Guide Horizontal Wind for Air Quality Application", or subsequent relevant standards.	During the current audit, the meteorological stations onsite were inspected and observed to be operating correctly. However the site was not able to provide relevant calibration records for one of the meteorological stations.	Administrative non-compliance
8. Reporting			
8.1 Environmental Reporting			
Annual Environmental Management Report (AEMR)			
(a)	The Applicant shall, throughout the life of the rail loading facility and rail loop and for a period of at least three years after the completion of operations in the DA area, prepare and submit an Annual Environmental Management Report (AEMR), which may be incorporated into the existing Drayton AEMR to the satisfaction of the DirectorGeneral. The AEMR shall include a review of the performance of coal transportation against the Environmental Management Strategy, the conditions of this consent, and other licences and approvals relating to the coal transport operations. To enable ready comparison with the predictions of the EIS, diagrams and tables, the report shall include, but not be limited to, the following matters:	The 2012, 2013 and 2014 AEMRs fulfil these requirements.	Compliant
(i)	an annual compliance review of the performance of the project against conditions of this consent and statutory approvals;	The 2012, 2013 and 2014 AEMRs fulfil these requirements.	Compliant
(ii)	a review of the effectiveness of the environmental management of the coal transport operations in terms of EPA, DMR, and MSC requirements;	The 2012, 2013 and 2014 AEMRs fulfil these requirements.	Compliant
(iii)	results of all environmental monitoring required under this consent or other approvals, including interpretations and discussion by a suitably qualified person;	The 2012, 2013 and 2014 AEMRs fulfil these requirements.	Compliant
(iv)	identify trends in monitoring results over the life of coal transport operations;	The 2012, 2013 and 2014 AEMRs fulfil these requirements.	Compliant
(v)	a listing of any variations obtained to approvals applicable to the subject area during the previous year; and	The 2012, 2013 and 2014 AEMRs fulfil these requirements.	Compliant
(vi)	environmental management targets and strategies for the next year, taking into account identified trends in monitoring results.	The 2012, 2013 and 2014 AEMRs fulfil these requirements.	Compliant
(b)	In preparing the AEMR, the Applicant shall:		
(i)	respond to any request made by the Director-General for any additional requirements; and	The 2012, 2013 and 2014 AEMRs fulfil these requirements.	Compliant
(ii)	comply with any requirements of the Director-General or other relevant government agencies.	The 2012, 2013 and 2014 AEMRs fulfil these requirements.	Compliant
(iii)	ensure that the first report is completed and submitted within twelve months of this consent; or at a date determined by the Director-General in consultation with the DMR and the EPA; or in the next Drayton mine AEMR after the date of this consent.	This has not occurred during the audit period.	Not Triggered

9. Community Consultation/Obligations			
9.1 Community Consultative Committee			
(i)	The Applicant shall, at its own expense:		
(a)	provide to the existing Drayton Community Consultative Committee (CCC), or its equivalent, regular information on the progress of coal transport operations and monitoring results;	The auditors sighted CCC minutes referring to these matters.	Compliant
(b)	promptly provide to the Committee such other information as the Chair of the Committee may reasonably request concerning the environmental performance of the coal transport operations; and	This has not occurred during the audit period.	Not Triggered
(c)	provide access for site inspections by the Committee.	This was noted, however the audit did not require a finding to be made against this note.	Not Triggered
(ii)	The Applicant shall co-ordinate with Bayswater mine joint meetings of the Drayton and Bayswater CCCs, or their equivalents, on a basis to be agreed by the two CCCs, to discuss the management of the joint user rail facility.	The auditors sighted CCC meeting minutes. The previous audit found that CCC meetings had been consolidated with Mt Arthur joint venture.	Compliant
9.2 Community Consultation			
Complaints			
(a)	The environmental coordinator employed by Drayton mine (refer condition 2.1) shall be responsible:		
(i)	for recording complaints with respect to coal transport operations along the Drayton rail loop and Antiene rail spur in accordance with the existing Drayton mine complaints handling procedures, or its equivalent, including use of the 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 a response is provided to the complainant within 24 hours.	A review of the site's complaints records and site interviews conducted by the auditors confirmed that these requirements have been complied with.	Compliant
(ii)	for providing a report of complaints received with respect to the Drayton coal transportation operations every six months throughout the life of the project to the Director-General, MSC, EPA, DMR, and CCC, or as otherwise agreed by the Director-General. A summary of this report shall be included in the AEMR (condition 8.1(a)).	A review of site documentation confirmed that the complaints continue to be managed in this way.	Compliant
(iii)	consult with the environmental officer employed by the Bayswater mine to coordinate a response to any complaints received regarding the operation of the joint user rail facility .	This has not occurred during the audit period.	Not Triggered
10. Proponents Obligations			
10.1 Cumulative Impact Assessment			
(a)	In the event that the cumulative impact of noise or dust contributed by the operation of the Drayton rail loading facility, rail loop and Antiene rail spur and other nearby mining/industrial activities, including the Bayswater rail loop, Bayswater mine, Drayton mine, and Mount Arthur North Project if approved, at dwellings, or vacant land (as described in Condition 6.3.1(e)), in the vicinity of the operation, is in excess of the noise or dust criteria contained in these conditions of consent, the Applicant shall negotiate with the other mining companies appropriate arrangements to reasonably contribute to the management of the identified cumulative impacts to the satisfaction of the DirectorGeneral.	This has not occurred during the audit period.	Not Triggered
(b)	If it is identified from subclause (a) above that an industrial operator, other than a mining company, is the cause of an exceedance, the applicant shall provide a report to the Director-General the reasons for the cumulative criteria exceedances with demonstration that the applicant's activities are not the sole cause of the exceedances.	This has not occurred during the audit period.	Not Triggered
(c)	If agreement on appropriate contributions towards mitigation measures/ acquisition cannot be reached from negotiations undertaken in accordance with subclause (a), then the Director-General may appoint an independent panel to resolve the matter. The membership of the independent panel shall be as determined by the Director-General. The independent panel shall determine the responsibilities of each of the mining companies. The decision of the independent panel shall be final and binding on all parties. The responsibilities of the mining companies and the landowner as described in Condition 10.2 and 10.3 will apply.	This has not occurred during the audit period.	Not Triggered
(d)	Prior to the appointment of the independent panel, the applicant shall provide the Director-General a report detailing the applicant's reasons for being unable to get agreement with the other parties, and the reasons for the cumulative criteria exceedances with demonstration that the applicant's activities are not the sole cause of the exceedances.	This has not occurred during the audit period.	Not Triggered
10.2 Area of Affectation – Land Acquisition			
	Note: In Condition 10.2 (a)-(h) "land" means the whole of a lot in a current plan registered at the Land Titles Office as at the date of this consent.	This was noted, however the audit did not require a finding to be made against this note.	Not Triggered
(a)	The Applicant shall negotiate and purchase a property, as identified in conditions 5.1, 5.3 and/or 10.1, within six (6) months of a written request from the affected land owner.	This has not occurred during the audit period.	Not Triggered
(b)	In respect of a request to purchase land arising under this condition, the Applicant shall pay the owner the acquisition price which shall take into account and provide payment for:	This has not occurred during the audit period.	Not Triggered
(ii)	a sum not less than the current market value of the owner's interest in the land at the date of this consent, as if the land was unaffected by coal transport operations along the Drayton rail loop and Antiene rail spur the subject of this DA, having regard to:	This has not occurred during the audit period.	Not Triggered
	the existing use and permissible use of the land in accordance with the applicable planning instruments at the date of the written request; and	This has not occurred during the audit period.	Not Triggered
	the presence of improvements on the land and/or any Council approved building or structure which although substantially commenced at the date of request is completed subsequent to that date.	This has not occurred during the audit period.	Not Triggered
(ii)	the owner's reasonable compensation for disturbance allowance and relocation costs within the Muswellbrook or Singleton Local Government Area, or within such other location as may be determined by the Director-General in exceptional circumstances.	This has not occurred during the audit period.	Not Triggered
(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.	This has not occurred during the audit period.	Not Triggered

	Notwithstanding any other condition of this consent, the landowner and 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.	This has not occurred during the audit period.	Not Triggered
(d)	In the event that the Applicant and any owner referred to in this condition cannot agree within the time limit upon the acquisition price of the land and/or the terms upon which it is to be acquired, then:	This has not occurred during the audit period.	Not Triggered
(i)	either party may refer the matter to the Director-General, who shall request the President of the Australian Institute of Valuers and Land Economists to appoint a qualified independent valuer or Fellow of the Institute, who shall determine, after consideration of any submissions from the owners, a fair and reasonable acquisition price for the land as described in sub-clause (c) and/or terms upon which it is to be acquired;	This has not occurred during the audit period.	Not Triggered
(ii)	in the event of a dispute regarding outstanding matters that cannot be resolved, the independent valuer shall refer the matter to the Director-General, recommending the appointment of a qualified panel. The Director-General, if satisfied that there is need for a qualified panel, shall arrange for the constitution of the panel. The panel shall consist of: 1) the appointed independent valuer, 2) the Director-General or nominee, and 3) the President of the Law Society of NSW or nominee. The qualified panel shall determine a fair and reasonable acquisition price as described in sub-clause (c) above and/or the terms upon which the property is to be acquired.	This has not occurred during the audit period.	Not Triggered
(e)	The Applicant shall bear the costs of any valuation or survey assessment requested by the independent valuer, panel, or the Director-General and the costs of determination referred to in sub clauses (c) and (d).	This has not occurred during the audit period.	Not Triggered
(f)	Upon receipt of a determination pursuant to sub-clauses (c) and (d), 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 by the owner within six (6) months of the date of such offer, the Applicant's obligations to purchase the 23 property shall cease, unless otherwise agreed by the Director-General.	This has not occurred during the audit period.	Not Triggered
(g)	In the event that only part of the land is to be transferred to the Applicant, the Applicant shall pay all reasonable costs associated with obtaining Council approval to any plan of subdivision and registration of the plan at the Office of the Registrar-General.	This has not occurred during the audit period.	Not Triggered
(h)	The provisions of this condition do not apply to a land owner who is the holder of an authority under the Mining Act, 1992.	This was noted, however the audit did not require a finding to be made against this note.	Not Triggered
10.3 Joint Acquisition Management Plan			
10.3	The Applicant shall prior to commencement of the increased operations of the Drayton rail loop and Antiene rail spur, prepare a Joint Acquisition Management Plan with the owner of Bayswater rail loading facility and rail loop, to the satisfaction of the Director-General. The plan shall:	This has not been required during the audit period.	Not Triggered
10.3	Provide details of a joint approach to be adopted by the Applicant and the owner of the Bayswater rail loading facility and rail loop in regard to meeting the acquisition procedure requirements outlined in condition 10.2 of this consent relating to the cumulative impacts of the Drayton rail loop and Antiene rail spur, Drayton coal mine Bayswater rail loading facility and rail loop, Bayswater mine and the Mount Arthur North project if approved, should acquisition be required.	The previous audit found the relevant JAMP agreement to be compliant with these requirements.	Compliant
11. Further Approvals and Agreements			
11.1 Statutory Requirements			
(a)	The Applicant shall ensure that all statutory requirements including but not restricted to those set down by the Local Government Act 1993, Protection of the Environment Administration Act 1991, Protection of the Environment Operations Act 1997, and all other relevant legislation, Regulations, Australian Standards, Codes, Guidelines and Notices, Conditions, Directions, Notices and Requirements issued pursuant to statutory powers by the MSC, EPA, DLWC, DMR, and RAC, are fully met.	Overall the rail portion of the site appears to be operating according to these general requirements.	Compliant

Appendix F

Audit Protocol: Environment Protection Licence 1323

Appendix F Audit Protocol: Environment Protection Licence 1323

Reference	Requirement	Evidence	Audit Finding
Environment Protection Licence 1323 - Anglo Coal (Drayton Management) Pty Ltd			
1. ADMINISTRATIVE CONDITIONS			
A1 What the licence authorises and regulates			
A1.1	This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation. Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition. **Scheduled Activity** / **Fee Based Activity** / **Scale** Coal Works / Coal works / > 5000000 T handled Mining for Coal / Mining for coal / > 5000000 T produced	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
A2 Premises or plant to which this licence applies			
A2.1	The licence applies to the following premises: **Premises Details** DRAYTON COAL MINE THOMAS MITCHELL DRIVE MUSWELLBROOK NSW 2333 PREMISES BOUNDARY AS SHOWN ON DRAWING TITLED "EPA LICENCE AREA, PLAN NO ENV-0005 " DATED 12 MARCH2009.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
A3 Other activities			
A3.1	This licence applies to all other activities carried on at the premises, including: **Ancillary Activity** Extractive Industries - small gravel quarry Sewage Treatment System with a capacity <300 EP.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
A4 Information supplied to the EPA			
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.	A review of documentation and the site visit conducted by the auditors confirmed that the site continues to be managed according to these general requirements.	Compliant
2. DISCHARGES TO AIR AND WATER AND APPLICATIONS TO LAND			
P1 Location of monitoring/discharge points and areas			
P1.1	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. *Air* **EPA identification no.** / **Type of Monitoring Point** / **Type of Discharge Point** / **Location Description** 1 / Particulate monitoring (dust deposition network) / / At locations where dust deposition levels are representative of the levels experienced at residential properties, or other sensitive receivers, resulting from the operation of the mine. 2 / Total suspended particles (TSP) matter network / / At locations where the level of particulate matter being sampled is representative of emissions from the operation of the mine taking into account prevailing wind direction and the location of residential properties or other sensitive receivers. 4 / Particulate monitoring Particulate matter (PM10) / / At locations where the level of particulate matter being sampled is representative of emissions from the operation of the mine taking into account prevailing wind direction and the location of residential properties or other sensitive receivers	These points continue to be monitored.	Compliant
P1.2	The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.	These points continue to be monitored.	Compliant
P1.3	The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point. *Water and land* **EPA Identification no.** / **Type of Monitoring Point** / **Type of Discharge Point** / **Location Description** 3 / Discharge to utilisation area. Effluent volume monitoring. / Discharge to utilisation area. Effluent volume monitoring. / Utilisation area as shown on Drayton Coal Pty Ltd's Map No. ENV-0005, dated 12-MAR-2009.	These points continue to be monitored.	Compliant

<table>
<tr><td>P1.4</td><td>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 point.
Noise<table><tr><th>EPA identification no.</th><th>Type of monitoring point</th><th>Location description</th></tr><tr><td>5</td><td>Air blast overpressure & ground vibration peak particle velocity monitoring</td><td>Monitoring location identified as "Sharman" in the document titled: "Blast Monitoring Sites, Figure 11, Anglo American Drayton Mine, 21/03/2013"</td></tr><tr><td>6</td><td>Air blast overpressure & ground vibration peak particle velocity monitoring</td><td>Monitoring location identified as "De Boer" in the document titled: "Blast Monitoring Sites, Figure 11, Anglo American Drayton Mine, 21/03/2013"</td></tr><tr><td>7</td><td>Air blast overpressure & ground vibration peak particle velocity monitoring</td><td>Monitoring location identified as "Antiene" in the document titled: "Blast Monitoring Sites, Figure 11, Anglo American Drayton Mine, 21/03/2013"</td></tr></table></td><td>These points continue to be monitored.</td><td>Compliant</td></tr>
<tr><td colspan="4">3 LIMIT CONDITIONS</td></tr>
<tr><td colspan="4">L1 Pollution of waters</td></tr>
<tr><td>L1.1</td><td>Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.</td><td>On 10 January 2014 a significant diesel spill was identified on the site, constituting an environmental harm incident as per the definition afforded in the Protection of the Environment Operations Act 1997. The EPA considered this event to constitute a contravention of section 120 of the POEO Act. This spill was contained onsite, and was subsequently remediated to the satisfaction of the EPA. Preventative mechanisms were also installed at the site of the diesel spill to prevent future reoccurrence of the same.</td><td>Non-compliant</td></tr>
<tr><td colspan="4">L2 Volume and mass limits</td></tr>
<tr><td>L2.1</td><td>For each discharge point or utilisation area specified below (by a point number), the volume/mass of:
a) liquids discharged to water; or;
b) solids or liquids applied to the area;
must not exceed the volume/mass limit specified for that discharge point or area.<table><tr><th>Point</th><th>Unit of Measure</th><th>Volume/Mass Limit</th></tr><tr><td>3</td><td>kilolitres per day</td><td>140</td></tr></table></td><td>Discharge above this limit has not occurred during the audit period.</td><td>Compliant</td></tr>
</table>

L3 Noise limits

L3.1	Noise generated at the premises must not exceed the noise limits presented in the table below. The noise limits in the table below represent the noise contribution from the premises. Note: LAeq means the equivalent continuous noise level - the level equivalent to the energy average of noise levels occurring over a measurement period. Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sundays and Public Holidays. Evening is defined as the period of 6pm to 10pm. Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am on Sundays and Public Holidays. These limits do not apply if the licensee has an approved agreement with the relevant owner/s of these residences to generate higher noise levels. Land identification numbers refer to the document titled "Drayton Mine Project Approval Modification Environmental Assessment, Table 1 & Figure 4, prepared by Hansen Bailey for Anglo Coal (Drayton Management) Pty Limited and dated July 2009.	No exceedances of noise criteria have occurred during the audit period.	Compliant

Land	Day	Evening	Night	Night
Number	LAeq(15 minute)	LAeq(15 minute)	LAeq(15 minute)	LA1(1 minute)
12	36	36	36	47
13	36	36	35	45
14	40	39	38	47
16	41	41	39	47
17	37	38	36	47
18	38	39	38	47
19	40	40	39	47
20	39	40	39	45
21	38	38	38	45
22	38	38	38	45
23	35	35	35	47
25	36	37	37	47
26	36	37	38	47
27	36	37	39	47
28	35	37	40	47
29	35	35	36	47
31	35	35	37	47
32	35	35	40	47
33	35	35	38	45
34	35	35	36	45
35	35	35	35	45
37	35	35	35	45
42	35	35	35	45
61	39	40	39	45
69	35	37	41	47
70	35	36	41	47
71	35	35	41	47
72	36	37	42	47
75	35	35	41	47
76	35	36	42	47
86	35	35	38	45
All other privately owned land	35	35	35	45

L3.2	To determine compliance with the LAeq(15 minutes) noise limits in condition L3.1 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 shall be applied to the measured noise levels where applicable	The monthly noise monitoring reports do not specify the proximity from dwellings at which monitoring is undertaken. However the monitoring methodology has been found to be satisfactory by the DP&E and the EPA.	Compliant
L3.3	To determine compliance with the LA1(1 minute) conditions L3.1 noise from the premises is to be measured at 1m from the dwelling facade. 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 monthly noise monitoring reports do not specify the proximity from dwellings at which monitoring is undertaken. However the monitoring methodology has been found to be satisfactory by the DP&E and the EPA.	Compliant
L3.4	The Noise emission limits identified in condition L3.1 apply under metrological conditions of: - Wind speed up to 3m/s at 10 meters above ground level; or - Temperature inversion conditions of up to 3 degrees/100m and wind speed up to 2m/s at 10 meters above the ground.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered

L4 Blasting			
L4.1	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 5, 6 or 7 in Condition P1.4.	No exceedances of blasting criteria have occurred during the audit period.	Compliant
L4.2	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 5, 6 or 7 in Condition P1.4.	No exceedances of blasting criteria have occurred during the audit period.	Compliant
L4.3	The ground vibration peak particle velocity from blasting operations carried out in or on the premises must not exceed: 5 mm/second for more than 5% of the total number of blasts during each reporting period; at either monitoring point 5, 6 or 7 in Condition P1.4.	No exceedances of blasting criteria have occurred during the audit period.	Compliant
L4.4	The ground vibration peak particle velocity from blasting operations carried out in or on the premises must not exceed: 10 mm/second at any time; at either monitoring point 5, 6 or 7 in Condition P1.4.	No exceedances of blasting criteria have occurred during the audit period.	Compliant
L4.5	Blasting in or on the premises must only be carried out between 900 hours and 1700 hours, Monday to Saturday (Eastern Standard Time) and between 900 hours and 1800 Hours, Monday to Saturday(Daylight Saving Time). Blasting in or on the premises must not take place on Sundays or Public Holidays without the prior approval of the EPA.	No exceedances of blasting criteria have occurred during the audit period.	Compliant
L4.6	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.*	No exceedances of blasting criteria have occurred during the audit period.	Compliant
4. OPERATING CONDITIONS			
O1 Activities must be carried out in a competent manner			
O1.1	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.	A review of documentation, interviews with site personnel and the site visit conducted by the auditors confirmed that the site is generally managed according to these requirements.	Compliant
O2 Maintenance of plant and equipment			
O2.1	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.	The auditors saw evidence of plant and equipment being subject to work orders for both scheduled maintenance and ad hoc repairs under the Elipse SQL system. Overall, plant and equipment at the site appeared to be maintained and operated in good working order during the site visit. However, subsequently to the diesel spill that occurred on 10 January 2014, the EPA issued a penalty notice against this EPL condition due to the fact that equipment failure allowed the spill to occur. This spill was contained onsite, and was subsequently remediated to the satisfaction of the EPA. Preventative mechanisms were also installed at the site of the diesel spill to prevent future reoccurrence of the same.	Non-compliant
O3 Dust			
O3.1	The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	A review of site records and the site visit conducted by the auditors confirmed that the site is generally meeting its obligations with regards to managing dust nuisance.	Compliant
O3.2	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.	A review of site records and the site visit conducted by the auditors confirmed that the site is generally meeting its obligations with regards to managing dust nuisance.	Compliant
O4 Effluent application to land			
O4.1	Effluent application must not occur in a manner that causes surface runoff.	A review of documentation and the site visit conducted by the auditors confirmed that these requirements are being fulfilled.	Compliant
O4.2	Spray from effluent application must not drift beyond the boundary of the premises.	A review of documentation and the site visit conducted by the auditors confirmed that these requirements are being fulfilled.	Compliant
O4.3	The quantity of effluent/solids applied to the utilisation area must not exceed the capacity of the area to effectively utilise the effluent/solids. For the purpose of this condition, 'effectively utilise' include the use of the effluent/solids for pasture or crop production, as well as the ability of the soil to absorb the nutrient, salt, hydraulic load and organic material.	A review of documentation and the site visit conducted by the auditors confirmed that these requirements are being fulfilled.	Compliant
O5 Other operating conditions			
O5.1	There must be no incineration or open burning of any material(s) on the premises, except as specifically authorised by the EPA.	This has not occurred during the audit period.	Not Triggered

5 MONITORING AND RECORDING CONDITIONS

M1 Monitoring records

M1.1

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.

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

This monitoring continues to be undertaken.

Compliant

M1.2

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.

Monitoring data from 2011 was provided to the auditors during the site visit.

Compliant

M1.3

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.

Monitoring data sheets were provided to the auditors during the site visit which complied with these requirements.

Compliant

M2 Requirement to monitor concentration of pollutants discharged

M2.1

For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

This monitoring continues to be undertaken.

Compliant

M2.2

Air Monitoring Requirements

POINT 1

Pollutant	Units of measure	Frequency	Sampling Method
Particulates - Deposited Matter	grams per square metre per month	Once a month (min. of 4 weeks)	AM-19

POINT 2

Pollutant	Units of measure	Frequency	Sampling Method
Total suspended particles	micrograms per cubic metre	Every 6 days	AM-15

POINT 4

Pollutant	Units of measure	Frequency	Sampling Method
PM10	micrograms per cubic metre	Continuous	AM-22

This monitoring continues to be undertaken.

Compliant

M3 Testing methods - concentration limits

M3.1

Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:
a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or
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
c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.
Note: The Protection of the Environment Operations (Clean Air) Regulation 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".

Air quality monitoring at the site continues to be undertaken according to these requirements.

Compliant

M4 Weather monitoring

M4.1

Meteorological Monitoring
The Licensee must collect and analyse meteorological data for the parameters specified for each monitoring point at the frequency, and using the method, specified for each parameter.

Meteorological Monitoring

POINT: Site meteorological station located at Easting:305416 Northing:6420505

Parameter	Units of measure	Averaging Period	Method (see note 1)	Frequency
Siting	N/A	N/A	AM-1 & AM-4	
Measurement	N/A	N/A	AM-2 & AM-4	
Wind Speed @ 10m	m/s	10 minutes	AM-2 & AM-4	Continuous
Wind Direaction @ 10m		10 minutes	AM-2 & AM-4	Continuous
Temperture @ 1.2m	Degrees C	1 hour	AM-4	Continuous
Rainfall	mm	24 hours	Standard rain gauge	Continuous

This meteorological monitoring continues to be undertaken.

Compliant

Note: (1) All methods are specified in the Approved Methods for Sampling and Analysis of Air pollutants in New South Wales and all monitoring must be conducted strictly in accordance with the requirements outlined in this document.

During the current audit, the meteorological stations onsite were inspected and observed to be operating correctly. However the site was not able to provide relevant calibration records to confirm this for one of the meteorological stations.

Administrative non-compliant

<table>
<tr><td colspan="4">M5 Recording of pollution complaints</td></tr>
<tr><td>M5.1</td><td>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.</td><td>A review of the site's complaints records and site interviews conducted by the auditors confirmed that these requirements have been complied with.</td><td>Compliant</td></tr>
<tr><td>M5.2</td><td>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.</td><td>A review of the site's complaints records and site interviews conducted by the auditors confirmed that these requirements have been complied with.</td><td>Compliant</td></tr>
<tr><td>M5.3</td><td>The record of a complaint must be kept for at least 4 years after the complaint was made.</td><td>Old complaint records were able to be provided to the auditors.</td><td>Compliant</td></tr>
<tr><td>M5.4</td><td>The record must be produced to any authorised officer of the EPA who asks to see them.</td><td>Relevant complaint records were able to be provided to the auditors.</td><td>Compliant</td></tr>
<tr><td colspan="4">M6 Telephone complaints line</td></tr>
<tr><td>M6.1</td><td>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.</td><td>Interviews with site personnel and a review of the Drayton website confirmed that this hotline continues to be operated.</td><td>Compliant</td></tr>
<tr><td>M6.2</td><td>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.</td><td>Interviews with site personnel and a review of the Drayton website confirmed that this hotline continues to be operated.</td><td>Compliant</td></tr>
<tr><td>M6.3</td><td>The preceding two conditions do not apply until 3 months after: the date of the issue of this licence.</td><td>This was noted, however the audit did not require a finding to be made against this condition.</td><td>Compliant</td></tr>
<tr><td colspan="4">M7 Blasting</td></tr>
<tr><td>M7.1</td><td>To determine compliance with conditions L4.1, L4.2, L4.3 and L4.4:
a) Airblast overpressure and ground vibration levels must be measured and electronically recorded for monitoring points 5, 6 and 7 for the parameters specified in Column 1 of the table below; and
b) The licensee must use the units of measure, sampling method, and sample at the frequency specified opposite in the other columns.
<table><tr><th>Parameter</th><th>Units of Measure</th><th>Frequency</th><th>Sampling Method</th></tr><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></table></td><td>This monitoring continues to be undertaken.</td><td>Compliant</td></tr>
<tr><td colspan="4">M8 Other monitoring and recording conditions</td></tr>
<tr><td>M8.1</td><td>Noise Monitoring
Every six months the Licensee must monitor noise from the premises in accordance with Conditions L3.2 and L3.3 to determine compliance with the limits specified in Condition L3.1.</td><td>Noise monitoring is undertaken on a monthly and quarterly basis. No exceedances of the criteria have been identified.</td><td>Compliant</td></tr>
</table>

6. REPORTING CONDITIONS			
R1 Annual return documents			
R1.1	The licensee must complete and supply to the EPA an Annual Return in the approved form comprising: a) a Statement of Compliance; and b) a Monitoring and Complaints Summary. 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.	A copy of the EPL Annual Return for the 2011 reporting period was provided to the auditors and it was found to contain this information.	Compliant
R1.2	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.*	A copy of the EPL Annual Return for the 2011 reporting period was provided to the auditors. A search of the EPA's database confirmed that EPL Annual Returns were provided to the EPA for each reporting year during the audit period.	Compliant
R1.3	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.*	This has not occurred during the audit period.	Not Triggered
R1.4	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.	This has not occurred during the audit period.	Not Triggered
R1.5	The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	The auditors cited correspondence indicating that Annual Returns had been provided to the EPA on time during the audit period.	Compliant
R1.6	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.	A copy of the EPL Annual Return for the 2011 reporting period was provided to the auditors.	Compliant
R1.7	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.	A copy of the EPL Annual Return for the 2011 reporting period fulfilling these requirements was provided to the auditors.	Compliant
R1.8	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.	On 2 August 2013 at 9:57 pm, a shot was fired in the South Pit. This blast was fired outside approved blasting times due to an error in loading resulting in a non-inhibited product being loaded into reactive ground. Permission to fire outside approved blasting times was sought from the OEH and DP&E. No complaints were received as a result of the blast. A full incident investigation was subsequently undertaken and ten documented corrective actions were completed in consultation with the EPA. No other exceedances of blasting limits have occurred during the audit period.	Compliant
R2 Notification of environmental harm			
R2	*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.*	On 10 January 2014 a significant diesel spill was identified on the site, constituting an environmental harm incident as per the definition afforded in the Protection of the Environment Operations Act 1997. However, the authorities were not notified of this on the same day, and the evidence indicates they were not advised until 13 January 2014. This spill was contained onsite, and was subsequently remediated to the satisfaction of the EPA. Preventative mechanisms were also installed at the site of the diesel spill to prevent future reoccurrence of the same.	Non-compliant
R2.1	Notifications must be made by telephoning the Environment Line service on 131 555.	Interviews with onsite environmental staff confirmed that the EPA was notified of this incident via telephone.	Compliant
R2.2	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.	The resulting Diesel Spill Incident Report was provided to the EPA on 20 January 2014, which is 7 days after the initial notification was made. However, the EPA requested this report in writing with a due date of 28 January 2014.	Compliant

R3 Written report			
R3.1	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 (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.	In response to the diesel spill incident which occurred at the site in January 2014, the site generally complied with follow on requirements from the EPA. In relation to a potential blast fume incident with occurred in June 2015, the site also complied with requests for further information from the EPA.	Compliant
R3.2	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.	In response to the diesel spill incident which occurred at the site in January 2014, the site generally complied with follow on requirements from the EPA. In relation to a potential blast fume incident with occurred in June 2015, the site also complied with requests for further information from the EPA.	Compliant
R3.3	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.	In response to the diesel spill incident which occurred at the site in January 2014, the site generally complied with follow on requirements from the EPA.	Compliant
R3.4	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.	In response to the diesel spill incident which occurred at the site in January 2014, the site generally complied with follow on requirements from the EPA.	Compliant
R3.5	**Reporting of exceedances of blasting limits** 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.	On 2 August 2013 at 9:57 pm, a shot was fired in the South Pit. This blast was fired outside approved blasting times due to an error in loading resulting in a non-inhibited product being loaded into reactive ground. Permission to fire outside approved blasting times was sought from the OEH and DP&E. No complaints were received as a result of the blast. A full incident investigation was subsequently undertaken and ten documented corrective actions were completed in consultation with the EPA. No other exceedances of blasting limits have occurred during the audit period.	Compliant
R3.6	**Spontaneous Combustion Control Program Reporting** The monthly summaries, assessments and maps prepared under the spontaneous combustion control program must be submitted to the EPA in the form of a half yearly report. The licensee must forward a copy of each report to the regional office of the EPA no later than (2) months after the half yearly period being reported.	Examples of the six monthly reports fulfilling these requirements were cited by the auditors. The auditors also cited the relevant energy records relating to spontaneous combustion.	Compliant
R3.7	The monthly summaries, assessments and maps must be retained by the licensee for not less than three (3) years following the period under review. The records must be kept in a legible form and must be made available to any authorised officer of the EPA on request.	These records were able to be provided to the auditors.	Compliant
R3.8	**Noise Monitoring Report** A noise compliance assessment report must be submitted to the EPA on an annual basis with the Annual Return as set out in Condition R1. The report must be prepared by an accredited acoustical consultant and determine compliance with the noise limits in Condition L3.1.	An example of this noise compliance assessment report being submitted with the EPL annual return was cited by the auditors.	Compliant

7. GENERAL CONDITIONS			
G1 Copy of licence kept at the premises or plant			
G1.1	A copy of this licence must be kept at the premises to which the licence applies.	When asked by the audit team, environmental staff at the site were able to access a copy of the EPL.	Compliant
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.	When asked by the audit team, environmental staff at the site were able to access a copy of the EPL.	Compliant
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	Interviews with onsite environmental staff confirmed that this is the case.	Compliant
8. POLLUTION STUDIES AND REDUCTION PROGRAMS			
U1 Coal Mine Wind Erosion of Exposed Land Assessment			
U1.1	The licensee must undertake the following steps: 1. Calculate the wind erosion exposed surface area (in hectares) within the premises as of 31 March 2015. 2. Determine the wind erosion exposed surface area (in hectares) predicted as at 31 March 2015 within the licensee's Environmental Assessment for the premises. 3. Compare the areas calculated in steps 1 and 2. 4. Submit a written report to the EPA at hunter.region@epa.nsw.gov.au containing the analysis required in steps 1 to 3, by 29 May 2015.	This report was prepared and provided to the EPA, as cited by the auditors.	Compliant
	The report submitted to the EPA must be accompanied by spatial data to confirm the wind erosion exposed surface area calculations. The following data is required: • Shapefiles showing the premises boundary. • Shapefiles showing the wind erosion exposed area within the premises as of 31 March 2015. • Shapefiles showing areas classified as stabilised surface as of 31 March 2015. • Details of any studies undertaken to verify that the areas of stabilised surface meet the definition.	This report was prepared and provided to the EPA, as cited by the auditors.	Compliant
	Note: 1. Environmental Assessment means any environmental assessment document prepared in order to gain approval or consent under the Environmental Planning and Assessment Act (1979) under which the Licensee currently operates at the premises. If predictions made in this document do not correspond to the current year of mine operation, the Licensee should interpolate between predictions. *2. Stabilised Surface means any previously disturbed surface area which shows visual or other evidence of surface crusting and is resistant to wind-driven fugitive dust and is demonstrated to be stabilised. Stabilisation can be determined in accordance with one or more of the applicable test methods obtained in the Rule 403 Implementation Handbook located at: www.capcoa.org/Docs/SQAQMD%20r403%20handbook.doc.* *3. Wind Erosion Exposed Surface Area means the portion of the premises surface which has been physically moved, uncovered, destabilised or otherwise modified from its natural state, thereby increasing the potential for particulate matter emissions, but excluding areas which have been:* *- paved or covered by a permanent building or structure;* *- maintained with a vegetative ground cover of at least 50% of ground cover for particular areas.* *Vegetative ground cover can be determined in accordance with the standardised procedure for revegetation assessment contained in Atyeo C. & Thackway R. (2009) located at: http://data.daff.gov.au/data/warehouse/pe_brs90000004196/revegetationManual200906_20100410_ap14.pdf; or;* *- classified as a stabilised surface.*		
U2 V Notch Weir Monitoring Program			
U2.1	The licensee must: 1. Conduct a targeted V Notch weir ('the weir') monitoring program that includes: - Continued monthly monitoring of water quality at the V Notch Weir (the Weir) (pollutants/parameters to include those reported in the document titled 'Access Road Dam' dated 24 September 2014, pg 4). - real-time flow monitoring at the weir and recording of daily flows (in L/day) - rainfall monitoring (existing licence condition M4.1) - monitoring at the groundwater monitoring bore (DS1) on a monthly basis for the following parameters: groundwater level, electrical conductivity, pH, total dissolved solids, and salinity. - monitoring of electrical conductivity in the Access Road Dam (at least quarterly) at 3 different depths within the dam – 30cm, 4m and 8m depth.	This monitoring continues to be undertaken.	Compliant
	2. Return all water draining to the Weir back to the Access Road Dam (or an alternate 'dirty' water dam on the premises) to ensure that saline water is not discharged from the premises. Pumping is to commence no later than 28 August 2015.	Interviews with site personnel confirmed this was commenced prior to 28 August 2015.	Compliant
9. SPECIAL CONDITIONS			
E1 Spontaneous combustion control program			
E1.1	**Spontaneous combustion control program** Carbonaceous material that is prone to self heating and which is not extracted as run of mine coal must be selectively removed and purposely disposed of in such a manner that will prevent the development of spontaneous combustion at the disposal site.	A review of the site's complaints records and site interviews conducted by the auditors confirmed that these requirements have been complied with.	Compliant
	The licensee must implement a Spontaneous Combustion Control Program which must include, but may not be limited to, the following:- (a) A monthly summary of actions and procedures undertaken to prevent the development or to control the spread of spontaneous combustion at the premises. (b) An assessment of the effectiveness of the actions and procedures undertaken every month in preventing the development and control of the spread of spontaneous combustion at the premises. (c) Monthly mapping of the approximate location of the areas subject of spontaneous combustion at the premises. The map must show the respective areas in square metres of each area affected and must include a key to show the relative intensity of the heatings.	Examples of the six monthly reports fulfilling all these requirements were provided to the auditors.	Compliant

Appendix G

Audit Protocol: Coal Leases 229 and 395 and Mining Lease 1531

Appendix G Audit Protocol: Coal Leases 229 and 395 and Mining Lease 1531

Reference	Requirement	Evidence	Audit Finding
Coal Lease 229, Coal Lease 395 and Mining Lease 1531			
Extraction of Coal			
1	The lease holder shall extract as large a percentage of the coal in the subject area as is practicable consistent with the provisions of the Coal Mines Regulation Act 1982 and the Regulations thereunder and shall comply with any direction given or which may be given in this regard by the Minister.	Despite scaled back operations occurring at the site during the audit period, Anglo Coal still managed to extract around 4.5 Mtpa of ROM coal in 2012 and 2013, and around 5Mtpa of ROM coal in 2014.	Compliant
Notice to Landholders			
1 (CL395 only)	Within a period of three months from the date of 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 renewed and whether the lease includes the surface. An adequate plan and description of the lease area must accompany the notice. 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 this lease has been renewed; state whether the lease includes the surface and must contain an adequate plan and description of the lease area.	This has not occurred during the audit period.	Not Triggered
Mining, Rehabilitation, Environmental Management Process (MREMP), Mining Operations Plan (MOP)			
1	(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:	The *Mining Operations Plan Drayton Mine – 2012-2017* fulfils these requirements.	Compliant
	(a) ongoing mining operations and environmental management; and	Plans 1A to 7 of the *Mining Operations Plan Drayton Mine – 2012-2017* fulfil this requirement.	Compliant
	(b) ongoing monitoring of the project.	Section 7 of the *Mining Operations Plan Drayton Mine – 2012-2017* fulfils these requirements.	Compliant
	(2) The Plan must be prepared in accordance with the Director-General's guidelines current at the time of lodgement.	The *Mining Operations Plan Drayton Mine – 2012-2017* fulfils these requirements.	Compliant
	(3) A Plan must be lodged with the Director-General:	The *Mining Operations Plan Drayton Mine – 2012-2017* fulfils these requirements.	Compliant
	(a) prior to the commencement of operations;	The *Mining Operations Plan Drayton Mine – 2012-2017* fulfils these requirements.	Compliant
	(b) subsequently as appropriate prior to the expiry of any current Plan; and	The *Mining Operations Plan Drayton Mine – 2012-2017* fulfils these requirements.	Compliant
	(c) in accordance with any direction issued by the Director-General.	The *Mining Operations Plan Drayton Mine – 2012-2017* fulfils these requirements.	Compliant
	(4) 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:	The *Mining Operations Plan Drayton Mine – 2012-2017* fulfils these requirements.	Compliant
	(a) area(s) proposed to be disturbed under the Plan;	Plan 4 of the *Mining Operations Plan Drayton Mine – 2012-2017* fulfils this requirement.	Compliant
	(b) mining and rehabilitation method(s) to be used and their sequence;	Plans 5 and 6 of the M*ining Operations Plan Drayton Mine – 2012-2017* fulfil this requirement.	Compliant
	(c) areas to be used for disposal of tailings/waste;	The *Mining Operations Plan (1 July 2015 to 30 June 2020)* (Anglo Coal, 2015) will fulfil these requirements going forward.	Compliant
	(d) existing and proposed surface infrastructure;	Plan 4 of the *Mining Operations Plan Drayton Mine – 2012-2017* fulfils this requirement.	Compliant
	(e) progressive rehabilitation schedules;	Plans 5 and 6 of the M*ining Operations Plan Drayton Mine – 2012-2017* fulfil this requirement.	Compliant
	(f) areas of particular environmental sensitivity;	Plan 1A and 1B of the *Mining Operations Plan Drayton Mine – 2012-2017* fulfil this requirement.	Compliant
	(g) water management systems (including erosion and sediment controls);	The *Mining Operations Plan (1 July 2015 to 30 June 2020)* (Anglo Coal, 2015) will fulfil these requirements going forward.	Compliant
	(h) proposed resource recovery; and	Plan 4 of the *Mining Operations Plan Drayton Mine – 2012-2017* fulfils this requirement.	Compliant
	(i) 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.	Plan 6 of the *Mining Operations Plan Drayton Mine – 2012-2017* fulfils this requirement.	Compliant
	(5) The Plan when lodged will be reviewed by the Department of Mineral Resources.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
	(6) The Director-General may within two (2) months of the lodgement of a Plan, require modification and relodgement.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
	(7) If a requirement in accordance with clause (6) is not issued within two months of the lodgement of a Plan, lease holder may proceed with implementation of the Plan submitted subject to the lodgement of the required security deposit within the specified time.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
	(8) During the life of the Mining Operations Plan, proposed modification to the Plan must be lodged with the Director-General and will be subject to the review process outlined in clauses (5)-(7) above.	This consultation is evidenced by the preparation of the new Draft MOP which will run through until 2020.	Compliant
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 AEMRs 2012, 2013 and 2014 fulfil these requirements.	Compliant
	(2) 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 preceeding and ensuing twelve months in terms of:	The AEMRs 2012, 2013 and 2014 fulfil these requirements.	Compliant
	(a) the accepted Mining Operations Plan;	Section 3 of the 2012, 2013 and 2014 AEMRs fulfils this requirement.	Compliant
	(b) development consent requirements and conditions;	Section 3 of the 2012, 2013 and 2014 AEMRs fulfils this requirement.	Compliant
	(c) Environment Protection Authority and Department of Land and Water Conservation licences and approvals;	Section 3 of the 2012, 2013 and 2014 AEMRs fulfils this requirement.	Compliant
	(d) any other statutory environmental requirements;	Section 3 of the 2012, 2013 and 2014 AEMRs fulfils this requirement.	Compliant
	(e) details of any variations to environmental approvals applicable to the lease area; and	Section 1 of the 2012, 2013 and 2014 AEMRs fulfils this requirement.	Compliant

	(f) where relevant, progress towards final rehabilitation objectives.	Section 5 of the 2012, 2013 and 2014 AEMRs fulfils this requirement.	Compliant
	(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 the operations on the lease area are conducted in accordance with sound mining and environmental practice.	Section 1.2 of the 2012, 2013 and 2014 AEMRs fulfil these requirements.	Compliant
	(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.	This has not occurred during the audit period.	Not Triggered
Subsidence Management			
4 (CL395 only)	(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.	This has not occurred during the audit period.	Not Triggered
	(b) Underground mining operations which will potentially lead to subsidence include secondary extraction panels such as longwalls or miniwalls, associated first workings (gateroads, installation roads and associated main headings, etc), and pillar extractions, and are otherwise defined by the Applications for Subsidence Management Approvals guidelines (EDG17).	This has not occurred during the audit period.	Not Triggered
	(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 Mine Health and Safety Act 2002, or the document New Subsidence Management Plan Approval Process - Transitional Provisions (EDP09).	This has not occurred during the audit period.	Not Triggered
	(d) Subsidence Management Plans are to be prepared in accordance with the Guideline for Applications for Subsidence Management Approvals.	This has not occurred during the audit period.	Not Triggered
	(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 Approvals Process for Management of Coal Mining Subsidence - Policy.	This has not occurred during the audit period.	Not Triggered
Working Requirement			
5	The lease holder must: (a) ensure that at least 1 competent person is efficiently employed on the lease area on each week day except on Sunday or any week day that is a public holiday; or	At least 400 persons were employed at the site during the audit period, as outlined in Section 1 of the 2012, 2013 and 2014 AEMRs.	Compliant
	(b) expend on operations carried out in the course of prospecting or mining the lease area, an amount of not less than $17,500 per annum whilst the lease is in force.	This was evidenced by citing Anglo Coal annual financial reports.	Compliant
	The Minister may at any time or times, by instrument in writing served on the lease holder, increase or decrease the expenditure required or the number of people to be employed.	This has not occurred during the audit period.	Not Triggered
Control of Operations			
6 (CL395 only)	(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.	This has not occurred during the audit period.	Not Triggered
	(b) The lease holder must comply with any direction given. The Director-General may confirm, vary or revoke any such direction.	This has not occurred during the audit period.	Not Triggered
	(c) A direction referred to in this condition may be served on the Mine Manager.	This has not occurred during the audit period.	Not Triggered
Reports			
7 (CL395 only)	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:	This has not occurred within CL395 during the audit period.	Not Triggered
	(a) Full particulars, including results, interpretation and conclusions, of all exploration conducted during the twelve months period;	This has not occurred within CL395 during the audit period.	Not Triggered
	(b) Details of expenditure incurred in conducting that exploration;	This has not occurred within CL395 during the audit period.	Not Triggered
	(c A summary of all geological fencings acquired through mining or development evaluation activities;	This has not occurred within CL395 during the audit period.	Not Triggered
	(d) Particulars of exploration proposed to be conducted in the next twelve months period;	This has not occurred within CL395 during the audit period.	Not Triggered
	(e) All plans, maps, sections and other data necessary to satisfactorily interpret the report.	This has not occurred within CL395 during the audit period.	Not Triggered
Licence to Use Reports			
8 (CL395 only)	(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.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
	(b) The non-exclusive licence will operate as a consent for the purposes of section 365 of the Mining Act 1992.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
Confidentiality			
9 (CL395 only)	(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:	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
	(i) the lease holder has agreed that specified reports may be made non-confidential.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
	(ii) reports deal with exploration conducted exclusively on areas that have ceased to be part of the lease.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
	(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.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
	(c) The Director-General may extend the period of confidentiality.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered

Terms of the non-exclusive licence			
10 (C395 only)	The terms of the non-exclusive licence copyright licence granted under condition 8(a) are:	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
	(a) the Minister may sub-licence others to publish, print, adapt and reproduce but not on-licence reports.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
	(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.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
	(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.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
	(d) there is no royalty payable by the Minister for the licence.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
	(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,	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
Blasting			
11 (CL395 only)	(a) Ground Vibration The lease holder must ensure that the ground vibration peak peak particle velocity generated by any blasting within the lease area does not exceed 10mm/second and does not exceed 5 mm/second in more tan 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 exceedances of these ground vibration criteria occurred during the audit period.	Compliant
	(b) 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 exceedances of these ground vibration criteria occurred during the audit period.	Compliant
Safety			
12 (CL 395 only)	Operations must be carried out in a manner that ensures the safety of persons or stock in the vicinity of the operations. All drills 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.	No fences/gates are located on this particular CL area.	Not Triggered
Rehabilitation			
13 (CL395 only)	(a) 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:	A review of documentation and the site visit conducted by the auditors confirmed that the site continues to be operated according to these requirements.	Compliant
	- there is no adverse environmental effect outside the disturbed area and that the land is properly drained and protected from soil erosion.	A review of documentation and the site visit conducted by the auditors confirmed that the site continues to be operated according to these requirements.	Compliant
	- the state of the land is compatible with the surrounding land and land use requirements.	A review of documentation and the site visit conducted by the auditors confirmed that the site continues to be operated according to these requirements.	Compliant
	- the landforms, soils, hydrology and flora requires no greater maintenance than that in the surrounding land.	A review of documentation and the site visit conducted by the auditors confirmed that the site continues to be operated according to these requirements.	Compliant
	- in cases where revegetation is required and native vegetation has been removed or damaged, the original species must be reestablishment 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.	A review of documentation and the site visit conducted by the auditors confirmed that the site continues to be operated according to these requirements.	Compliant
	- the land does not pose a threat to public safety.	A review of documentation and the site visit conducted by the auditors confirmed that the site continues to be operated according to these requirements.	Compliant
	(b) Any topsoil that is removed must be stored and maintained in a manner acceptable to the Director-General.	A review of documentation and the site visit conducted by the auditors confirmed that the site continues to be operated according to these requirements.	Compliant
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.	A review of documentation and the site visit conducted by the auditors confirmed that the site continues to be operated according to these requirements.	Compliant
Shafts, Drifts, Adits			
14	Operations shall be conducted in such a manner as not to cause any danger to persons or stock and the lease holder shall provide and maintain adequate protection to the satisfaction of the Minister around each shaft or excavation opened up or caused by the lease holder.	The audit team viewed evidence of security staff inspecting access ways. It is recommended that the site implement an inspection regime for fences.	Compliant - Recommendation Made
Dumps			
15	The lease holder shall comply with any direction, given or which may be given by the Inspector regarding the dumping, depositing or removal of material extracted as well as the stabilisation and revegetation of any dumps of coal, minerals, mine residues, tailings or overburden situated on the subject area or the associated colliery holdings.	This has not occurred during the audit period.	Not Triggered
16	The lease holder shall comply with any direction given or which may be given by the Minister regarding the spraying of coal dumps on the subject area.	This has not occurred during the audit period.	Not Triggered

Exploratory Drilling			
15 (CL395 only)	(1) At least twenty eight days prior to commencement of drilling operations the lease holder must notify the relevant Department of Natural Resources regional hydrologist of the intention to drill exploratory drill holes together with information on the location of the proposed holes.	This has not occurred within CL395 during the audit period.	Not Triggered
	(2) If the lease holder drills exploratory drill holes he must satisfy the Director-General that:	This has not occurred within CL395 during the audit period.	Not Triggered
	(a) all cored holes are accurately surveyed and permanently marked in accordance with Departmental guidelines so that their location can be easily established;	This has not occurred within CL395 during the audit period.	Not Triggered
	(b) all holes cored or otherwise are sealed to prevent the collapse of the surrounding surface;	This has not occurred within CL395 during the audit period.	Not Triggered
	(c) all drill holes are permanently sealed with cement plugs to prevent surface discharge of groundwaters;	This has not occurred within CL395 during the audit period.	Not Triggered
	(d) if any drill hole meets natural or noxious gases it is plugged or sealed to prevent their escape;	This has not occurred within CL395 during the audit period.	Not Triggered
	(e) if any drill hole meets an artesian or sub-artesian flow it is effectively sealed to prevent contamination of aquifers.	This has not occurred within CL395 during the audit period.	Not Triggered
	(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.	This has not occurred within CL395 during the audit period.	Not Triggered
	(g) once any drill hole ceases to be used the land and its immediate vicinity is left in a clean, tidy and stable condition.	This has not occurred within CL395 during the audit period.	Not Triggered
Prevention of Soil Erosion and Pollution			
16 (CL395 only)	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.	This has not occurred during the audit period.	Compliant
Dust			
17	The lease holder shall take such precautions as are necessary to abate any dust nuisance.	A review of site records and the site visit conducted by the auditors confirmed that the site is generally meeting its obligations with regards to managing dust nuisance.	Compliant
Fences, Gates			
18 (CL395 only)	(a) activities on the lease must not interfere with or damage fences without the prior written approval of the owner thereof of the Minister and subject to any conditions the Minister may stipulate.	This has not occurred during the audit period.	Not Triggered
	(b) Gates within the lease area must be closed or left open in accordance with the requirements of the landholder.	The audit team viewed evidence of security staff inspecting access ways. It is recommended that the site implement an inspection regime for fences.	Compliant - Recommendation Made
Roads and Tracks			
19 (CL395 only)	(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.	This has not occurred during the audit period.	Not Triggered
	(b) The lease holder must pay to the designed 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.	This has not occurred during the audit period.	Not Triggered
20	Access tracks must be kept to a minimum and be positioned so that they do not cause any unnecessary damages 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 Natural Resources.	This has not occurred during the audit period.	Not Triggered
Trees and Timber			
21 (CL395 only)	(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 to consent or attaches unreasonable conditions to the consent, without the approval of a warden.	This has not occurred during the audit period.	Not Triggered
	(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 Act 2003.	This has not occurred during the audit period.	Not Triggered
	(c) The lease holder must obtain all necessary approvals or licences before using timber from any Crown land within the lease area.	This has not occurred during the audit period.	Not Triggered

Resource Recovery			
23 (CL395 only)	(a) 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 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.	This has not occurred during the audit period.	Not Triggered
	(b) 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.	This has not occurred during the audit period.	Not Triggered
	(c) 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.	This has not occurred during the audit period.	Not Triggered
	(d) 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.	This has not occurred during the audit period.	Not Triggered
	(e) 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.	This has not occurred during the audit period.	Not Triggered
	(f) 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.	This has not occurred during the audit period.	Not Triggered
Management and Rehabilitation of Lands (General)			
18	The lease holder shall not interfere in any way with any fences on or adjacent to the subject area unless with the prior written approval of the owner thereof or the Minister and subject to such conditions as the Minister may stipulate.	This has not occurred during the audit period.	Not Triggered
19	The lease holder shall observe any instruction given or which may be given by the Minister with a view to minimising or preventing public inconvenience or damage to public or private property.	This has not occurred during the audit period.	Not Triggered
20	If required to do so by the Minister and within such time as may be stipulated by the Minister the lease holder shall carry out to the satisfaction of the Minister surveys of structures, buildings and pipelines on adjacent landholdings to determine the effect of operations on any structures, buildings and pipelines.	This has not occurred during the audit period.	Not Triggered
21	If so directed by the Minister the lease holder shall rehabilitate to the satisfaction of the Minister any lands within the subject area which may have been disturbed by the lease holder.	A review of site documentation as well as the site visit conducted by the auditors confirmed that the site generally seems to be tracking toward its rehabilitation criteria.	Compliant
22	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.	This has not occurred during the audit period.	Not Triggered
23	of the Minister and within such time as may be allowed by the Minister any lands within the subject area which may have been disturbed by mining or prospecting operations whether such operations were or were not carried out by the lease holder.	A review of site documentation as well as the site visit conducted by the auditors confirmed that the site generally seems to be tracking toward its rehabilitation criteria.	Compliant
24	The lease holder shall take all precautions against causing outbreak of fire on the subject area.	Sections 3.14 and 3.15 of the 2012 and 2013 AEMRs, and Sections 3.15 and 3.16 of the 2014 AEMR fulfil these requirements.	Compliant
25	The lease holder shall provide and maintain to the satisfaction of the Minister efficient means to prevent contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse or catchment area or any undue interference to fish or their environment and shall observe any instruction given or which may be given by the Minister with a view to preventing or minimising the contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse or catchment area or any undue interference to fish or their environment.	On 10 January 2014 a significant diesel spill was identified on the site, constituting an environmental harm incident as per the definition afforded in the Protection of the Environment Operations Act 1997. The EPA considered this event to constitute a contravention of section 120 of the POEO Act (pollution of waterways). This spill was contained onsite, and was subsequently remediated to the satisfaction of the EPA. Preventative mechanisms were also installed at the site of the diesel spill to prevent future reoccurrence of the same.	Non-compliant
Indemnity			
24 (CL395 only)	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 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 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 .	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
Single Security (extended)			
26 (CL395 only)	(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 Coal Lease 229 (Act 1973) and Mining Lease 1531 (Act 1992) is extended to apply to this lease.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
	(b) if the lease holder fails to fulfil 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.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered

Blasting			
26	The lease holder shall monitor noise and vibration and institute controls, generally in accordance with the recommendations of Australian Standard AS-2187-1993 and ANZEC Guidelines.	This blasting continues, and no exceedances of blasting criteria occurred during the audit period.	Compliant
	(a) Ground Vibration The lease holder shall design all blasts on the basis that the ground vibration peak particle velocity generated by any blasting within the subject area, shall not exceed the levels in or condition of the EPA Licence for the mine, at any dwelling or occupied premises not owned by the lease holder, the holder of an authority under the Mining Act, or not subject to a valid agreement with the lease holder, with respect to the effects of blasting.	This blasting continues, and no exceedances of blasting criteria occurred during the audit period.	Compliant
	(b) Blast Overpressure The lease holder shall design all blasts on the basis that the blast overpressure noise level generated by any blasting within the subject area, shall not exceed the levels in or conditions of the EPA Licence for the mine, at any dwelling or occupied premises not owned by the lease holder, the holder of any authority under the Mining Act, or not subject to a valid agreement with the lease holder, with respect to the effects of blasting.	This blasting continues, and no exceedances of blasting criteria occurred during the audit period.	Compliant
Trees (Planting and Protection of) Flora and Fauna and Arboreal Screens			
27	If so directed by the Minister, the lease holder shall ensure that operations are carried out in such manner so as to minimise disturbance to flora and fauna within the subject area.	Auditors cited copy of Permit to Disturb Land evidencing that these requirements are being carried out.	Compliant
29	The lease holder shall maintain an arboreal screen to the satisfaction of the Minister within such parts of the subject area as may be specified by the Minister and shall plant such trees or shrubs as may be required by the Minister to preserve the arboreal screen in a condition satisfactory to the Minister.	The tree screen along Thomas Mitchell Drive was observed by the auditors during the site visit and was found to be in good condition.	Compliant
Soil Erosion			
30	The lease holder shall conduct operations in such a manner as not to cause or aggravate soil erosion and the lease holder shall observe and perform any instructions given or which may be given by the Minister with a view to minimising or preventing soil erosion.	A review of documentation and the site visit conducted by the auditors confirmed that the site continues to be operated according to these requirements.	Compliant
Roads			
31	The lease holder shall pay to Muswellbrook Shire Council, Department of Land and Water Conservation or the Chief Executive, Roads and Traffic Authority the cost incurred by such Council or Department or Chief Executive of making good any damage caused by operations carried on by or under the authority of the lease holder to any road adjoining or traversing the surface or the excepted surface, as the case may be of the subject area.	This has not occurred during the audit period.	Not Triggered
	Provided However that the amount to be paid by the lease holder as aforesaid shall be reduced by such sum of money if any as may be paid to the said Council the Department of Land and water Conservation or the Chief Executive, Roads and Traffic Authority as the case may be from the Mine Subsidence Compensation Fund constituted under the Mine Subsidence Compensation Act 1961, in settlement of a claim for compensation for the same damage.	This has not occurred during the audit period.	Not Triggered
32	In the event of operations being conducted on the surface of any road, track or firetrail traversing the subject area or in the event of such operations causing damage to or interference with any such road, track or firetrail the lease holder, at his own expense, shall if directed to do so by the Minister provide to the satisfaction of the Minister an alternate road, track or firetrail in a position as required by the Minister and shall allow free and uninterrupted access along such alternate road, track or firetrail and, if required to do so by the Minister, the lease holder shall upon completion of operations rehabilitate the surface of the original road, track or firetrail to a condition satisfactory to the Minister.	This has not occurred during the audit period.	Not Triggered
Catchment Areas			
33	(a) Operations shall be carried out in such a way as not to cause any pollution of the Hunter Catchment Area.	On 10 January 2014 a significant diesel spill was identified on the site, constituting an environmental harm incident as per the definition afforded in the Protection of the Environment Operations Act 1997. The EPA considered this event to constitute a contravention of section 120 of the POEO Act (pollution of waterways). This spill was contained onsite, and was subsequently remediated to the satisfaction of the EPA. Preventative mechanisms were also installed at the site of the diesel spill to prevent future reoccurrence of the same. Given that additional monitoring wells established that no diesel migrated offsite, this was not considered to have caused pollution of the Hunter Catchment Area.	Compliant
	(b) If the lease holder is using or about to use any process which in the opinion of the Minister is likely to cause contamination of the waters of the said Catchment Area the lease holder shall refrain from using or cease using as the case may require such processes within twenty four (24) hours of the receipt by the lease holder of a notice in writing under the hand of the Minister requiring the lease holder to do so.	This has not occurred during the audit period.	Compliant
	(c) The lease holder shall comply with any regulations now in force or hereafter to be in force for the protection from pollution of the said Catchment Area.	On 10 January 2014 a significant diesel spill was identified on the site, constituting an environmental harm incident as per the definition afforded in the Protection of the Environment Operations Act 1997. The EPA considered this event to constitute a contravention of section 120 of the POEO Act (pollution of waterways). This spill was contained onsite, and was subsequently remediated to the satisfaction of the EPA. Preventative mechanisms were also installed at the site of the diesel spill to prevent future reoccurrence of the same. Given that additional monitoring wells established that no diesel migrated offsite, this was not considered to have caused pollution of the Hunter Catchment Area.	Compliant

Transmission Lines, Communication Lines and Pipelines			
41	The lease holder shall as far as is practicable so conduct operations as not to interfere with or impair the stability or efficiency of any transmission line, communication line or pipeline traversing the direction given or which may be given by the Minister in this regard.	Auditors cited copy of Permit to Disturb Land evidencing that these requirements are being carried out.	Compliant
Aboriginal Place or Aboriginal Object			
43	The lease holder shall not knowingly destroy, deface or damage any Aboriginal object or Aboriginal place or within the subject area except in accordance with an authority issued under the National Parks and Wildlife Act, 1974, and shall take every precaution in drilling, excavating or disturbing the land against any such destruction, defacement or damage.	The site's Permit to Disturb Land Form contains a requirement to consider the possible presence of Aboriginal heritage.	Compliant
Labour/Expenditure			
44 (CL 229)	The lease holder shall during each year of the term of the authority:		
	(a) ensure that at least 63 workers are efficiently employed on the subject area; or	At least 400 persons were employed at the site during the audit period, as outlined in Section 1 of the 2012, 2013 and 2014 AEMRs.	Compliant
	(b) expend on operations carried out in the course of prospecting or mining the subject area, an amount of not less than $1,102,500.	This was evidenced by citing Anglo Coal annual financial reports.	Compliant
	The Minister may, at any time after a period of two (2) years from the date on which this authority has effect or from the date on which the renewal of this authority has effect, increase or decrease the amount of expenditure or labour required.	This has not occurred during the audit period.	Not Triggered
44 (ML 1531)	The lease holder shall during each year of the term of the authority:		
	(a) ensure that at least 8 workers are efficiently employed on the subject area; or	At least 400 persons were employed at the site during the audit period, as outlined in Section 1 of the 2012, 2013 and 2014 AEMRs.	Compliant
	(b) expend on operations carried out in the course of prospecting or mining the subject area, an amount of not less than $140,000.	This was evidenced by citing Anglo Coal annual financial reports.	Compliant
	The Minister may, at any time after a period of two (2) years from the date on which this authority has effect or from the date on which the renewal of this authority has effect, increase or decrease the amount of expenditure or labour required.	This has not occurred during the audit period.	Not Triggered
Additional Information			
45	The lease holder shall if directed by the Minister and within such time as the Minister may stipulate furnish to the Minister:	This has not occurred during the audit period.	Not Triggered
	(a) information regarding the ownership of the land within the subject area;	This has not occurred during the audit period.	Not Triggered
	(b) information regarding the ownership of the coal within the subject area prior to 1st January, 1982;	This has not occurred during the audit period.	Not Triggered
	(c) an indemnity in a form approved by the Minister indemnifying the Crown and the Minister against any wrong payment effected as a result of incorrect information furnished by the lease holder;	This has not occurred during the audit period.	Not Triggered
	(d) information regarding the financial viability of the lease holder and operations within and associated with the subject area;	This has not occurred during the audit period.	Not Triggered
	(e) information regarding shareholdings in the lease holder.	This has not occurred during the audit period.	Not Triggered
Service of Notices			
46	Within a period of three (3) months from the date of this authority or a period of three (3) months from the date of service of the notice of renewal, or within such further time as the Director General may allow, the lease holder shall serve on each landholder within the subject area a notice in writing indicating that this authority has been granted or renewed and whether the authority includes the surface. The notice shall be accompanied by an adequate plan and description of the subject area.	This has not occurred during the audit period.	Not Triggered
	If there are ten (10) or more landholders affected the lease holder may serve the notice by publication in a newspaper circulating in the region where the subject area is situated. The notice shall indicate that this authority has been granted or renewed, state whether the authority includes the surface and shall contain an adequate plan and description of the subject area.	This has not occurred during the audit period.	Not Triggered
Inspectors			
47	(a) Where an Inspector under the Mining Act 1992 is of the opinion that any condition of this authority relating to operations within the subject area, or any provision of the Mining Act, 1992, relating to operations within the subject area, are not being complied with by the lease holder, the Inspector may serve on the lease holder a notice stating that and give particulars of the reason why, and may in such notice direct the lease holder:	This has not occurred during the audit period.	Not Triggered
	(i) to cease operations within the subject area in contravention of that condition or Act; and	This has not occurred during the audit period.	Not Triggered
	(ii) to carry out within the specified time works necessary to rectify or remedy the situation.	This has not occurred during the audit period.	Not Triggered
	(b) The lease holder shall comply with the directions contained in any notice served pursuant to sub paragraph (a) of this condition. The Director General may confirm, vary or revoke any such direction.	This has not occurred during the audit period.	Not Triggered
	(c) A notice referred to in this condition may be served on the Colliery Manager.	This has not occurred during the audit period.	Not Triggered
Indemnities			
48	The lease holder shall indemnify and keep and keep indemnified the Crown from and against all actions suits and claims and demands of whatsoever nature and all costs charges and expense 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 the boundaries of the subject area or in connection with any of the operations notwithstanding that all other conditions of this authority shall in all respects have been observed by the lease holder or that any such incident or injury shall arise from any act or thing which the lease holder may be licensed or compelled to do hereunder.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
49	The lease holder shall save harmless the Crown from payment of compensation and from and against all claims, actions, suits or demands whatsoever in the event of any damage resulting from mining operations under or near the subject area.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered

Prospecting (General)			
50	(a) Where the lease holder desires to commence prospecting operations in the subject area the lease holder shall notify the Director General in writing and shall comply with such additional conditions as the Minister may impose including any condition requiring the lodgement of an additional bond or other form of security for rehabilitation of the area affected by such operations.	This has not occurred during the audit period.	Not Triggered
	(b) Where the lease holder notifies the Director General pursuant to sub paragraph (a) of this condition the lease holder shall furnish with that notification details of the type of prospecting methods that would be adopted and the extent and location of the area that would be affected by them.	This has not occurred during the audit period.	Not Triggered
Security Deposit			
51 (CL 229)	(a) The joint security of $15,268,000 (Fifteen Million, Two Hundred and Eighty Six Thousand Dollars) lodged with the Minister by the Lease holder for the purpose of ensuring the fulfilment by the leaseholder of its obligations under the Coal Lease 395 (Act 1973) and Mining Lease 1531 (Act 1992), includes the obligations of this lease. In the event that the lease holder fails to fulfil any of the lease holder's obligations under these authorities the said sum may be applied at the discretion of the Minister towards the cost of fulfilling such obligations. For the purposes of the clause a lease holder shall be deemed to have failed to fulfil the lease holder's obligations under these authorities, if the lease holder fails to comply with any condition or provision of these authorities, any provision of the Act or regulations made thereunder or any condition or direction imposed or given pursuant to a condition or provision of these authorities or of any provision of the Act or regulations made thereunder.	This has not been required during the audit period.	Not Triggered
	(b) The lease holder must provide the security required by sub-clause (a) hereof in one of the following forms:	This has not been required during the audit period.	Not Triggered
	(i) cash, or	This has not been required during the audit period.	Not Triggered
	(ii) a security certificate in such form and given by such surety as may from time to time be approved by the Minister.	This has not been required during the audit period.	Not Triggered
	(c) The Minister may at any time, vary the amount of security required in accordance with this condition.	This has not occurred during the audit period.	Not Triggered
Single Security (extended)			
51 (ML 1531)	The joint security of $8,827,600 lodged with the Minister by the lease holder for the purpose of ensuring the fulfilment by the lease holder of its obligations under Coal Lease 229 (Act 1973) and Coal lease 395 (Act 1973) is extended to apply to this lease.	This has not been required during the audit period.	Not Triggered
Royalty at Additional Rate			
54	The lease holder shall during the term of this authority pay to the Minister royalty at the additional rate as prescribed by the Regulations for coal recovered by open cut mining methods from the area.	This was evidenced by citing Anglo Coal annual financial reports.	Compliant

Appendix H

Audit Protocol: Noise Management Plan (AngloAmerican, May 2014)

Appendix H Audit Protocol: *Noise Management Plan* (AngloAmerican, May 2014)

Reference	Requirement	Evidence	Audit Finding
Noise Management Plan (AngloAmerican, May 2014)			
5.0 Procedural Requirements			
5.1 Responsibilities			
5.1	**SHE Manager** • Develop and implement noise monitoring protocols for evaluating compliance with noise impact assessments and land acquisition criteria; • Approving revisions of this monitoring program; and • Planning for adequate resources to implement this management plan.	A review of documentation and interviews conducted by the auditors confirmed that these requirements are being carried out.	Compliant
5.1	**Environment Coordinator** • Coordinate noise monitoring programs; and • Report noise monitoring data as required.	A review of documentation and interviews conducted by the auditors confirmed that these requirements are being carried out.	Compliant
5.1	**Environmental Officer** • Monitor, collect and analyse data regarding noise monitoring; and • Monitor Drayton's real time noise monitoring system.	A review of documentation and interviews conducted by the auditors confirmed that these requirements are being carried out.	Compliant
5.1	**Mine Manager** • Implement noise control measures with regard to equipment mobilization and mining operations.	A review of documentation and interviews conducted by the auditors confirmed that these requirements are being carried out.	Compliant
5.2 Audit/Review Schedule			
5.2	Plan is to be reviewed at least every three years or as otherwise directed by the Director-General of NSW Department of Planning and Infrastructure (DoPI). Review process is to reflect independent environmental audit findings, changes in environmental legislation, standards and guidelines, and changes in technology or operational procedures.	Given that the previous version of the Noise Management Plan (AngloAmerican, May 2014) is dated October 2012, it can be concluded that this commitment was complied with during the audit period.	Compliant
5.2	In accordance with Project Approval (06_ 0202), at the end of year two of the development, and every three years thereafter, Drayton will commission an independent environmental audit to the satisfaction of Director-General of DoP. The audit will include an assessment of the adequacy of all management plans. Where necessary, following the audit this management plan may be updated and action taken to improve noise management practices at Drayton.	Not all recommendations from the previous audit appear to have been considered in the latest version of the Noise Management Plan.	Administrative non-compliance
5.3 Records Management			
5.3	All records of environmental monitoring will be kept on file in the SHE department for a period of not less than 10 years.	Relevant records were able to be provided to the auditors during the site visit.	Compliant
6.0 Statutory Requirements and Commitments			
6	Environmental monitoring at Drayton is conducted in accordance with the following approvals/Acts, regulatory conditions or standards: The Protection of the Environment Operations Act 1997 (PoEO Act) and associated environmental licence (Ref 1323) administered by the NSW Environmental Protection Authority. Environmental Planning and Assessment Act 1979 (EP&A Act) associated project approval conditions (Ref 06_0202, and DA 106-04-00) administered by the DoPI. Anglo Coal Drayton Mine Environmental Assessment (EA) 2007. NSW Industrial Noise Policy (INP). Anglo American Metallurgical Coal Safety, Health and Environment Management System (SHEMS). Incident Reporting, Notification and Initial Investigation Procedure (Drayton 2012).	The monthly noise monitoring does not appear to be undertaken in accordance with the approved methodology. Noise levels are arbitrarily separated into contributions from different sources, do not appear to be specific to the operations undertaken onsite at the time of measurements, and is not calibrated against measurements taken. Specifically, noise monitoring undertaken by external consultants does not appear to adequately isolate background noise levels from the source noises which are required to be monitored.	Non-compliant
7 Noise Impact Assessment Criteria			
7	Noise emission limits identified in the Drayton Project Approval 06-0202 apply under the following meteorological conditions: - Wind speeds up to 3m/s at 10 metres above ground level; or - Temperature inversion conditions of up to 3 degrees/100m and wind speeds up to 2m/s at 10 metres above ground level.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
9 Noise Model Validation			
9	The Drayton noise model is validated by comparing actual attended noise monitoring data with the predictions made in the noise model under comparable meteorological conditions. In the event that attended monitoring results are higher than those modelled in the 2007 EA, the acoustic consultant will review the results and model inputs to determine the cause of the variation. This includes meteorological data, topographic data, equipment type and locations, and other noise sources in the area.	No evidence was provided to indicate that noise model validation is undertaken.	Administrative non-compliance
9	A review of the noise model validation will be reported on an annual basis in the Drayton AEMR.	No annual validation of the noise model is outlined in the AEMRs.	Administrative non-compliance
10.1 Supplementary Monitoring			
10.1	Drayton staff will undertake supplementary noise monitoring on a fortnightly basis at various times of the day, evening and night. The monitoring will be undertaken at the following representative residences (see Figure 1 below) located within close proximity to Drayton's mine lease boundary: - Doherty residence (Land Number 16) located on Balmoral Road. - Robertson residence (Land Number 72), located on Thomas Mitchell Drive; - Hoarder residence (Land Number 76), located on Thomas Mitchell Drive; - Holloran residence (Land Number 22) located on Pamger Drive; and - De Boer residence (Land Number) located on Pamger Drive.	A review of documentation and interviews conducted by the auditors confirmed that this monitoring is undertaken.	Compliant
10.1	Supplementary Monitoring will be undertaken at the nearest location to the residence and shall be subject to the consent of the resident. The data shall be collected over a 15 minute period and results will be recorded for L_{Aeq}, L_{Amax}, L_{A1}, L_{A10}, L_{A50} and L_{A90}. Monitoring may be paused to exclude extraneous noise from the data set. Relevant meteorological conditions will be recorded at the time of monitoring for each monitoring event to adequately demonstrate the validity of the results.	Results for all the required parameters are not recorded. Noise levels are reported correctly as A-weighted. However percentage of noise is being used to estimate the noise contribution from site. The reported figures are those that have been modified from the original readings. The noise levels do not accurately represent either those that are actually generated by the site, nor the overall noise generated. The problem lies with documentation on how the measurements and assessment of contribution should be made.	Non-compliant
10.1	Further supplementary monitoring will be undertaken if a request is received from a landowner and/or resident in the vicinity of the Drayton operation; or if Drayton receives in excess of three complaints during a shift from three separate and independent sources. This data shall be compared to the real-time monitoring information supplied by the Drayton BarnOwl system.	A review of the site's complaints records and site interviews conducted by the auditors confirmed that these requirements have been complied with. Investigations are undertaken after each complaint.	Compliant

10.2 Attended Noise Monitoring			
10.2	Compliance with the noise assessment criteria will be assessed by an independent acoustic consultant through attended monitoring. This monitoring will be conducted on a monthly basis and will include monitoring during the Evening and Night time periods. Daytime monitoring will be conducted on a quarterly basis. The monitoring will be conducted at five representative residential locations each month and eight locations each quarterly basis (see Figure 2 below): <table><tr><th>Residence</th><th>Land Number</th><th colspan="4">Noise Impact Assessment Criteria ($L_{Aeq,15\ min}$)</th></tr><tr><th></th><th></th><th>Day</th><th>Evening</th><th>Night</th><th>Night $L_{A1\ (1min)}$</th></tr><tr><td>Doherty</td><td>16</td><td>41</td><td>41</td><td>39</td><td>47</td></tr><tr><td>Kerr *</td><td>25</td><td>36</td><td>37</td><td>37</td><td>47</td></tr><tr><td>Wilson*</td><td>35</td><td>35</td><td>35</td><td>35</td><td>45</td></tr><tr><td>Smith*</td><td>42</td><td>35</td><td>35</td><td>35</td><td>45</td></tr><tr><td>Skinner</td><td>61</td><td>39</td><td>40</td><td>39</td><td>45</td></tr><tr><td>Robertson</td><td>72</td><td>36</td><td>37</td><td>42</td><td>47</td></tr><tr><td>Sharman</td><td>75</td><td>35</td><td>35</td><td>41</td><td>47</td></tr><tr><td>Horder</td><td>76</td><td>35</td><td>36</td><td>42</td><td>47</td></tr></table>*Kerr, Wilson and Smith residences to be monitored quarterly	Section 3.10 of the 2012 and 2013 AEMRs and Section 3.11 of the 2014 AEMR includes the noise monitoring results.	Compliant
10.2	The data for the eight monitoring locations is used to model noise levels at 24 other receivers listed in EPL 1323. The monitoring results are provided in a compliance report and are reported in the AEMR.	Section 3.10 of the 2012 and 2013 AEMRs and Section 3.11 of the 2014 AEMR includes the noise monitoring results.	Compliant
10.3 Real Time Monitoring			
10.3	Real-time monitoring at Drayton involves the use of a BarnOwl system. Drayton has two BarnOwls, located at Lot 9 Antiene and Balmoral Road. These provide a representation of the noise levels at a number of Drayton's near neighbours (see Figure 1 below). The system carries out 24 hour directional noise monitoring, and records and maintains noise emission files on a five minute basis. The data and audio files are used in noise investigations initiated in response to community complaints or high level noise. These monitors also send alerts to key personnel in order to respond to elevated levels.	Interviews conducted by the auditors confirmed that this system is in place. Annual calibration of the BarnOwl system is undertaken by SoundScience. It is noted that SoundScience is not NATA accredited, and no standards have been considered. This system should not be used for compliance purposes but is indicative only.	Compliant
10.4 Meteorological Information			
10.4	Drayton monitors local weather conditions using an automatic weather station located on site. Meteorological data including wind sped, wind direction, temperature, rainfall, solar radiation and humidity is collected at five minute intervals. Drayton also monitors for potential inversions using forecasts from Hunter Valley Meteorological Sounding Group portal. Meteorological data allows Drayton employees to assess the prevailing weather conditions and modify the operation where necessary to best suit the current conditions.	A review of documentation and interviews conducted by the auditors confirmed that this monitoring continues to be undertaken.	Compliant
10.4	The Drayton Mining Logistic Coordinators (despatch) monitor real time weather conditions from the Drayton weather station. In the event of a noise complaint, or elevated noise levels, this weather data will be reviewed to assess the possible contribution of weather to elevated noise levels.	A review of documentation and interviews conducted by the auditors confirmed that this process is undertaken.	Compliant
10.4	Prior to carrying out supplementary monitoring Drayton staff review current meteorological data for wind speeds below the 3m/s limit. Once supplementary monitoring is completed meteorological conditions will be recorded on the field sheet for each monitoring event, to adequately demonstrate the validity of the results. Meteorological data will also be recorded alongside the real-time noise data to determine result validity.	A review of documentation and interviews conducted by the auditors confirmed that this process is undertaken.	Compliant
11 Noise Mitigation Measures			
11.1 Proactive Measures			
11.1	Noise mitigation measures which have ben proactively implemented at Drayton include: - Only one loading unit working in the North Pit during the evening or night; - North and East pit trucks dump in shielded locations during evening and night; - North pit pre-strip haul roads are shielded by pit walls or a berm in the direction of residences, during evening and night; - Loading units within the North Pit pre-strip will be located in a shielded area below natural ground surface during the evening and night; - The haul road from the South Pit has been realigned to the lowest possible elevation, wit minimal long straight sections of road directly in line with a residence and effective shielding with earth berms along the sides of the road where possible; and - Mine planning schedules will be developed to ensure no active dumping occurs at exposed locations during adverse weather conditions, where noise can be exacerbated toward neighbouring communities; - Training of coordinators has been undertaken to ensure coordinators are familiar with the complaints response process; - All trucks and the L1400 loader were fitted with noise attenuation mufflers to further reduce noise emissions for these units; - Alternative reversing beepers including Broadband (Quacker) Reverse Alarms have been implemented on trucks, to further reduce noise emissions from these units across site; and - Drayton has installed a second real-time noise monitor, which is located at the end of Balmoral Road.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
11.1	Drayton has implemented several changes to ensure that the noise levels from the rail loadout facility comply with the Industrial Noise Policy. These changes include: - All conveyors leading to the rail load out bins are enclosed; - Trains are loaded using telescopic chute thus minimising freefall distance; - Steel sheeting has been installed at the Rail Load Out and on the northern face of the secondary crusher building; - Noise barricades have been constructed at the northern face at the base of the rail loadout bins; - Incoming and exiting trains shall not utilise horns during the night period (except in case of emergency).	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered

11.2 Reactive Measures			
11.2	**Unattended Monitoring Alert Received** Unattended monitoring alerts will be used from February 2014. These alerts will be generated from data collected at real time directional noise monitors located at Lot 9 and Balmoral Road BarnOwls. The real time system transmits live, directional, low pass noise data to site personnel via the EnviroSys environmental database. Real time noise alerts warn operational personnel of levels that are approaching relevant criterion.	A review of documentation and interviews conducted by the auditors confirmed that this monitoring system is being used.	Compliant
11.2	The real time noise alert system operates in the following manner: A trigger system is maintained for the Drayton BarnOwls during the evening and night. The three stage alarm process is configured as follows: - Green Alert - triggers following two consecutive 15 minute measurements above the Stage One trigger (set 4dB below the impact assessment criteria at the monitoring location). - Amber Alert - triggers following two consecutive 15 minute measurements above the Stage Two trigger (set 2dB below the impact assessment criteria at the monitoring location). - Red Alert - triggers following two consecutive 15 minute measurements above the Stage Three trigger (set at the impact assessment criteria at the monitoring location).	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
11.2	Alarms are received in real time by the Mining Logistics Coordinators (Despatch) and the Environmental Officers. The despatch personnel will contact the Shift Coordinator and/ or the CHP control room to determine the possible source of the noise.	This has not been required during the audit period.	Not Triggered
11.2	Relevant information following receipt of a valid noise alarm will be forwarded to the Shift Coordinator for information/action.	This has not been required during the audit period.	Not Triggered
11.2	An assessment is required following receipt of any trigger to determine the likely contribution of Drayton to the noise environment prior to undertaking any changes to operating conditions.	This has not been required during the audit period.	Not Triggered
11.2	**Complaint Response:** Upon receipt of a compliant from the community, preliminary investigations will commence as soon as practicable to determine the likely cause of the complaint using information such as the prevailing climatic conditions, the nature of activities taking place and monitoring results. Dependent on the nature of the complaint, a Drayton employee may attend the location of the complaint to identify the source of the noise.	A review of the site's complaints records and site interviews conducted by the auditors confirmed that these requirements have been complied with.	Compliant
11.2	A response will be provided to the complainant as soon as practicable, and may include the provision of relevant monitoring data and notification of the mitigation measures implemented. See Figure 2 below for the step by step complaint response process.	A review of the site's complaints records and site interviews conducted by the auditors confirmed that these requirements have been complied with.	Compliant
11.2	Where multiple complaints are received in relation to noise or an enquiry is made regarding noise at a particular residence, attended noise monitoring may be immediately undertaken at or near the complainant's residence. All enquiries and/or complaints are recorded in a complaints/enquiries database and are presented in the AEMR and at CCC.	Review of the site's complaints records and the AEMR confirmed that these requirements are being fulfilled.	Compliant
11.2	In the event that Drayton receives a complaint from a nearby resident that can be attributed to the cumulative impacts of mining, Drayton will notify the Environmental Officer at Mt Arthur Coal. Depending on the weather conditions and general observations the Environmental Officer/s from other nearby mining operations may also be notified.	This has not been required during the audit period.	Not Triggered
11.2	Complaints can be made via the Drayton complaints hotline by calling 1800 814 195 or email at community.drayton@angloamerican.com	A review of the site's complaints records and site interviews conducted by the auditors confirmed that these requirements have been complied with.	Compliant
11.2	**Attended Monitoring Exceedance Protocol:** In situations where attended noise results are identified as exceeding the impact assessment criteria, the following actions will be undertaken: - The acoustic consultant finds there is an exceedance of at least 1dB over a 15 minute period under the relevant noise impact assessment criteria. - The acoustic consultant will notify the mine that an exceedance has been monitored and provide the possible equipment that has led to the exceedance. - The mine will then take action to reduce noise coming from the mine and notify the acoustic exceedance. - The acoustic consultant will then conduct follow up monitoring at the location of the exceedance. - If the follow up monitoring results in an exceedance, the mine will be notified again. - The Environmental Coordinator must be notified of the exceedance as soon as possible. - An investigation will commence to determine the potential causes for the exceedance. - The respective authority will be contacted 24 hours of the exceedance becoming known. - Drayton will prepare a detailed report as a result of the investigation and provide the Director-General, OEH and any other relevant agencies, with the report within 7 days of the incident occurring. - Where the cause is identified, additional controls will be implemented or the operational methods will be altered. - Additional monitoring may be required as a follow up to determine the effectiveness of any corrective actions implemented.	This has not occurred during the audit period.	Not Triggered
11.2	**Cumulative Mining Noise Impacts** Drayton Coal and Mt Arthur Coal both use the Antiene Rail Spur to transport coal from each operation. Noise complaints to Drayton typically involve trains as a common source of noise. In the event that a landowner considers noise from the operations is individually or cumulatively in excess of amenity criteria the following protocol applies: 1. The parties shall jointly consult with the affected landowner to determine the nature of the landowners concerns. 2. The parties will investigate site practices at the respective operations and the Antiene Spur to determine the likely cause of noise emissions from the operations and Antiene Spur to reduce the noise levels at the property within the noise amenity limits. 3. If required, the party will investigate with the landowner any amelioration of noise impacts. 4. If required, attended monitoring will be conducted at the affected residence to determine noise impacts.	This has not occurred during the audit period.	Not Triggered

12 Reporting and Review			
12	Drayton will report on the performance of the Noise Monitoring Program in the Annual Environmental Management Report (AEMR). The AEMR will include: - Noise monitoring results and comparison to performance criteria; - Noise related complaints and management/mitigation measures undertaken; and - Review of the performance of management/mitigation measures and the monitoring program.	Section 3.10 of the 2012 and 2013 AEMRs and Section 3.11 of the 2014 AEMR fulfils these requirements	Compliant
12	The AEMR and monthly summaries of the monitoring results will also be submitted to the CCC and made available for public information on the Drayton website. Presenting results at the CCC will allow committee members to discuss the results and receive further information on exceedances of noise criteria or incidents.	The auditors cited CCC minutes referring to noise monitoring results. The AEMR and monthly summaries of the monitoring results were able to be accessed by the auditors from the Drayton website.	Compliant

Appendix I

Audit Protocol: *Blasting Management and Monitoring Plan* (AngloAmerican, March 2013)

Appendix I Audit Protocol: *Blasting Management and Monitoring Plan* (AngloAmerican, March 2013)

Reference	Requirement	Evidence	Audit Finding
Blasting Management and Monitoring Plan (AngloAmerican, March 2013)			
4.1 Responsibilities			
4.1	**SHE Manager** • Assist in the decision process to fire blasts in adverse weather conditions. • Discuss cumulative impacts with adjacent mines. • Organise property inspections where required.	A review of the blasting sign-off sheet indicates that the SHE Manager is involved in this decision-making by providing sign-off.	Compliant
4.1	**Environment Coordinator** • Assist in the decision process to fire blasts in adverse weather conditions. • Monitor all blasts for both airblast and vibration levels. • Ensure the monitoring system is operational and, if issues arise, deal with them in a prompt and efficient manner. • Calibrate the monitoring system as per specification requirements. • Document all necessary reporting in a prompt and efficient manner and within the timeframes required. • Where relevant, notify private residents of blasting times and any subsequent modifications to blasting times. • Maintain the register of private residents to be notified of blasting times. • Coordinate and ensure the blasting hotline is advertised in local newspapers at least four times per year. • Notify all landowners within 2km of the site that they are entitled to a structura property inspection. If a written request from any of these residents is received, the environmental coordinator shall commission a suitably qualified, experienced and independent person, whose appointment must be approved o by the Director-General. • Implement a blast monitoring programme. • Assist in closure of Thomas Mitchell Drive as detailed in Road Closure Management Plan. • Update the blasting schedule on the Drayton website as required. If any significant changes to the blasting schedule are to occur, the website is to be updated to reflect these changes.	Audit interview with Drill and Blast Engineer suggests that the Environment Coordinator is not involved in this decision making.	Administrative non-compliance
4.1	**Drill and Blast Engineer** • Design, initiate and sequence blasts in such a way as to minimise the risk of a blast exceedance and endeavour to minimise annoyance to neighbours. • Design, initiate and sequence blasts to conform to the requirements of the NSW Dams Safety Committee. • Issue all blast designs that follow Anglo American Standards. • Audit the drill and blast process. • Participate in investigations resulting from incidents as a result from blasting activities. These investigations can be coordinated by the Drill and Blast Engineer in conjunction with other relevant personnel. All incident reporting shall follow the Drayton on site reporting of Incidents procedure. • Consult with independent blasting experts for advice on blast design (delay configuration, tie up and initiation patterns, weather implications etc.) where required. Advice given is to be documented for the respective blast. • Update the blasting hotline daily with up to date information on daily blasting schedule at the mine. • Undertake responsibilities as detailed in Road Closure Management Plan and Fume Management Plan.	Audit interview with Drill and Blast Engineer and review of Engineering Fume Checklist, Pre-blast Checklist and Post-blast Checklist confirmed that these responsibilities are carried out.	Compliant
4.1	**Drill and Blast Crew** • Following the design criteria for blast preparation work. • Following all reasonable instructions from the Drill and Blast Engineer, Drill and Blast Supervisor, Drill and Blast Superintendent and other mining officials. • Communicate variations or anomalies in loading and tie up to the Drill and Blast Supervisor.	Audit interview with Drill and Blast Engineer and review of Engineering Fume Checklist, Pre-blast Checklist and Post-blast Checklist confirmed that these responsibilities are carried out.	Compliant
4.1	**Drill and Blast Supervisor** • Document the environmental blasting checklist and fume rating sheet that is completed for all blasts and is forward to the Environment Coordinator as soon as practical after each blast. • Coordinate the Drill and Blast crew	Audit interview with Drill and Blast Engineer and review of Engineering Fume Checklist, Pre-blast Checklist and Post-blast Checklist confirmed that these responsibilities are carried out.	Compliant
4.1	**Drill and Blast Superintendent** • Oversee the Drill and Blast Supervisor. • See that weather conditions are taken into account before blasts are fired and where needed, consult with the Environmental Coordinator on current and future adverse weather conditions. • Undertake responsibilities as detailed in Road Closure Management Plan and Fume Management Plan. • Participate in any blast related incident investigation.	Audit interview with Drill and Blast Engineer and review of Engineering Fume Checklist, Pre-blast Checklist and Post-blast Checklist confirmed that these responsibilities are carried out.	Compliant
4.1	**Technical Services Superintendent** • Coordinate an independent inspection and complete a surveillance report on the Ash Dam Levee for every blast within the As Dam notification area and any blast that goes above 20mm/s at the Ash Dam Levee monitor. • Supervise the Drill and Blast Engineer.	Section 7.2.1 of the 2012 and 2013 AEMRs and Section 7.3.1 of the 2014 AEMR confirm that these responsibilities are carried out.	Compliant
4.2 Audit/Review Schedule			
4.2	This management plan is to be reviewed at least every three years or as otherwise directed by the Director-General of DoP.	As the previous version of the *Blasting Management and Monitoring Plan* (AngloAmerican, March 2013) was dated 2012, this requirement has been fulfilled.	Compliant

4.2	The review process is to reflect changes in environmental legislation and guidelines, and changes in technology or operational procedures.	The *Blasting Management and Monitoring Plan* (AngloAmerican, March 2013) fulfils these requirements.	Compliant
4.2	The management plan will be reviewed and, if necessary, revised to the satisfaction of the Director-General where there are changes to the blast monitoring programme as a result in changes in mine development or incident investigations.	The *Blasting Management and Monitoring Plan* (AngloAmerican, March 2013) fulfils these requirements.	Compliant
4.2	In accordance with Project Approval (06_ 0202), every three years, Drayton wil commission an independent environmental audit to the satisfaction of Director-General of DoPI. The audit will include an assessment of the adequacy of all management plans. Where necessary, following the audit this management plan may be updated and action taken to improve blasting management practices at Drayton.	The current audit satisfies these requirements.	Compliant
4.3 Records Management			
4.3	All records of blasting details must be kept on file in the SHE department for the duration of the life of mine.	Blast records were requested by and provided to the auditors during the audit period.	Compliant
4.6.3 Compliance Criteria			
4.6.3	The following blasting criteria are applicable to Drayton blasting activities as per Drayton's current Conditions of Consent as issued by the DoPI.		
4.6.3	• Blast times must occur between the hours of 9:00am – 5:00pm Mondays to Saturdays (EST) and 9:00am – 6:00pm Mondays to Saturdays (DST).	On 2 August 2013 at 9:57 pm, a shot was fired in the South Pit. This blast was fired outside approved blasting times due to an error in loading resulting in a non-inhibited product being loaded into reactive ground. Permission to fire outside approved blasting times was sought from the OEH and DP&E. No complaints were received as a result of the blast. A full incident investigation was subsequently undertaken and ten documented corrective actions were completed in consultation with the EPA.	Compliant
4.6.3	• No blasting to occur on Sundays or Public Holidays (without prior written approval of the OEH).	Blasting has not taken place during these times during the audit period.	Compliant
4.6.3	• Blasts must not exceed 115 dB(L) or 5mm/sec for more than 5% of the total number of blasts within the annual reporting period and shall not exceed 120 dB(L) or 10mm/sec at any time at the nearest non mine owned residence.	These criteria have not been exceeded during the audit period.	Compliant
4.6.3	• A maximum of two blasts per day and eight blasts per week averaged over a 12 month period.	These criteria have not been exceeded during the audit period.	Compliant
4.6.3	• If an exceedance of limits specified in the project approval conditions is detected, Drayton shall notify the DoPI and the OEH within 24 hours of the incident. In addition, within six days of notifying these departments, Drayton shall provide each with a written report describing the details of the blast (date, time, nature) and shall describe in detail the cause of the exceedance, actions taken to date and measure to be implemented to address the exceedance and to prevent future occurrences.	These criteria have not been exceeded during the audit period.	Not Triggered
4.6.3	In addition to the consent conditions, the NSW Dams Safety Committee has also placed conditions on the requirements for the management of the Ash Dam Levee where blasting is concerned. These conditions are as follows:		
4.6.3	• An Ash Dam Monitoring Management Plan and Ground Vibration Monitoring Program is to be documented for the Ash Dam.	Blasting at the Site continues to be undertaken in this manner.	Compliant
4.6.3	• Peak particle velocities generated as a result of mining shall not exceed 30mm/s at any point on the dam.	Blasting at the Site continues to be undertaken in this manner.	Compliant
4.6.3	• The DSC to be informed immediately if ground vibration velocities as a result of mining exceed 20mm/sec.	Blasting at the Site continues to be undertaken in this manner.	Compliant
4.6.3	• Monthly reporting to the DSC detailing position of mining face, results of ground vibration monitoring, summary reports of dam inspections, compliance statements and seepage monitoring results.	Blasting at the Site continues to be undertaken in this manner.	Compliant
4.6.3	• All blasts must be monitored at the ash dam levee.	Blasting at the Site continues to be undertaken in this manner.	Compliant
4.6.3	• If a ground vibration level from a blast exceeds 20mm/sec as monitored at the Ash Dam Levee, the level must be inspected for cracking or other damage.	Blasting at the Site continues to be undertaken in this manner.	Compliant
4.6.3	• If a ground vibration level from a blast exceeds 30mm/sec as measured at the Ash Dam Levee, an independent geotechnical assessment of the Ash Dam Levee must be undertaken.	Blasting at the Site continues to be undertaken in this manner.	Compliant
4.6.3 Public Notifications			
4.6.3	Any private landholder within 2km of the project that registers an interest in being informed of the blasting schedule at Drayton shall be notified via telephone, e-mail or as otherwise agreed between the parties.	Interviews with site personnel and a review of site documentation confirmed that these registered landowners continued to be notified.	Compliant
4.6.3	Drayton shall also implement a blasting hotline (02) 6542 0328 that will operate to provide information on the daily blasting schedule. The hotline will be updated as soon as any change to the programme becomes known.	Interviews with site personnel and a review of the Drayton website confirmed that this blasting hotline continues to be operated.	Compliant
4.6.3	The blasting hotline will operate for the life of the project and the contact number will be advertised in local newspapers at least quarterly, and on the Drayton website.	Interviews with site personnel and a review of the Drayton website confirmed that this blasting hotline continues to be operated.	Compliant
4.6.3	Road closure notification boards will be maintained on Thomas Mitchell Drive for any blast that is to occur within 500m of Thomas Mitchell Drive.	Interviews with site personnel and a review of the Drayton website confirmed that road closure continues in this manner.	Compliant
4.6.4 Monitoring Requirements			
4.6.4	Drayton utilise an 'Ecotech - Dynamaster' blast monitoring system. The Environment Coordinator shall ensure this system is calibrated and maintained as per specification of the system at all times.	A review of documentation and the site interviews conducted by the auditors conformed that these commitments are being complied with.	Compliant

4.6.4	All blasts must be monitored for airblast and vibration at locations representative of private residences. All blasts are to be monitored for vibration at both the crest and the toe of the ash dam levee.	This was observed in the monitoring data provided to the auditors during the audit.	Compliant
4.6.4	Monitoring locations are outlined in Figure 1 and have been chosen as they are representative of the most affected residences that are not owned by Drayton. All blasts will be monitored in accordance with AS 2187.2 of 1993.	This monitoring continues to be undertaken.	Compliant
4.6.4	Additional data must also be recorded following each blast. This is responsibility of the Mining Coordinator - Drill and Blast to complete the blasting checklist and forward to the Environment \Coordinator immediately after the blast.	Explosives quantity does not appear to be recorded as per Engineering Fume Checklist, Pre-blast Checklist and Post-blast Checklist, as well as summary of blast monitoring. Based on the summary of blast monitoring provided to the auditors, there were at least six instances during the audit period (2014 and 2015) where blasts did not have a corresponding pre-shot checklist completed.	Administrative non-compliance
4.6.4	Details to be collected include the following: date, wind speed and direction, weather conditions, atmospheric conditions, cloud cover, location of the blast and quantity of explosives used and the fume rating from the blast. These records shall be collected in the Environmental filing system.	Explosives quantity does not appear to be recorded as per Engineering Fume Checklist, Pre-blast Checklist and Post-blast Checklist, as well as summary of blast monitoring. Based on the summary of blast monitoring provided to the auditors, there were at least six instances during the audit period (2014 and 2015) where blasts did not have a corresponding pre-shot checklist completed.	Administrative non-compliance
4.6.5 Mitigation Measures			
4.6.5	Weather conditions must be assessed prior to blasting.	Audit interview with Drill and Blast Engineer and review of Engineering Fume Checklist, Pre-blast Checklist and Post-blast Checklist confirmed how these requirements are met.	Compliant
4.6.5	Consideration must be given to fog, temperature inversions, rainfall or misty conditions under calm or slight southerly winds. If any of these occur, and dependent upon safety issues at the time, blasts may be delayed until conditions improve. This decision shall be carried out by the Drill and Blast Engineer in consultation with the Environment Coordinator, SHE Manager and the Mine Manager.	Audit interview with Drill and Blast Engineer and review of Engineering Fume Checklist, Pre-blast Checklist and Post-blast Checklist confirmed how these requirements are met.	Compliant
4.6.5	If it becomes necessary to blast in adverse weather conditions and it is considered that the blast may concern neighbours and/or risk licence breach then the Mine Manager, SHE Manager and the General Manager must give approval. In some instances the blast may be delayed.	Audit interview with Drill and Blast Engineer and review of Engineering Fume Checklist, Pre-blast Checklist and Post-blast Checklist confirmed how these requirements are met.	Compliant
4.6.5	Drayton also has ongoing management of spontaneous combustion and reactive ground on site. When blasting is to occur in areas affected by spontaneous combustion or reactive ground, the Explosive Management Plan is to be followed.	Audit interview with Drill and Blast Engineer and review of Engineering Fume Checklist, Pre-blast Checklist and Post-blast Checklist confirmed how these requirements are met.	Compliant
4.6.6 Measures To Attain Best Practice Blast Management			
4.6.6	The following practices are in place to manage blasting to minimise airblast levels, ground vibration levels and dust emissions:	Audit interview with Drill and Blast Engineer confirmed how this is undertaken.	Compliant
4.6.6	• Operation of an internal limit upon which an investigation is held should the level be exceeded.	Blasting at the Site continues to be undertaken in this manner.	Compliant
4.6.6	• Drill and blast management system is in place and monitored for effectiveness based on environmental monitoring.	Blasting at the Site continues to be undertaken in this manner.	Compliant
4.6.6	• Employ a full time Drill and Blast Engineer.	The Site continues to employee such a person.	Compliant
4.6.6	• On site training is conducted for site blasting practice familiarisation.	Blasting at the Site continues to be undertaken in this manner.	Compliant
4.6.6	• Drill and blast personnel are trained and accredited to appropriate standards for blast related skills.	Blasting at the Site continues to be undertaken in this manner.	Compliant
4.6.6	• Additional technical training is provided for new products and technical solutions to drill and blast crews in addition to professional personnel.	Blasting at the Site continues to be undertaken in this manner.	Compliant
4.6.6	• Graduate engineers are trained in drill and blast design to support the Drill and Blast engineer.	Blasting at the Site continues to be undertaken in this manner.	Compliant
4.6.6	• Drayton explosive contracts have business improvement initiatives with regard to explosives use and management as part of contracts.	Blasting at the Site continues to be undertaken in this manner.	Compliant
4.6.6	• Drayton utilise the technical expertise of suppliers and blasting consultants for improvements to technology and blast performance.	Blasting at the Site continues to be undertaken in this manner.	Compliant
4.6.6	• Drayton participate in AAMC business wide improvements groups that identify, trial and implement improvements to blast outcomes.	Blasting at the Site continues to be undertaken in this manner.	Compliant
4.6.6	• Drayton use predicted weather forecasting to make decisions about blast times and for use in blast impact modelling.	This forecasting continues to be used at the Site.	Compliant
4.6.7 Remedial Action Measures			
4.6.7	If safety, operational, environmental issues or dam safety concerns result from blasting activities, an investigation is to be undertaken. This shall be coordinated by the Drill and Blast Engineer in conjunction with other relevant personnel. All incident reporting shall follow Drayton's on site Reporting of Incidents Procedure.	Audit interview with Drill and Blast Engineer confirmed how this is undertaken.	Compliant
4.6.7	The Drill and Blast Engineer shall ensure any amendments to the drilling and blasting guidelines following investigations are completed, implemented and documented.	Audit interview with Drill and Blast Engineer confirmed how this is undertaken.	Compliant
4.6.8 Protection Measures			
4.6.8	Several protection measures will be implemented in compliance with our consent conditions and to demonstrate best practice measures. These include:		
4.6.8	• All measures will be implemented to ensure the safety of people and livestock in areas surrounding blasting operations.	Audit interview with Drill and Blast Engineer and review of Engineering Fume Checklist, Pre-blast Checklist and Post-blast Checklist confirmed how these requirements are met.	Compliant
4.6.8	• Blast designs and initiation will be planned to minimise the risk of dust and fume emissions from blasting activities.	Audit interview with Drill and Blast Engineer and review of Engineering Fume Checklist, Pre-blast Checklist and Post-blast Checklist confirmed how these requirements are met.	Compliant

4.6.8	• Blasts will be designed to minimise the impact on any public or private infrastructure or property in areas surrounding blast operations from any damage caused by blasting.	Audit interview with Drill and Blast Engineer and review of Engineering Fume Checklist, Pre-blast Checklist and Post-blast Checklist confirmed how these requirements are met.	Compliant
4.6.8	• Blasting operations will be coordinated with Mt Arthur Coal operations to minimise the potential for simultaneous or cumulative blasting impacts to occur	Audit interview with Drill and Blast Engineer confirmed how this is coordinated with other coal mines in the region, particularly with Mt Arthur coal mine. Sentries are sometimes required to be posted on Mt Arthur land to manage areas of site during Drayton blast events.	Compliant
4.6.8	• Drayton shall not blast within 500 metres of any land that is privately owned o land that is not owned by Drayton unless suitable agreement has been reached with the owner or occupier.	Such approval was obtained prior to the current auditing period. No privately owned land is located within 500 metres of such blasting activities.	Not Triggered
4.6.8	• Separate operating conditions shall exist for the management of blasting in the vicinity of Thomas Mitchell Drive. Refer to section 4.6.10 for more details.	This condition did not require a finding to be made against it.	Not Triggered
4.6.8	• All blasts in relation the Liddell Ash Dam Levee must be designed to minimise ground vibration and meet the requirements of the Dam Safety Committee.	No exceedances of this criterion have occurred during the audit period.	Compliant
4.6.8	• All blasting will be designed to minimise fume and be in accordance with the Drayton Blast Fume Management Plan.	Blast design continues to be undertaken in this manner.	Compliant
4.6.9 Thomas Mitchell Drive Road Closure			
4.6.9	Drayton's consent conditions stipulate that prior to blasting within 500 metres of Thomas Mitchell Drive, a road closure management plan shall be documented and implemented to the satisfaction of the Muswellbrook Shire Council. A road closure management plan and traffic control plan have been implemented for blasting activities within 500m of Thomas Mitchell Drive and are attached in the Appendices.	The *Road Closure Management Plan* (AngloAmerican, November 2013) fulfils these requirements.	Compliant
4.6.10 Integration with Other Mining Operations			
4.6.10	Drayton mine shall coordinate blasting activities with Mt Arthur Coal to minimise the potential for cumulative impacts from both mines. Prior to blasting, Drayton Coal will notify Mt Arthur Coal of the scheduled blasting times and also take into account the Mt Arthur Blasting Schedule to ensure blasting does not occur at similar times.	Audit interview with Drill and Blast Engineer confirmed how this is coordinated with other coal mines in the region, particularly with Mt Arthur coal mine. Sentries are sometimes required to be posted on Mt Arthur land to manage areas of site during Drayton blast events.	Compliant
4.6.11 Enquiries/Complaints Handling			
4.6.11	All environmental enquiries/complaints are handled in accordance with the Community Complaints and Enquiries Procedure.	A review of the complaints register confirmed that complaints are being handled appropriately.	Compliant
4.6.11	Drayton operates a 24 hour environmental hotline. Details of this are contained in the Stakeholder Communication Community Complaints and Enquiries Procedure.	Interviews with site personnel and a review of the Drayton website confirmed that this hotline continues to be operated.	Compliant
4.6.11	All enquiries/complaints are investigated and findings are fed back to the calling party.	This was confirmed through a review of the site's complaints record.	Compliant
4.6.11	Cumulative issues are regularly discussed with other mining operations such as Mt Arthur Coal. This is undertaken by the SHE Manager and the Environment Coordinator.	Audit interview with Drill and Blast Engineer confirmed how this is coordinated with other coal mines in the region, particularly with Mt Arthur coal mine.	Compliant
4.6.12 Residential Property Inspections and Investigations			
4.6.12	All private residents within 2km of the project were be notified in writing within three months from the original project approval date that they are entitled to a structural property inspection.	This has not occurred during the audit period.	Not Triggered
4.6.12	Upon request, the inspection will be performed by a qualified and experienced independent expert that has been approved by the Director-General. This inspection will include an assessment of the condition of the building or structure and recommended measures to mitigate any potential blasting impacts. A copy of the report will be provided to the resident.	Evidence of such inspections carried out at the landowners' request was cited by the auditors.	Compliant
4.6.12	Should any private landholder reasonably claim that buildings and/or structures on their land have been damaged as a result of blasting activities at Drayton, Drayton will commission a property investigation. The investigation will be performed by a qualified and experienced independent expert that has been approved by the Director-General who will investigate the claim. A copy of the report will be provided to the resident following receipt of the report by Drayton.	Evidence of such inspections carried out at the landowners' request was cited by the auditors.	Compliant
4.6.12	If this investigation confirms the landholder's claim, and both parties agree with these findings, Drayton shall repair the damages to the satisfaction of the Director-General. However, if the landholder or Drayton disagrees with the findings of the report, the matter can be referred to the Director-General. If the matter is not resolved within 21 days, it will be referred, by the Director-General, to an Independent Dispute Resolution Process to be resolved in accordance with Drayton's of Project Approval.	This has not occurred during the audit period.	Not Triggered
4.6.13 Blasting Protocol			
4.6.13	The following blasting protocols have been implemented at Drayton in accordance with legislative requirements: • Pre-blast inspections are undertaken to ensure that no persons, property or livestock are at risk from blasting. • Sentries are posted on all access points to ensure that there is no possible access to the blasting exclusion zone. • No blasting will occur within 500m of privately owned property without consultation with relevant landholders. • Prior to carrying out any blasting within 500m of a public road or railway, Drayton will implement the Road Closure Management Plan. • Notification of blasting times will be advertised on Drayton's website, the blasting hotline and roadside signs.	Audit interview with Drill and Blast Engineer and review of Engineering Fume Checklist, Pre-blast Checklist and Post-blast Checklist confirmed how these requirements are met.	Compliant

	• Blast design is undertaken for each blast in order to maximise the blast efficiency, minimise the dust, fumes, vibration and airblast, and ensure compliance with site specific blasting conditions. • Use of adequate stemming, a delay detonation system, and drilling and hole loading standards to ensure that the required blast design is implemented. • Monitoring of blasts to determine whether airblast and ground vibration limits are met. • Review of monitoring results and modification of the blast design, if necessary. • Periodic review of blast management practices to evaluate performance and identify responsive action, if required.		
4.6.14 Reporting Requirements			
4.6.14	Reporting of all environmental performances relating to blasting activities are undertaken by the Environment Coordinator. This forms a component of annual reporting as per Annual Environmental Management Reports (AEMR).	This information has been provided in Section 3.9 of AEMR 2012 and 2013, and in Section 3.10 of AEMR 2014.	Compliant
4.6.14	This report is submitted annually to the OEH, Department of Resources and Energy (DRE), DoPI, DSC and the Muswellbrook Shire Council.	Section 1 of AEMRs 2012, 2013 and 2014 confirms that these parties receive copies of the AEMR.	Compliant
4.6.14	The AEMR will also be placed on the Drayton website annually.	The 2012 AEMR was not made available on the Drayton website during the audit.	Administrative non-compliance
4.6.14	A full summary of blast monitoring results will be placed on the Drayton website on a quarterly basis.	This information was observed on the Drayton website by the auditors during the audit.	Compliant
4.6.14	Blast results are also reported to the Drayton Community Consultative Committee on a quarterly basis where the opportunity to discuss results, exceedances, complaints and management practices takes place.	A review of CCC meeting minutes by the auditors indicated that these requirements are being fulfilled.	Compliant
4.6.14	Vibration results from blast monitoring on the Ash Dam Levee are reported monthly to the Dams Safety Committee.	A review of Ash Dam Levee monthly reports to DSC indicated that these reporting requirements are being fulfilled.	Compliant
4.6.15 Lidell Ash Dam Levee Requirements			
4.6.15	A levee has been constructed on the eastern perimeter to mining operation at Drayton to protect the operational area from Lidell's Ash Dam. The DSC have stipulated specific reporting and management requirements for blasting that occurs within the Ash Dam Notification Area as shown in Figure 2. These requirements are as follows: **Aspect** / **Inspection/ Report** / **Frequency** **Ash Dam Levee** / Blast notification of blasts within Notification Area / Every blast Levee inspection to be conducted / After each blast in notification area Report blast vibrations in excess of 20mm/sec occurring on the ADL Wall to DSC / Immediately Report blast monitoring results (ground vibration) to DSC / Monthly	This notification and monitoring continues to be undertaken.	Compliant
4.6.16 Environmental Blasting Incidents			
4.6.16	Environmental blasting incidents include but are not limited to:	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered
	• An exceedance of 120dB/ and/or 10mm/s recorded at a private residence. • An exceedance of 20mm/s recorded at the Ash Dam Levee. • A blast that results in a fume rating of 4 and above. • A blast that results in environmental harm or has the potential to cause environmental harm. • Damage to a private residence or public infrastructure.		
4.6.16	In the event of an environmental incident that has resulted from a blast or blasting activity, the Incident Reporting and Initial Investigation Management Plan will be followed.	This has not been required during the audit period.	Not Triggered

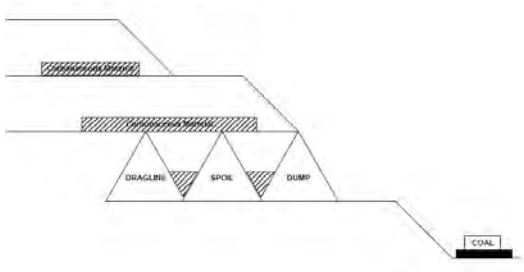
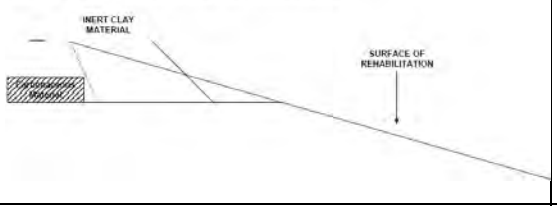
Appendix J

Audit Protocol: *Spontaneous Combustion Management Plan* (AngloAmerican, January 2012)

Appendix J Audit Protocol: *Spontaneous Combustion Management Plan* (AngloAmerican, January 2012)

Reference	Requirement	Evidence	Audit Finding
Spontaneous Combustion Management Plan (AngloAmerican, January 2012).			
4.0 Procedural Requirements			
4.1 Responsibilities			
4.1	**Technical Services** Develop the ongoing mine plan. They are responsible for identifying materials that are more likely to spontaneously combust and suitable inert materials that can be accessed to manage spontaneous combustion.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.1	Technical Services also has the responsibility for design of operations in carbonaceous materials so that off-site impacts are minimised. Planning includes timing of operations, allocation of mining equipment, identification of disposal sites and working methods.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.1	**Specialist Mining Engineer** • Considers spontaneous combustion in the design of mining operations and spoil emplacement areas. • Consults key planning personnel when information is to be forwarded to the Mining Department personnel responsible for managing spontaneous combustion in the field. • If an area is identified as requiring attention through the monthly inspections, the Specialist Mining Engineer shall assist in the development of a management strategy, in consultation with the Environmental Coordinator and the Mining Superintendent, who will then coordinate the strategy to be implemented. • Shall include spontaneous combustion management in annual business planning processes. • Shall prepare designs to have all inert materials correctly placed and not unduly wasted in areas where no spontaneous combustion exists.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.1	**Coal and Partings Engineer** • Coordinate that coal operations conform to the management strategy for spontaneous combustion. • Takes into account the likelihood of spontaneous combustion when preparing all mining plans. • Identifies areas where spontaneous combustion is more likely to occur. These are areas where carbonaceous materials are present in overburden or partings. • Develop plans to enable all materials are correctly disposed of and that carbonaceous materials that are known to spontaneously combust are buried in an appropriate location in the spoil. • Responsible for planning the tipping location of carbonaceous materials. This information will then be passed to the Mining Coordinators through regular planning meetings.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.1	**Mine Surveyor** • Shall verify that plans for final rehabilitation and spontaneous combustion management comply with details pertaining to the current Mining Operation Plan and the current Mine Business Plan.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.1	**Mining Engineer** • Shall design rehabilitation to achieve appropriate final landforms and incorporate appropriate depth and quality of inert capping materials. • Shall liaise with coordinators and operators directly to coordinate the correct implementation of rehabilitation design. • Shall implement measures and record the type and depth of cover of materials applied as inert capping on final landform surfaces. • Shall accounts for and audit the use of inert materials mined in the mining operation so as to monitor the appropriate use of this resource. • Shall liaise with the Environmental Coordinator regarding the progress of rehabilitation.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.1	**Mining Department** Shall follow any instruction from Technical Services as to the correct emplacement, reshaping, battering and covering of suspect material. Ongoing communication shall also occur on a regular basis regarding the spontaneous combustion management strategy by all relevant key personnel. The Mining Department shall also coordinate the use of water carts.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.1	**Mine Manager** • Shall be responsible for implementing final landform design in the pit.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.1	With regards to mining activities in areas of spontaneous combustion that may have the potential to cause off-site concerns, the DECC and DPI shall be advised prior to such operations commencing. This responsibility lies with the Mine Manager in consultation with the SHE Manager.	This has not occurred during the audit period.	Not Triggered
4.1	**Overburden Superintendent** • Shall coordinate mining activities to minimise spontaneous combustion outbreaks. • Manages any outbreaks or potential outbreaks as required.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.1	**Mining Coordinators** • Notifies the Overburden Superintendent of any significant outbreaks that have been discovered to enable an action plan to be developed to manage such outbreaks. • Coordinate the correct emplacement and handling of carbonaceous material in accordance with this plan. • All carbonaceous material will be placed in selected areas within the tip. These shall be track-rolled, if appropriate, and covered with inert material as soon as practical. This strategy will progress in benches until the tip reaches its final design height. • Complies with hot material safe job procedures when working in spontaneous combustion.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant

4.1	**Coal Handling & Processing Superintendent** • Monitors coal at the product stockpiles for spontaneous combustion. • Maintains all records on the age of the stockpiles. These records will include starting date, origin, type of coal, coal quality and reclaim date. • Responsible for the coordination of remedial actions as required and may include the following: - Dig out localised hot spots. Spreading the coal into thin layers to cool. - Re-circulating the coal stockpiles by picking up and relocating the coal via the reclaiming and conveyor system. This dissipates the heat. Note: This practice will be closely monitored as the hot coal may damage or set fire to the coal handling equipment. Water sprays located at transfer points manage this satisfactorily; however, fire-fighting equipment may need to be on standby. • Maintains all records if remedial action becomes necessary.	Interview with CHP Superintendent confirmed that the Coal Quality System database is used to record information about each stockpile.	Compliant
4.1	**SHE Manager** • Consults with the Mine Manager with regard to notification to the DECC and DPI relating to mining activities in areas of spontaneous combustion that may have the potential to cause off-site concerns.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.1	**Environmental Coordinator** • Shall completes six monthly reports to the OEH and any other reporting requirements required by relevant authorities. • Shall undertake monthly assessments of areas of spontaneous combustion outbreaks including monthly inspections, mapping of areas affected, remediation areas and intensities. • Shall maintain a series of plans indicating areas where spontaneous combustion is known to have occurred. These plans will be used for the purpose of identifying areas of known heating for future remediation and rehabilitation. • Shall maintain all data on emissions from spontaneous combustion monitoring. This information consists of total areas affected, severity classification, field observations, technical data collected on spontaneous combustion emissions and remedial works carried out. • Shall monitors any final rehabilitation and determines what actions are required if any spontaneous combustion is detected.	Examples of the six monthly reports fulfilling these requirements were cited by the auditors. The auditors also cited the relevant energy records relating to spontaneous combustion.	Compliant
4.2 Audit/Review Schedule			
4.2	Drayton's Spontaneous Combustion Management Plan will be updated every three years. The SHE Department will be responsible for conducting this review.	Given that the previous version of the Spontaneous Combustion Management Plan (AngloAmerican, January 2012) was dated June 2008, it can be concluded that this commitment has not been complied with.	Administrative non-compliance
4.3 Records Management			
4.3	All reports, revisions, audits and associated materials shall be kept within the SHE Department.	The relevant records were able to be provided to the auditors.	Compliant
4.6 Prevention and Management of Spontaneous Combustion			
4.6.1	**Placement in Pit** Carbonaceous material is only to be placed against the high wall with prior approval of the Mine Manager and only after the placement of an effective barrier of inert material against the exposed coal.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.6.1	**Residual Low Wall Rib Coal** Residual rib coal is to be fully mined where safe and practical (the rib may sometimes be left to help maintain spoil pile stability).	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.6.1	**Carbonaceous Materials** The following alternatives can be used to manage carbonaceous materials. Each of these will prevent air - and hence oxygen ingress - into the material: · Cover with inert material · Reshape batters to enhance movement of air over surface (rather than through) and provide some sealing through compaction.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.6.1	**Outbreaks of Spontaneous Combustion** Any person observing spontaneous combustion is to report the outbreak to the Mining Coordinators. The Mining Coordinators, in consultation with the Overburden Superintendent, will develop and implement a suitable field action plan for immediate action.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.6.1	Typically, actions considered take into account: · Risk review to personnel, environment, community and operations · Immediate mine planning issues · Short term mining constraints · Availability of inert material for coverage · Accessibility to the area · Degree of outbreak – area affected	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.6.1	Actions implemented in the past have included: · Immediate capping (where available) · Track rolling and reshaping to a rounded profile · Spread out and track roll if possible · Reshape spoil batters to reduce potential airflow through spoils · Relocating dumping schedules to specific areas within the emplacement area · Continual monitoring of areas where actions have been implemented.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.6.1	Significant outbreaks however shall be reported to Technical Services for incorporation into medium and longer term plans and to the SHE department for recording on the site plans.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.6.2	**Product Coal** In order to reduce the risk of spontaneous combustion, as a general rule a "first in-first-out" principle for managing the age of the stockpiles is maintained. Experience at Drayton has been that, provided product stockpiles are moved within six weeks, spontaneous combustion generally does not occur.	This was noted, however the audit did not require a finding to be made against this commitment.	Not Triggered
4.6.2	**Responsibility** The Coal Handling & Processing Superintendent monitors the coal at the product stockpiles for spontaneous combustion.	Interview with CHP Superintendent confirmed that the Coal Quality System database is used to record information about each stockpile.	Compliant

4.6.2	**Records** The Coal Handling & Processing Superintendent maintains records on the age of stockpiles. These records include starting date, origin, type of coal, coal quality and reclaim date.	Interview with CHP Superintendent confirmed that the Coal Quality System database is used to record information about each stockpile. However the CHP Superintendent does not maintain written records of stockpile age, advised that this is managed by the Logistics Manager.	Compliant
4.6.2	**Temperature monitoring** Stockpile monitoring involves a daily visual inspection of each coal stockpile. This visual inspection involves a walk around the stockpile looking for heat-haze, smoke emissions or an odour of spontaneous combustion.	Interview with CHP Superintendent confirmed that stockpiles are visually monitored and checked for odour as signs of spontaneous combustion. A thermal camera is then used if required to monitor the risk of spontaneous combustion occurring in stockpiled materials.	Compliant
4.6.2	**Use of water** Water will only be used with caution as water ingress increases segregation and heating, aids oxygen penetration and can increase the magnitude of the problem. As a general rule, water is only to be used on flames and only in small amounts. When applying water it will be sprinkled rather than jetted onto the material. However, if it is possible to isolate the affected coal then water may be used, provided the coal could be saturated. This will then eliminate spontaneous combustion.	Interviews with site personnel confirmed that spontaneous combustion continues to be managed in this manner.	Compliant
4.6.3	**ROM coal** Experience at Drayton has been that provided ROM coal is relocated within six to eight weeks, spontaneous combustion generally does not occur.	This was noted, however the audit did not require a finding to be made against this commitment.	Not Triggered
4.6.3	The Coal and Parting Superintendent or Production 8 shall regularly inspect the ROM stockpiles. If spontaneous combustion is detected, inspection frequencies are increased to daily and actions will be implemented and documented to control the situation.	Interview with CHP Superintendent confirmed that stockpiles are visually monitored and checked for odour as signs of spontaneous combustion. A thermal camera is then used if required to monitor the risk of spontaneous combustion occurring in stockpiled materials.	Compliant
4.6.3	**Outbreak of Spontaneous Combustion** If self-heating of coal becomes evident, the following remedial actions will be taken. · Recirculation of stockpiles where available · Water can be added to cool the stockpile, however, previous comments (Section 4.6.2) on water addition at product stockpiles will also be taken into account.	Interviews with site personnel confirmed that spontaneous combustion continues to be managed in this manner.	Compliant
4.6.4	**Spoil (waste) Piles** If outbreaks occur in inaccessible areas, management of these areas involves visual monitoring prior to developing accesses into the areas for remediation works to be undertaken. If outbreaks occur in readily accessible areas, these access problems are not encountered and remediation can be planned and undertaken with minimal changes to operations at the time.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.6.4	Several factors have been identified over time, as being the most appropriate management tools to be utilised in reducing active spontaneous combustion or self heating of areas. These include the following: · Battering of spoil piles where practical to reduce angles and increase compaction · Reducing dump and stockpile heights to reduce size segregation · Dumping truck spoil on dragline spoil to achieve improvement in sealing · Degree of surface compaction - (low dump height produces greatest compaction) · Planning spoil dumps so that inert material is dumped over the top of carbonaceous materials · Increasing topsoil so soil organisms will increase oxygen · Uptake at the surface of spoil and reduce oxygen ingress into spoil · Topsoil handling to maximise biological values is important in achieving optimum re-vegetation and maximum depletion of oxygen · Increasing the degree of re-vegetation. Stability of spoil is important in maintaining coherence of surface protection layers. This also reduces oxygen ingress.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
	Figure 1: Typical dumping in dragline spoil  Figure 2: Typical dump profile using self-heated material  		

4.6.5	**Inert Material Handling** Inert material will be identified prior to mining in an area commencing. Any materials determined to be inert will be disposed of in relation to the management of active spontaneous combustion areas. Ideally, this material will be placed directly onto active areas; however, if areas are not available within the current mine schedule this material may be stockpiled for future utilisation. The Senior Mining Engineer, in consultation with the SHE department, will assess all areas prior to rehabilitation for the degree of inert material emplacement. A program will then be developed to deliver the required inert material and to undertake the reshaping required in preparation for final rehabilitation.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation works are generally being undertaken onsite according to these requirements.	Compliant
4.7 Rehabilitation			
4.7.1	**Final Rehabilitation** The Senior Mining Engineer shall be responsible for the planning of final landform design. The Mine Manager will implement the final landform design in the pit. The Mine Surveyor will then verify that final landform contours conform to those approved in the Mining Operation Plan (MOP).	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation works are generally being undertaken onsite according to these requirements.	Compliant
4.7.1	The Mining Coordinators shall coordinate the correct emplacement and handling of carbonaceous material in accordance with this plan. All carbonaceous material will be placed in selected areas within the tip. These shall be track rolled, if appropriate, and covered with inert material as soon as practical. This strategy will progress in benches until the tip reaches its final design height.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.7.1	When the tip has reached final level, a final capping of inert material shall be used to cover areas where the risk of spontaneous combustion is present. The Mining Coordinators shall coordinate the delivery of the required topsoil (to a depth of 10cm) to the area for rehabilitation whilst also adhering to Drayton's Mining Operation Plan Approval requirements. This shall be undertaken in consultation with the Environment Coordinator dependent upon final land use of the area.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.7.1	The SHE Department shall be responsible to coordinate earthworks such as diversion banks, and will also organise the sowing of the area with suitable seed for re-vegetation. The SHE Department shall also monitor any final rehabilitation and determine what actions are required if any spontaneous combustion is detected.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.7.2	**Long Term Rehabilitation** Long Term rehabilitation is designed to eliminate the incidence of spontaneous combustion. To date, spontaneous combustion is not evident in any areas previously rehabilitated. If at any stage in the future however, any outbreaks are recorded, then the following process will be applied.	Section 3.14 of the AEMR 2013 and Section 3.15 of the AEMR 2014 identify how this was undertaken for previous rehabilitation at the South West Tip area.	Compliant
4.7.2	The Mine Surveyor will survey the area. The Senior Mining Engineer in consultation with the Environment Coordinator, Overburden Superintendent and the Mine Manager, will develop a management strategy. The Mine Manager will then coordinate the implementation of the strategy. The ongoing effectiveness of the strategy will be monitored by the SHE Department.	A review of documentation and the site inspection conducted by the auditors confirmed that rehabilitation is generally being undertaken onsite according to these requirements.	Compliant
4.7.2	Historically, areas previously affected by spontaneous combustion have been capped with inert material prior to reshaping. During the reshaping process, this capping has typically been sufficient to reduce airflow into spoil areas. Whilst capping depths may vary down slope, the focus for capping will be on the batters as this has been the key areas identified as to being more prone to spontaneous combustion. Areas on crests have a higher natural compaction and are less likely to be affected. Following the reshaping process, water diversion structures have been implemented to redirect water flows down slope and to minimise the risk of erosion. Final vegetation is dependent upon the performance history of the area. Pastures are commonly utilised for side slopes as these also assist in reducing the impact of erosion. Trees are typically only established where spontaneous combustion has not been evident previously. Additionally, it can be easily identified that if remediation work is required into the future, access to pasture areas are more readily available and less intrusive then remediation in areas where trees have been established.	A review of documentation and the site inspection conducted by the auditors confirmed that reshaping works are generally being undertaken onsite according to these requirements.	Compliant
4.7.3	**Inert Materials Handling** Inert materials are an important resource utilised for the prevention and control of spontaneous combustion. Typically the inert material found at Drayton consists of weathered sandstones and heavy clays. When being applied, generally these materials are compacted thus enhancing their effectiveness.	This was noted, however the audit did not require a finding to be made against this commitment.	Not Triggered
4.7.3	During the mining process, available inert material is known, well in advance of mining, and the overall destination for the material can be defined and delivered to the most appropriate location for the control of spontaneous combustion. Not all material is applicable to all areas, however, as more clay based material is preferred to for surface locations in preparation for rehabilitation processes.	This was noted, however the audit did not require a finding to be made against this commitment.	Not Triggered
4.7.3	Drayton undertook inert balances in 2002 and 2007, with this model being recently updated in 2011, which entailed determining future inert materials availability based on current geological models and future mining plans. Materials that have been deemed non-combustible were tabulated (Table 1) with available inerts being determined for each strip of the future mining operations. This then allows for future planning for the emplacement of such materials to implement appropriate uses for these valuable materials. This balance is progressively updated to allow for any usages and modifications to the balance are made where necessary.	The Mining Operations Plan (1 July 2015 to 30 June 2020) (Anglo Coal, 2015) fulfils these requirements.	Compliant
4.7.3	The current rehabilitation plan requires a total of 12 million LCM to the point of final rehabilitation. A buffer of 19.6 million LCM is therefore available for additional spontaneous combustion control measures within existing emplacement areas.	This was noted, however the audit did not require a finding to be made against this commitment.	Not Triggered
4.8 Working in Areas of Spontaneous Combustion			
4.8	Handling material that is self-heated can create dust levels that have the potential to create health, safety and environmental risks on the site. During operations in areas affected by active spontaneous combustion, refer to the Operations Mining Safe Job Procedure "Working in and around material affected by spontaneous combustion" for operating procedures.	This was noted, however the audit did not require a finding to be made against this commitment.	Not Triggered

4.8	With regard to mining activities in areas of spontaneous combustion that may have the potential to cause major offsite concerns, the DECC and DPI shall be advised prior to such operations commencing. This responsibility lies with the Mine Manager, in consultation with the S&SD Manager.	This has not occurred during the audit period.	Not Triggered
4.9 Greenhouse Gases			
4.9	Greenhouse gas emissions are calculated on a monthly basis by the SHE Department from data collected in relation to usage of diesel, electricity and explosives and the estimated emissions due to active areas of spontaneous combustion.	These energy records were cited by the auditors.	Compliant
4.9	Calculations are based on direct and indirect emissions. Direct emissions are calculated on the consumption and usages of diesel, electricity and explosives against the National Greenhouse Account (NGA) factors calculation for each product. These are calculated and reported internally to Anglo Coal Australia on a monthly basis.	These energy records were cited by the auditors.	Compliant
4.9	Indirect or fugitive emissions from spontaneous combustion are considered to a high uncertainty however previous research conducted by the CSIRO at Drayton have produced indicative emission factors based on the characteristics of the spontaneous combustion. Quarterly assessments are conducted to determine the characteristics of each area of spontaneous combustion, upon which the CSIRO factors are then applied, to ascertain the monthly emissions.	These energy records were cited by the auditors.	Compliant
4.9	Drayton has been reporting emissions to the Australian Greenhouse office, utilising the emission factors relevant to each product and spontaneous combustion calculations. These emission factors have been used for reporting.	These energy records were cited by the auditors.	Compliant
4.10 Monitoring			
4.10.1	**Dust** Licence conditions require that dust levels be minimised at all stages of the operation. The statutory maximum dust levels for Drayton Mine are as follows: Table 4: Dust monitoring statutory maximum levels Type / 24 Hour Period / Annual Dust Fallout / - / 4 g/m².month Suspended Dust (TSP) / 150 µg/m³ / 90 µg/m³ Suspended Dust (PM_{10}) / 50 µg/m³ / 30 µg/m³	No exceedances of these criteria have occurred during the audit period.	Compliant
4.10.1	All dust monitoring at Drayton is carried out to Australian Standards AS3580.10.1 - 2003 and AS2724.5-1987. The Environment Coordinator is responsible for monitoring dust levels in accordance with Drayton's DECC Licence.	This monitoring continued to be undertaken during the audit period.	Compliant
4.10.2	**Gas** SHE Department personnel monitor gas emissions during the handling of spontaneous combusting material, in particular carbon monoxide and hydrogen sulphide emissions. Greenhouse gas emissions are estimated on a monthly basis from visual emissions with reference to previous CSIRO / ACARP research (Carras J.N., Day S and Williams D.J. (1998)). This technique, whilst very subjective, is the best method of assessment available at this time based on fugitive emission calculations.	These energy records were cited by the auditors.	Compliant
4.10.2	Personal Air Samplers and gas detectors are worn by operators when directed by either the SHE Department or the Overburden Coordinator.	This was noted, however the audit did not require a finding to be made against this commitment.	Not Triggered
4.11 Records			
4.11	Drayton has maintained air quality monitoring records since before the commencement of mining operations in 1983. This data is maintained in a database in the Safety & Sustainable Development Department. The SHE Department also maintains gas-monitoring results.	These records were able to be provided to the auditors during the site visit.	Compliant
4.12 Community Consultation			
4.12	Drayton has established a formal link with the Muswellbrook Community through the formation of the Community Consultative Committee. This committee meets quarterly to review operations and plans to ensure appropriate health, safety and environmental safeguards are in place. Spontaneous combustion is one issue that is regularly raised and discussed in order to keep the community aware of Drayton's management techniques employed to control the issue. Aspects of spontaneous combustion discussed include odours, smoke and rehabilitation of areas affected previously by spontaneous combustion.	Relevant CCC meeting minutes were cited by the auditors.	Compliant
4.12	Consultation has also been undertaken with the Department of Primary Industries, Muswellbrook Shire Council, Department of Environment and Climate Change and the NSW Department of Planning.	This was noted, however the audit did not require a finding to be made against this commitment.	Not Triggered
4.13 Statutory Reporting			
4.13	Drayton has regularly reported on the Environmental Performance of the mine since 1982. Each year an Annual Environmental Management Report (AEMR) is prepared detailing the progress of mining and rehabilitation and providing monitoring data for weather, water quality, dust levels, noise levels and blasting impacts as per specific requirements issued by consent and approval conditions.	The 2012, 2013 and 2014 AEMRs fulfil these requirements.	Compliant
4.13	The Environment Coordinator is responsible for reporting the current status of spontaneous combustion to the OEH in accordance with Drayton's Environmental Licence. This includes: · Monthly maps of areas affected by spontaneous combustion. These are compiled through a monthly visual assessment. · Six monthly reporting of areas remediated during the previous period. These are compiled through the monthly visual assessment and daily dumping location schedules. · Monthly inspections of the mining operations. · Compilation of monthly action plans.	Examples of the six monthly reports fulfilling all these requirements were provided to the auditors.	Compliant
4.13	Monthly maps are produced for the NSW OEH to indicate areas affected by spontaneous combustion. A visual assessment is conducted with observations including area visually affected and emission characteristics are also recorded, such as white / blue smoke, surface cracking, sulphur deposition, naked flame etc.	Examples of the six monthly reports fulfilling all these requirements were provided to the auditors.	Compliant

4.14 Research			
4.14	If the CSIRO wish Drayton to participate in future research, Drayton will consider each project on its merits and applicability to Drayton. Details of participation in research will be included in the AEMR.	This has not been required during the audit period.	Not Triggered
4.15 Odours Management			
4.15	If Drayton receives enquiries from the public on such occasions, the issues will be discussed with the enquirer.	A review of the site's complaints records and site interviews conducted by the auditors confirmed that these requirements have been complied with.	Compliant
4.16 Complaints Handling			
4.16	If a complaint or enquiry is received, it is immediately investigated. Details such as complainant name, contact details, nature of concern, date, time and method of receival are recorded. While details of the enquiry vary depending on the nature and source of the enquiry, the following actions may result: • Confirmation of whether the complainant would like the matter raised as a complaint or an enquiry • Identify further details which may assist in determining the cause of the complaint • Carry out an inspection of the site or conduct an assessment of monitoring results to identify the source • Identify if there is a non compliance with any consent or licence condition • Identify, where necessary and practical, methods to manage the source of the complaint and minimise the chance of a recurrence or further complaints.	A review of the site's complaints records and site interviews conducted by the auditors confirmed that these requirements have been complied with.	Compliant
4.16	A follow up call is also made to the complainant after which time, all details pertaining to the incident are known and corrective actions have been determined to manage the issue.	A review of the site's complaints records and site interviews conducted by the auditors confirmed that these requirements have been complied with.	Compliant
4.16	All enquiries and/or complaints are recorded in an enquiries database and are presented in the AEMR.	A review of the site's complaints records and site interviews conducted by the auditors confirmed that these requirements have been complied with.	Compliant

Appendix K

Audit Protocol: *Air Quality Management and Monitoring Plan* (AngloAmerican, November 2013)

Appendix K Audit Protocol: *Air Quality Management and Monitoring Plan* (AngloAmerican, November 2013)

<table>
<tr><th>Reference</th><th>Requirement</th><th>Evidence</th><th>Audit Finding</th></tr>
<tr><td colspan="4">Air Quality Management and Monitoring Plan, November 2013 (Anglo Coal (Drayton Management) Pty Ltd)</td></tr>
<tr><td colspan="4">4 PROCEDURAL REQUIREMENT</td></tr>
<tr><td colspan="4">4.1 Responsibilities</td></tr>
<tr><td>4.1</td><td>Environment Coordinator
The Environment Coordinator shall be responsible for monitoring and recording all air quality parameters related to Anglo American's Drayton Mine and associated Antiene Rail Spur. They shall ensure all air quality monitoring and analysis is undertaken in accordance with the relevant Australian Standard. The Environmental Coordinator is also responsible for supplying technical information regarding air quality issues and to assist in managing air quality at the Anglo American Drayton Mine and Antiene Rail Spur. The Environmental Coordinator is authorised to direct the modification or ceasing of works if environmental harm has occurred or is likely to occur.</td><td>A review of documentation and interviews conducted by the auditors confirmed that these requirements are being carried out.</td><td>Compliant</td></tr>
<tr><td>4.1</td><td>Safety, Health and Environment (SHE) Manager
The SHE Manager shall ensure that all regulations relating to Air Quality at the Anglo American Drayton Mine operation are adhered to.</td><td>A review of documentation and interviews conducted by the auditors confirmed that these requirements are being carried out.</td><td>Compliant</td></tr>
<tr><td>4.1</td><td>Mining Manager
The Mining Manager shall ensure all mining equipment is operated to minimise dust emissions and shall also ensure all procedures and regulations are followed regarding the management of dust emissions. The Mining Manager shall ensure that there are sufficient resources to manage dust and those resources are allocated to dust management as required.</td><td>A review of documentation and interviews conducted by the auditors confirmed that these requirements are being carried out.</td><td>Compliant</td></tr>
<tr><td>4.1</td><td>Mining Superintendent
The Mining Superintendents shall ensure all operators are aware of dust issues and shall ensure dust emissions are managed appropriately within the mining operation.</td><td>A review of documentation and interviews conducted by the auditors confirmed that these requirements are being carried out.</td><td>Compliant</td></tr>
<tr><td>4.1</td><td>Mining Supervisors / Open Cut Examiners
Mining Supervisors shall monitor visual dust levels within the operation and respond to dust alerts triggered by real time dust monitors. Under Drayton's dust TARP, mining supervisors will ensure that all dust control measures are fully operational at all required times. Mining Supervisors shall modify or cease dust generating activities as required.</td><td>A review of documentation and interviews conducted by the auditors confirmed that these requirements are being carried out.</td><td>Compliant</td></tr>
<tr><td>4.1</td><td>Maintenance Superintendent
The Maintenance Superintendent shall ensure all maintenance is scheduled and undertaken in a prompt and efficient manner on all equipment related to the minimisation of dust on equipment.</td><td>The auditors saw evidence of plant and equipment being subject to work orders for both scheduled maintenance and ad hoc repairs under the Elipse SQL system. Overall, plant and equipment at the site appeared to be maintained and operated in good working order during the site visit.</td><td>Compliant</td></tr>
<tr><td>4.1</td><td>Coal Handling Plant Supervisors
Coal Handling Plant Supervisors shall monitor the visual dust levels within the CHP area and implement dust mitigation measures as required.</td><td>A review of documentation and interviews conducted by the auditors confirmed that these requirements are being carried out.</td><td>Compliant</td></tr>
<tr><td colspan="4">4.2 Audit/Review Schedule</td></tr>
<tr><td>4.2</td><td>This management plan shall be subject to a review every three years or as otherwise directed by the Director-General. It may also be reviewed as a result of findings from independent audits or in light of any significant changes, both operational and procedural to the approved Environmental Assessment. The SHE Manager shall be responsible for coordinating such reviews.</td><td>Given that the previous version of the Air Quality Management and Monitoring Plan (AngloAmerican, November 2013) was dated December 2009, it cannot be concluded that this requirement was complied with during the audit period.</td><td>Administrative non-compliance</td></tr>
<tr><td colspan="4">4.3 Records Management</td></tr>
<tr><td>4.3</td><td>All records of monitoring details required under this management plan will be kept on file in the SHE department for a period of not less than four years following measurement.</td><td>Relevant records were able to be provided to the auditors during the site visit.</td><td>Compliant</td></tr>
<tr><td>4.3</td><td>Analysis data is entered into the Drayton Environmental Database. Data entry is the responsibility of the Environment Coordinator.</td><td>The auditors observed evidence of the compliance tracking system Enableon being used onsite to manage non-compliances, etc.</td><td>Compliant</td></tr>
<tr><td colspan="4">4.6 Air Quality Objectives and Targets</td></tr>
<tr><td>4.6</td><td>It is Drayton's objective that air quality shall be managed to a level that does not cause harm to the environment or community. Drayton will manage its operations to remain within air quality compliance criteria as listed in section 4.8 – Statutory Requirements. It is Drayton's Target to reduce dust emissions through the implementation of effective mitigation measures and controls.</td><td>This was noted, however the audit did not require a finding to be made against these requirements.</td><td>Not Triggered</td></tr>
<tr><td>4.6</td><td>Annual Targets
The following targets indicate the levels not to be exceeded at any residence, on privately owned land or on more than 25% of any privately owned land. An assessment of the analysis of monitoring data against these criteria will be included in Drayton's Annual Environment Management Report.
Table 1: Long Term Impact Assessment Criteria for Particulate Matter
<table><tr><th>Pollutant</th><th>Criterion</th><th>Agency</th></tr><tr><td>Total Suspended Particulate Matter (TSP)</td><td>90µg/m³ (annual goal)</td><td>NSW DoPI</td></tr><tr><td>Particulate Matter <10µm (PM_{10})</td><td>30µg/m³ (annual goal)</td><td>NSW DoPI</td></tr></table>Table 2: Short Term Impact Assessment Criteria for Particulate Matter
<table><tr><th>Pollutant</th><th>Criterion</th><th>Agency</th></tr><tr><td>Particulate Matter <10µm (PM_{10})</td><td>50µg/m³ (24 hr average)</td><td>NSW DoPI</td></tr></table>Table 3: NSW DoPI Long Term Impact Assessment Criteria for Deposited Dust
<table><tr><th>Pollutant</th><th>Averaging Period</th><th>Maximum Increase in Deposited Dust Levels</th><th>Maximum Total Deposited Dist Level</th></tr><tr><td>Deposited Dust</td><td>Annual</td><td>2g/m²/month</td><td>4g/m ²/month</td></tr></table>(Dust is assessed as insoluble solids as defined in AS 3580 10.1-2003 (AM-19))</td><td>These criteria were not exceeded during the audit period, as outlined in Section 3.1 of the 2012, 2013 and 2014 AEMRs</td><td>Compliant</td></tr>
</table>

<table>
<tr><td colspan="4">4.9 Current Control and Mitigation Measures</td></tr>
<tr><td>4.9</td><td>Drayton is committed to managing dust emissions by implementing operational controls that are necessary to assist in the management of emissions that may have adverse impacts on air quality. Some of the measures outlined below are long term strategies such as progressive rehabilitation and dumping and topsoil stripping practices. The following measures are used at Drayton to control air emissions:

Table 4: Air Quality Control Measures and Implementation Program

<table>
<tr><th>Measure</th><th>By When</th><th>By Who</th><th>Current Status</th></tr>
<tr><td>Implement available measures to keep visible dust as low as possible from offsite at all times</td><td>Immediate and ongoing</td><td>Mine Manager</td><td>Implemented and ongoing</td></tr>
<tr><td>Topsoil clearing restricted to a single strip ahead of mining, where practical</td><td>Immediate and ongoing</td><td>TES Manager</td><td>Implemented and ongoing</td></tr>
<tr><td>Overburden drills are equipped with equipment to minimise dust generation (water injections facilities)</td><td>Immediate</td><td>Mine Manager</td><td>Current drills fitted with dust suppression.</td></tr>
<tr><td>Water tankers to be utilised at all times to minimise dust emissions from roads and work areas</td><td>Immediate and ongoing</td><td>Mine Manager</td><td>Water trucks to be used at all times that dust suppression is required.</td></tr>
<tr><td>Overburden is dumped in low level lifts, with outer berms maintained by dozers</td><td>Immediate and ongoing</td><td>Mine Manager</td><td>Implemented and Ongoing</td></tr>
<tr><td>Dragline operations are conducted to minimise dumping height so there is minimal freefall of material</td><td>Immediate and ongoing</td><td>Mine Manager</td><td>Implemented and ongoing</td></tr>
<tr><td>Blasting is carried out using gravel stemming which contains blast within the ground and minimises dust</td><td>Immediate and ongoing</td><td>Mine Manager / Drill & Blast Coordinator</td><td>Implemented and ongoing</td></tr>
<tr><td>The CHP is operated with dust suppression sprays at the dump hopper, transfer points and over product stockpiles.</td><td>Immediate and ongoing</td><td>Coal Handling and Processing Plant Manager</td><td>Implemented and ongoing.</td></tr>
<tr><td>Rehabilitation of mined areas is progressively achieved</td><td>Immediate and ongoing</td><td>TES Manager / Mine Manager</td><td>Rehabilitation targets set annually based on MOP and internal Anglo requirements. Areas are reported in AEMR.</td></tr>
<tr><td>In known or suspected high dust areas, production processes are modified to ensure effective management of visible dust levels</td><td>Immediate and ongoing</td><td>Mine Manager</td><td>Implemented and ongoing. Mining Coordinators actively manage air quality emissions daily.</td></tr>
<tr><td>Operations are to be modified and/or ceased when visible dust emissions are unsatisfactory</td><td>Immediate and ongoing</td><td>Mine Manager</td><td>Mining coordinators and superintendents assess visual emissions and modify or cease operations as necessary.</td></tr>
<tr><td>Trial usage of a chemical dust suppressant on a section of Haul Road.</td><td>2013</td><td>Mine Manager</td><td>Consultation with suppressant companies.</td></tr>
<tr><td>Dust sprays used over train wagons to reduce dust emissions in transit.</td><td>2013</td><td>CHP Manager</td><td>Current scoping of project with design work occurring.</td></tr>
<tr><td>Dust suppression sprays on the ROM</td><td>2013</td><td>Coal and Partings Superintendent</td><td>Implemented and on-going.</td></tr>
<tr><td>Monitoring of air quality emissions</td><td>Immediate and ongoing</td><td>Environment Coordinator</td><td>Monitoring program underway. Data and analysis reported in AEMR</td></tr>
</table></td><td>The site visit conducted by the auditors confirmed that the site continues to be managed according to these requirements.</td><td>Compliant</td></tr>
<tr><td colspan="4">4.10 Proactive and Reactive Management of Air Quality</td></tr>
<tr><td>4.10</td><td>Drayton coal mine currently proactively forecast periods where air quality may be impacted due to mining operations. This is currently being conducted through the use of weather forecast derived from the Hunter Valley Meteorological Sounding Group that Drayton is a member. Drayton receives the predicted wind speed, wind direction and temperature for 23 different heights above the surface up to 1760m for each hour of the day at Drayton. This information, together with added forecasting parameters from an external consultancy such as rainfall, is assessed on a regular basis and operational decisions can be made taking into account this information.
Drayton also use 'EnviroSuite' software to provide action alerts when;
1. Unfavourable weather conditions are forecasted at Drayton.
2. Real time dust monitors exceed predefined triggers.</td><td>Envirosuite was demonstrated while the auditor's were on site and was shown to be integrated into the site's planning systems.</td><td>Compliant</td></tr>
<tr><td>4.10</td><td>Drayton has a number of PM10 real time dust monitors. These units provide feedback of real time PM10 dust levels to the Drayton operation where employees can monitor the data and make operational decisions based on this real time data. If PM10 dust levels exceed predefined triggers over a 30 minute period and the operation is causing the elevated dust levels, the Mining Operations Supervisor will be notified. The Mining Operations Supervisor will then assess visible dust within operational work areas to determine the appropriate course of action to reduce dust levels. The appropriate courses of action include those listed in Table 4 with specific consideration to modifying and/or ceasing activities.</td><td>A review of documentation and interviews conducted by the auditors confirmed that the site continues to be managed according to these requirements.</td><td>Compliant</td></tr>
<tr><td>4.10</td><td>Alerts sent to relevant employees are based on a Trigger Action Response Plan (TARP). At the time of writing the triggers for this TARP are still being calibrated.</td><td>Interviews with site personnel confirmed that these actions take place, however they are not yet documented in the Plan.</td><td>Compliant</td></tr>
<tr><td>4.10</td><td>The Upper Hunter Air Quality Monitoring Network (UHAQMN) will be used to assess regional PM10 dust levels and to identify areas of high dust levels based on wind direction. Drayton relies on the UHAQMN Muswellbrook unit to monitor the PM2.5 levels in the local area. The Muswellbrook unit is approximately 8km from the Drayton operation and is the closest PM2.5 monitor to Drayton. Alerts from this monitor are sent to several staff at Drayton including the Safety Health Environment Manager and Environmental Coordinator who can investigate the potential impacts from the Drayton operation.</td><td>Section 3.1.2 of the 2013 and 2014 AEMRs demonstrate how these requirements are fulfilled.</td><td>Compliant</td></tr>
<tr><td></td><td>Complaints that are received in relation to air quality are managed as outlined in section 4.16.</td><td>A review of the site's complaints records and site interviews conducted by the auditors confirmed that these requirements have been complied with.</td><td>Compliant</td></tr>
</table>

<table>
<tr><td colspan="4">4.11 Equipment Availability and Utilisation</td></tr>
<tr><td>4.11</td><td>Anglo American Drayton Mine utilises various methods of dust suppression. These can include:
Three mobile water tankers for use on haul road dust suppression.
Drills have water injection facilities.
CHP dust suppression sprays operate on stockpiles, conveyors and transfer points.
Transportable water sprays that are moved around the operation in dust prone areas.
Two smaller water carts designated for light vehicle roads, CHP roads and park up areas.
Portable water sprays used to soak dusty material prior to excavation</td><td>A review of the site's complaints records and the site visit conducted by the auditors confirmed that these requirements have been complied with.</td><td>Compliant</td></tr>
<tr><td>4.11</td><td>In periods of elevated dust levels and prior to forecast adverse weather conditions, all available watercarts will be utilised for dust suppression activities on haul roads, work areas and non-active areas of disturbance. Non-active areas of disturbance includes unused dumps, areas cleared of topsoil, stockpile areas, unvegetated rehabilitation areas.</td><td>A review of the site's complaints records and the site visit conducted by the auditors confirmed that these requirements have been complied with.</td><td>Compliant</td></tr>
<tr><td>4.11</td><td>Maintenance on watercarts will be scheduled where possible on night shift when evaporation rates and temperatures are reduced. Where the schedule allows, maintenance on watercarts will be conducted during periods of wet weather where possible.</td><td>A review of the site's complaints records and the site visit conducted by the auditors confirmed that these requirements have been complied with.</td><td>Compliant</td></tr>
<tr><td colspan="4">4.12 Monitoring</td></tr>
<tr><td>4.12</td><td>Air quality monitoring shall continue based on the current network of monitoring locations. A combination of dust fallout gauges, high volumes air samplers and real time monitoring currently monitor dust levels in areas surrounding the Drayton operation. Air quality monitoring currently focuses on the northern areas of Drayton as these are the nearest privately owned lands not used for heavy industry. On the western side of Drayton is the Mt Arthur open cut coal mine and to the east and south are Macquarie Generation's Liddell and Bayswater power stations. Baseline monitoring and Environmental Assessment modelling have concentrated to the north of the operation to reflect near neighbours and current monitoring continues to reflect this.</td><td>The auditors inspected a number of the monitoring locations and viewed the online monitoring system which was operating. 3 of the 4 units were down at the time of the audit due to storm damage, however this was rectified before the close of the audit. Evidence of normal operation was shown in recent records.</td><td>Compliant</td></tr>
<tr><td>4.12</td><td>In addition, Drayton also operates an automatic weather station, which updates current weather conditions on a five-minute basis. This station complies with the requirements of the Approved Methods for Sampling of Air Pollutants in New South Wales guidelines. Real time information is downloaded to a central computer file, whereby information can be utilised to assist in the day-to-day operational issues as well as long-term analysis of environmental data.</td><td>During the current audit, the meteorological stations onsite were inspected and observed to be operating correctly. However the site was not able to provide relevant calibration records to confirm this for one of the meteorological stations.</td><td>Administrative non-compliance</td></tr>
<tr><td>4.12</td><td>All data is analysed and presented at Community Consultative Committee meetings and in Drayton's Annual Environment Management Report.</td><td>The auditors cited CCC minutes referring to air quality results. Section 3.1 of the 2012, 2013 and 2014 AEMRs also fulfils these requirements.</td><td>Compliant</td></tr>
<tr><td>4.12</td><td>Table 1 below provides a summary of the dust monitoring equipment illustrated in Figure 1.
<table><tr><th>Monitor</th><th>Averaging Period</th><th colspan="2">Coordinates East:South</th><th>Purpose</th></tr><tr><td>2197</td><td>Monthly</td><td>150°54'30.24"</td><td>32°19'40.90"</td><td>Background deposition</td></tr><tr><td>2235</td><td>Monthly</td><td>150°55'3.34"</td><td>32°19'23.18"</td><td>Resident dust deposition</td></tr><tr><td>2247</td><td>Monthly</td><td>150°55'30.28"</td><td>32°19'19.16"</td><td>Resident dust deposition</td></tr><tr><td>2157</td><td>Monthly</td><td>150°55'37.97"</td><td>32°19'49.97"</td><td>Background deposition</td></tr><tr><td>2208</td><td>Monthly</td><td>150°55'41.20"</td><td>32°19'33.55"</td><td>Resident dust deposition</td></tr><tr><td>2230</td><td>Monthly</td><td>150°56'4.324"</td><td>32°19'21.34"</td><td>Resident dust deposition</td></tr><tr><td>2175</td><td>Monthly</td><td>150°56'11.11"</td><td>32°19'31.24"</td><td>Resident dust deposition</td></tr><tr><td>2130</td><td>Monthly</td><td>150°56'46.88"</td><td>32°19'50.60"</td><td>Background deposition</td></tr><tr><td>Lot 22</td><td>24 hours</td><td>150°55'3.852"</td><td>32°19'10.42"</td><td>TSP at Residence</td></tr><tr><td>TEOM</td><td>10 Minutes</td><td>150°56'7.897"</td><td>32°19'49.41"</td><td>PM_{10} in Antiene Estate</td></tr><tr><td>E-Sampler 1</td><td>10 Minutes</td><td>150°54'40.02"</td><td>32°20'13.47"</td><td>Operational PM_{10} levels</td></tr><tr><td>E-Sampler 2</td><td>10 Minutes</td><td>150°55'49.71"</td><td>32°20'53.74"</td><td>Operational PM_{10} levels</td></tr><tr><td>E-Sampler 3</td><td>10 Minutes</td><td>150°55'8.708"</td><td>32°21'33.09"</td><td>Operational PM_{10} levels</td></tr><tr><td>E-Sampler 4</td><td>10 Minutes</td><td>150°56'9.991"</td><td>32°22'26.02"</td><td>Operational PM_{10} levels</td></tr></table></td><td>This monitoring continues to be undertaken.</td><td>Compliant</td></tr>
<tr><td>4.12</td><td>Dust Fallout Monitoring
Monthly dust fallout monitoring is undertaken in and around the Drayton's mining operation and the Antiene subdivision to the north of the site. A network of eight (8) gauges exist in the Antiene area to assess air quality impacts on the Antiene subdivision, directly to the north of the mine lease and are collected as a component of Drayton's Environmental monitoring program on a monthly basis. Dust deposition gauges at Drayton will be used as supplementary monitors to provide long term trends.</td><td>The auditors inspected a number of the dust gauges. The gauges are operating correctly and being reported appropriately in accordance with requirements.</td><td>Compliant</td></tr>
<tr><td>4.12</td><td>Suspended Dust Monitoring
Suspended dust monitoring is also undertaken as per the NSW EPA 6 day cycle program. Drayton has one high-volume air sampler in operation in the Antiene subdivision measuring total suspended particulates (TSP). Total suspended particulate monitoring is undertaken as per Australian Standard 3580.9.3 - 2003 at locations detailed in Figure 1.</td><td>The audit site inspection confirmed the monitoring station is in the correct location and sited as per the description. The sampler was operating correctly and data is being reported appropriately in accordance with requirements. Run sheets were viewed and appear to be operating correctly in accordance with the Australian Standard. Staff could not provide calibration certificates during the audit site visit. It is recommended that a document control system be implemented for storage of calibration certificates.</td><td>Compliant - Recommendation Made</td></tr>
<tr><td>4.12</td><td>The Lot 22 HVAS will be used as a supplementary monitor to sample TSP levels at a residential property on Balmoral Road.</td><td>Review of documentation and interviews conducted by the auditors confirmed that this is operating as required.</td><td>Compliant</td></tr>
<tr><td>4.12</td><td>All data is analysed and presented in Drayton's Annual Environment Management Report (AEMR).</td><td>Section 3.1 of the 2012, 2013 and 2014 AEMRs fulfil these requirements.</td><td>Compliant</td></tr>
<tr><td>4.12</td><td>Real Time Air Quality Monitoring
A TEOM (tapered element oscillating microbalance) is in operation in the Antiene area at Lot 9 to continuously monitor air quality in the community. This unit measures PM10 concentrations in real time and feeds the information back to the Drayton operation where it is monitored and assessed. Results of daily PM10 levels will be presented to the Drayton Community Consultative Committee and provided in the AEMR. This unit is used to assist in operational decision making as outlined in section 4.10.</td><td>This monitoring and reporting continues to be undertaken. CCC minutes referencing air monitoring results were cited by the auditors, and Section 3.1 of the 2012, 2013 and 2014 AEMRs contains relevant analysis of these results.</td><td>Compliant</td></tr>
</table>

4.12	Drayton has 4 E-Samplers that measure PM10 levels around the open cut pit. These monitors have been situated upwind and downwind of the operation in consideration of dominant wind directions. As a result, these monitors provide Drayton with the ability to assess the operations contribution to dust levels in the region. The real time data from the E-Samplers is uploaded into a software package along with real time weather data, to provide alerts when Drayton's contribution to dust levels is unacceptable. The trigger levels that determine unacceptable levels will initially be reviewed every 2 months as the system is being calibrated, and then on a quarterly basis.	3 of the 4 units were down at the time of the audit due to storm damage. However this was rectified before the close of the audit. Evidence of normal operation was shown in recent records.	Compliant
4.12	The location of the e-samplers will be reviewed every 6 months or as required as the mining operations change to ensure they provide realistic data that is representative of the dust levels around Drayton.	The location of mined areas has not changed so as to warrant changed location of e-samplers. As such, this has not been required during the audit period.	Compliant
4.12	**Baseline Monitoring** Anglo American Drayton Mine's environmental monitoring program dates back to the late 1970s, with some current monitoring locations having in excess of 30 years monitoring data available for comparison. This detail is available for baseline and trending analysis to determine long-term variations and trends for dust emissions. Baseline data for the eight fallout gauges, high volume air sampler and TEOM results, all located in the Antiene area are shown in the following graphs. The sites depicted in the above graphs show seasonal variations of dust levels over an extended period. Linear trends are also shown on each graph. Drayton will continue to compare ongoing dust emissions with these graphs and the following table to determine ongoing trends as the mine continues to progress.	Section 3.1 of the 2012, 2013 and 2014 AEMRs fulfil these requirements.	Compliant
4.13 Reporting of and Effectiveness of Air Quality Management System			
4.13	On a monthly basis, air quality results will be reported publicly on the Anglo American Australia website.	These monitoring results were able to be accessed by the auditors from the Drayton website.	Compliant
4.13	On a quarterly basis, air quality data will be presented to the Drayton Community Consultative Committee where committee members have the opportunity to discuss the results and receive further information on exceedances of air quality criteria or incidents.	The auditors cited CCC minutes referring to air quality results.	Compliant
4.13	On an annual basis, reporting of air quality monitoring forms a component of Drayton's Annual Environment Management Report (AEMR), which is then forwarded to all relevant authorities. All results of monitoring and analysis shall be included in the AEMR. Within the AEMR the effectiveness of the air quality management system will also be discussed. If there are areas for improvement within the system, these will be outlined within the AEMR.	Section 3.1 of the 2012, 2013 and 2014 AEMRs fulfil these requirements.	Compliant
4.13	This report also evaluates and reports on compliance with air quality impact assessments and land acquisition criteria in approval conditions. The Environment Coordinator is responsible for compiling all of these reports.	Section 3.1 of the 2012, 2013 and 2014 AEMRs fulfil these requirements.	Compliant
4.13	Anglo American have internal audits on a periodic basis. The findings of Air Quality and dust audits will go towards assessing the effectiveness of the existing air quality management system. Audit findings that refer to air quality will be included into "Enablon" where they can be tracked and managed.	Auditors sighted evidence of air quality components of annual internal audits being undertaken.	Administrative non-compliance
4.15 Meteorological Monitoring			
4.15	Drayton has operated an onsite meteorological station since 1981. This system operates on a wireless network and reports temperature, relative humidity, wind speed and direction and rainfall on a 5 minute basis. Data is summarised and is incorporated in onsite assessments for blasting, air quality, noise and blasting and is reported in the Annual Environment Management Report.	This monitoring and reporting continues to be undertaken.	Compliant
4.16 Complaints Handling			
4.16	In the event that a complaint or enquiry is received regarding air quality, it is immediately investigated. Details such as complainant name, contact details, nature of concern, date, time and method of receival are recorded.	A review of the site's complaints records and site interviews conducted by the auditors confirmed that these requirements have been complied with.	Compliant
4.16	While details of the enquiry vary depending on the nature and source of the enquiry, the following actions may result: Confirmation of whether the complainant would like the matter raised as a complaint or an enquiry. Identify further details which may assist in determining the cause of the complaint. Carry out an inspection of the site or conduct an assessment of monitoring results to identify the source. Identify if there is an exceedance or non compliance with any consent or licence condition. Identify, where necessary and practical, methods to manage the source of the complaint and minimise the chance of a recurrence or further complaints.	A review of the site's complaints records and site interviews conducted by the auditors confirmed that these requirements have been complied with.	Compliant
4.16	Upon receiving the complaint, a Drayton employee will call the complainant to discuss the details of the complaint. This information is recorded and used to investigate the source of the air quality complaint. A follow up call is also made to the complainant after which time, all details pertaining to the incident are known and corrective actions have been determined to manage the issue.	A review of the site's complaints records and site interviews conducted by the auditors confirmed that these requirements have been complied with.	Compliant
4.16	All enquiries and/or complaints are recorded in an enquiries database and are presented on a quarterly basis at the Drayton Community Consultative Committee as well as on an annual basis in the AEMR.	The auditors cited CCC minutes referring to air quality results. Section 4.1 of the 2012, 2013 and 2014 AEMRs also contains a summary of complaints received.	Compliant
4.17 Handling Exceedances			
4.17	If an exceedance of approval conditions or environment protection licence conditions occurs, the protocol follows that Drayton shall report the exceedance to the Department of Planning and Infrastructure and the Environmental Protection Agency as soon as the exceedance is known. A reportable exceedance will be a measured dust level that exceeds the air quality impact assessment criteria that is in the Drayton Development Consent 06_0202 as outlined in section 4.8.	This has not occurred during the audit period.	Not Triggered
4.17	An internal investigation will be undertaken and findings will be forwarded to the two departments within 6 days of the initial notification. The exceedance will be captured in the Anglo American Safety Management System „Enablon" and added as an environmental incident. Incident investigation details will be uploaded to „Enablon" with corrective actions assigned to individuals tracked until completion. Details of any exceedance will also be included in the AEMR.	This has not occurred during the audit period.	Not Triggered

4.18 Cumulative Impacts of Mining Operations			
4.18	In the event that Drayton receives a complaint from a nearby resident that can be attributed to the cumulative impacts of mining, Drayton will notify the Environmental Officer at Mt Arthur and dependent on weather conditions and visual observations the Environmental Officer/s from other nearby mining operations.	A review of documentation and interviews conducted by the auditors confirmed that the site continues to be managed according to these requirements.	Compliant
4.18	In circumstances where Drayton's dust monitors, weather station and/or a visual inspection identifies the likely source of elevated dust levels to be coming from a nearby mining operation, then Drayton will notify that mines environmental officer/s.	A review of documentation and interviews conducted by the auditors confirmed that the site continues to be managed according to these requirements.	Compliant

Appendix L

Audit Protocol: *Water Management Plan* (Anglo Coal, November 2009)

Appendix L Audit Protocol: *Water Management Plan* (Anglo Coal, November 2009)

Reference	Requirement	Evidence	Audit Finding
Water Management Plan, November 2009 (Anglo Coal (Drayton Management) Pty Ltd)			
5 PROCEDURAL REQUIREMENT			
5.1 Responsibilities			
5.1	**Environment Coordinator** Coordinate monitoring and reporting as required by approval and licence conditions. The Environment Coordinator shall analyse all data, in conjunction with relevant authorities where appropriate, and report all data as required to do so.	A review of documentation and the site interviews conducted by the auditors confirmed that these requirements are generally being carried out.	Compliant
5.1	**S&SD Manager** Coordinate all responsibilities outlined in this plan are undertaken as described.	A review of documentation and the site interviews conducted by the auditors confirmed that these requirements are generally being carried out.	Compliant
5.1	**Mining Superintendent** Coordinates the activities of the Drayton pump crew	A review of documentation and the site interviews conducted by the auditors confirmed that these requirements are generally being carried out.	Compliant
5.1	**Mine Manager** Coordinate water management across Drayton mining area adheres to this procedure and that no off-site discharges occur. Also supervise investigations related to water management that are undertaken and actions arising from these investigations are completed.	A review of documentation and the site interviews conducted by the auditors confirmed that these requirements are generally being carried out.	Compliant
5.1	**CHP Superintendent** Shall coordinate water management regarding the coal handling plant and coal treatment unit. The CHP Superintendent shall review tailings and water management and shall direct coal plant operators in the management of water and tailings to the sedimentation ponds and throughout the coal handling plant.	A review of documentation and the site interviews conducted by the auditors confirmed that these requirements are generally being carried out.	Compliant
5.2 Audit/Review Schedule			
5.2	This procedure shall be subject to a review every three years and in consultation with the relevant government agencies. The S&SD Manager shall be responsible for such reviews.	Given that the latest version of the Water Management Plan is dated November 2009, it can be concluded that this commitment has not been complied with.	Administrative non-compliance
5.2	This procedure has been prepared in consultation with Parsons Brinkerhoff (see Appendix 3), the DECCW and NOW. All correspondence received from the authorities shall be maintained and stored by the Environment Coordinator.	Relevant correspondence with the authorities was able to be provided to the auditors during the site visit.	Compliant
5.3 Records Management			
5.3	All records of monitoring details must be kept on file in the S&SD department for the life of the mine. All analysis data must be entered into the Environmental Database. This is the responsibility of the Environmental Coordinator.	Relevant monitoring records were able to be provided to the auditors during the site visit.	Compliant
5.5 References and Relationship With Other Environmental Documentation			
5.5	Drayton is currently being issued with Water Access Licences by the NSW Office of Water.	The site continues to hold water licences.	Compliant
5.6 Legislative Requirements and Regulations			
5.6	No contaminated water can be discharged off-site under any circumstances; consequently, it must be stored or used on site. The licence conditions state that the licensee also must not pollute waters.	No such discharge has occurred during the audit period.	Compliant
5.6	It is also a licence requirement to keep rainfall records and other meteorological records. Records relating to monitoring required by the DECCW must be maintained in a legible form for a minimum of three years after the event that was monitored. Records shall be maintained within the S&SD database system.	Relevant monitoring records were able to be provided to the auditors during the site visit.	Compliant
5.6	Under the NSW Dams Safety Act 1978, the DSC requires owners of all prescribed dams in NSW to organise the preparation and submission to the Committee of surveillance reports in respect of their dams (Section 5.6.6 ACDWMP). These must be undertaken at specific intervals not exceeding five years. The Committee's requirements for these surveillance reports vary according to the height and hazard rating of a dam. Although the committee requires these reports at regular intervals, it has been emphasised that regular inspections of the dam should be made at frequent intervals and at times of unusual events (e.g. flooding, earthquakes). Drayton has two structures listed under the Dams Safety Committee: the Access Road Dam (Dam 2081) and the Liddell Ash Dam Levee.	As reported in Section 7.2.2 of the 2012 and 2013 AMERs, and Section 7.3.2 of the 2014 AEMR, the most recent surveillance report for the Access Road Dam was undertaken in 2010, and the next one will be due in 2015. An example of an annual surveillance report for the Liddell Ash Dam report from 2014 was also provided to the auditors.	Compliant
5.6	The NSW Office of Water administers the licensing of dams and bores. Drayton will be progressing updating of water licences to water access licences as part of project approval conditions.	The site continues to hold water licences.	Compliant
5.6	Drayton currently holds water licences (20BL111869 and 20BL122620), which relates to the extraction of groundwater through bores. Drayton is currently applying for a water access licence. Details pertaining to this licence will be included in the first revision of this plan. Drayton applied for water access licences in 2008, however these are still to be received from the NSW Office of Water.	The site continues to hold water licences.	Compliant
5.6.1 Site Water Balance			
5.6.1	Drayton's water management system is based on a closed system, as Drayton does not possess a discharge licence. All mine water is stored on site in established dams and voids and is utilised by the mining operation primarily for coal processing and dust suppression purposes.	A review of documentation and the site visit conducted by the auditors confirmed that the site continues to be managed this way.	Compliant
5.6.1	The water balance is revised annually and is presented as part of the Annual Environmental Management Report (AEMR).	Section 2.8.1 of the 2012, 2013 and 2014 AEMRs fulfils this requirement.	Compliant

5.6.1	A summary of the water balance predictions from the Drayton Environmental Assessment is presented in Table 1 below.	This was noted, however the audit did not require a finding to be made against this point.	Not Triggered
	Table 1: Predicted Site Water Balance **Water Balance** / **Annual Water Volume (ML)** / **Year 5** / **Year 10** Dry / Average / Wet / Dry / Average / Wet **Water Supply Sources** Pit water Surface Water Run-off: 515 / 780 / 1000 / 410 / 620 / 795 Groundwater Inflow: 815 / 815 / 815 / 980 / 980 / 980 Industrial Area Run-off: 90 / 140 / 175 / 85 / 125 / 160 Rehabilitated Area Run-off: 80 / 120 / 155 / 95 / 145 / 185 Dam Catchments: 145 / 215 / 285 / 135 / 205 / 265 Sub-Total: 1640 / 2065 / 2425 / 1705 / 2075 / 2385 **Water Demands** Dust Suppression Haul Roads: 600 / 600 / 600 / 300 / 300 / 300 Coal Stockpiles: 50 / 50 / 50 / 25 / 25 / 25 Industrial Use: 400 / 400 / 400 / 200 / 200 / 200 Coal Handling Plant: 600 / 600 / 600 / 130 / 130 / 130 Evaporation Losses: 370 / 330 / 280 / 370 / 325 / 275 Sub-Total: 2020 / 1980 / 1930 / 1025 / 980 / 930 **SURPLUS (DEFICIT)**: **(380) / 85 / 495 / 680 / 1095 / 1455**		
5.6.1	As shown in Table 1, in Year 5 with a Dry Year rainfall and evaporation, the water balance would be in a deficit of approximately 380 ML. Given the extensive quantity of on site storage capacity and that under average rainfall conditions, a surplus of 85 ML is predicted to be experienced, it is highly probably that this deficit would be able to be sourced from on site storages.	This was noted, however the audit did not require a finding to be made against this point.	Not Triggered
5.6.1.1 Sources and Security of Water Supply			
5.6.1.1	Drayton, unlike many other mines in the Upper Hunter, sources all of it's water internally from within the existing mining operational area, rather than direct extraction from the Hunter River. Drayton historically has an excess of water availability and this is predicted to continue throughout the future mining operations.	This was noted, however the audit did not require a finding to be made against this point.	Not Triggered
5.6.1.1	Groundwater is expected to be a dominant water supply to the site water balance. The groundwater impact assessment undertaken for inclusion in the Drayton Environmental Assessment predicted rates of groundwater inflows ranging from 2.2 ML/day in Year 5 to 2.7 ML/day in Year 10.	This was noted, however the audit did not require a finding to be made against this point.	Not Triggered
5.6.1.3 Water Management System			
5.6.1.3	Surface water is currently managed using a series of mine water dams for water storage. There are no clean water catchments located on site and as such, no clean water storages are required.	A review of documentation and the site visit conducted by the auditors confirmed that the site continues to be managed this way.	Compliant
5.6.1.3	A summary of the main water storage dams and their capacities, supply sources and uses are provided in the Table 2. Table 2 Existing Mine Water Storage Dams **Reference No.** / **Dam Names** / **Storage Capacity (ML)** / **Supply Source** / **Water Use** 1969 / Industrial Dam / 750 ML / Runoff from rehabilitated area, industrial areas and East Pit / Haul road dust suppression, industrial wash down water and supply to Dam 2081 2081 / Access Road Dam / 750ML / Runoff from undisturbed and rehabilitated land and pumping in from Industrial Dam / Industrial areas, CHP and fire system 2114 / Rail Loop Dam / 18ML / Runoff from CHP, coal stockpile area and fine rejects settling ponds, and direct pumping from Access Road Dam / Transfer to MAC or Industrial Dam 1609 / Savoy Dam / 140ML / Runoff from undisturbed and rehabilitated land, SW Void transfer point / Mine water storage or transfer to tanker fill stations SW13 Void / West Pit Void / 1000ML (est) / This storage is a key buffer storage for wet weather a source of water in dry weather and contains a large volume of water which is otherwise unaccounted for in the system / Key storage for Drayton and Mt Arthur Coal. This location will be available for both Drayton and Mt Arthur Coal to extract water from during the life of the mine. TOTAL / / 2658ML / /	This was noted, however the audit did not require a finding to be made against this point.	Not Triggered
5.6.1.3	One dam at Drayton is listed with the NSW Dam Safety Committee under the provisions of the Dams Safety Act 1978, that being 2081 (Access Road Dam). As required by the listing of this dam with the Dam Safety Committee, an annual surveillance report is undertaken and submitted.	The most recent surveillance report for the Access Road Dam was undertaken in 2015, prior to that, the previous report was undertaken in 2010. It can be noted that the DSC's requirement for these reports has always been on a five-yearly basis rather than annually.	Administrative non-compliance
5.6.1.3	In addition to this report, detail on the status of this dam and a summary of the surveillance report is included in Drayton's AEMR.	As reported in Section 7.2.2 of the 2012 and 2013 AMERs, and Section 7.3.2 of the 2014 AEMR, the most recent surveillance report for the Access Road Dam was undertaken in 2010, and the next one will be due in 2015. A copy of this report was provided to the auditors. As such, this has not been required to be summaries in the AEMRs during the audit period.	Not Triggered

5.6.1.4 Off-site Water Transfers			
5.6.1.4	Drayton does not have a licence to discharge mine water off site under the POEO Act (1997) from the DECCW, however credits are retained under the Hunter River Salinity Trading Scheme (HRSTS) for water trading purposes. However Drayton does have a water sharing arrangement with Mt Arthur Coal (MAC) to transfer up to 600ML of excess mine water to the neighbouring MAC mine. This water is transferred via pipeline from Drayton to Mt Arthur Coal. Recorded volumes of transfers are contained in Drayton's AEMR.	While the 2012, 2013 and 2014 AEMRs reiterate the fact that Anglo Coal is licensed to supply water to Mt Arthur, no volume of water transferred to Mt Arthur Coal was provided in any of these AEMRs.	Administrative non-compliance
5.6.1.5 Minimisation of Water Use			
5.6.1.5	Potable water is transferred via underground pipes to the site. Potable water is utilised as human consumption and bathing water. Potable water is monitored on a monthly basis, and is minimised where possible through conscious monitoring and maintenance activities.	Section 2.8.3 of the 2012 AEMR and Section 2.8.1 of the 2013 and 2014 AEMRs outlines this usage.	Compliant
5.6.2 Erosion and Sediment Control			
5.6.2	Erosion and sediment control structures at Drayton have been designed to be consistent with the objectives and targets as outlined in Managing Urban Stormwater: Soils and Construction Manual (Landcom 2004 or previous versions). Historically erosion and sediment control structures have been designed and constructed by the NSW Department of Lands on areas of rehabilitation. These structures are reviewed annually by the Department of Industry and Investment (DII) from details supplied in Drayton's AEMR. Further, the DII completes annual inspections of the operation to confirm any issues that need to be addressed.	The previous audit found the site not to be compliant with the Managing Urban Stormwater: Soils and Construction Manual, mainly due to the lack of sufficient information in the erosion and sediment control section of the *Water Management Plan* (Anglo Coal, November 2009). Given that the Water Management Plan has not been updated since, it can be concluded that these requirements are still not being met.	Administrative non-compliance
5.6.2.2 Sediment Control Measures			
5.6.2.2	Control measures at Drayton begin with topsoil stripping by limiting the extent of disturbance ahead of mining operations. Surface runoff is collected in established dams downstream of disturbed areas. These structures have been designed and constructed to hold rainfall runoff from a 1 hour 1 in 10 Average Recurrence Interval rainfall event in accordance to the requirements of Landcom (2004).	A review of documentation and the site visit conducted by the auditors confirmed that the site continues to be generally managed according to these requirements.	Compliant
5.6.2.2	With regard to rehabilitation areas, control measures are implemented to improve stability and prevent surface erosion from occurring. These consist of graded banks (typically 1-1.5% slope, 3-5m basal width, 1-1.5m height) on rehabilitated areas with level spreaders (typically 5m wide). During the construction phase of rehabilitation, sediment control and water management structures are designed by the Department of Lands in accordance with Landcom (2004).	A review of documentation and the site visit conducted by the auditors confirmed that the site continues to be generally managed according to these requirements.	Compliant
5.6.2.2	The DII undertake an annual inspection of rehabilitation and disturbed areas to identify issues that need to be addressed. This entails inspections, interviews with key personnel and reviewing of documentation against pre defined mining operation plans of rehabilitation and mine progression status, including the effectiveness and status of water and sediment management structures. The issues raised during this inspection and the actions taken are reported in the AEMR.	These inspections are reported in the 2012, 2013 and 2014 AEMRs.	Compliant
5.6.2.2	Sediment traps have also been installed in runoff zones of industrial areas, catch drains have been installed to prevent sediment from entering waterways and sedimentation ponds from the coal treatment unit. Controls have also been implemented to direct storm water runoff from industrial areas into one of two dams located near the main industrial area.	A review of documentation and the site visit conducted by the auditors confirmed that the site continues to be generally managed according to these requirements.	Compliant
5.6.2.3 Sediment Control Structures			
5.6.2.3	Location of main storage dams is shown on Figure 1 and details of capacities are given in Table 2. The function of these dams is to support a network of water storages that can be utilised internally for water transfers or direct to pumping stations for dust suppression purposes within the mining operations. These dams are monitored on a monthly basis for storage volumes and water quality purposes (see Section 5.6.3 for detail).	Monthly dam inspection checklists were cited by the auditors.	Compliant
5.6.2.3	Pumping records are also collected across the site water management system to identify water transfer. Data relating to water quality, both physical and chemical, water storages and pumping volumes are also summarised and reported in the AEMR.	Pumping results for effluent wastes are quoted in the 2013 and 2014 AEMRs.	Compliant
5.6.2.4 Maintenance of Sediment Control Structures			
5.6.2.4	Dams and voids are visually inspected on a monthly basis as part of normal environmental monitoring processes. If issues are detected, action plans are implemented to rectify or manage the issue. Some dams, those listed with the DSC have a more frequent inspection regime as required by the DSC.	Monthly dam inspection checklists were cited by the auditors.	Compliant
5.6.2.4	Rehabilitated areas are visually inspected regularly for damage or maintenance purposes. For example, if a significant rainfall event should occur, rehabilitation areas are inspected to determine that no damage has been sustained by diversion banks. If damage is discovered, a management plan is implemented to repair the damage as soon as practical after the event. Any remediation work undertaken is detailed in the AEMR and the annual rehabilitation report.	It is noted that a storm event occurred the night before the auditors first attended site, and no comprehensive check of rehabilitation areas was conducted by Anglo Coal staff. It is recommended that the system of post rainfall inspections be reviewed to include rehabilitation areas, sediment and erosion control measures, and the potential for offsite discharge.	Administrative non-compliance - Recommendation made
5.6.2.4	Major dams are inspected monthly for sediment content during water quality monitoring. One dam however, the rail loop dam, which collects sediment from the CHPP area, is desilted on a regular basis. This is coordinated by the Coal Handling and Preparation Superintendent as required.	Monthly dam inspection checklists were cited by the auditors.	Compliant
5.6.3 Surface Water Monitoring			
5.6.3	Drayton has an established surface water monitoring plan, which has been in place for the life of the mine (1982 to current) and addresses surface water management and monitoring. As part of this plan, monthly surface water monitoring is undertaken at dams located along the creeks on site or in creeks themselves when sufficient water is available. Long term monitoring data is also available for current main storages since their construction, with data being available for some structures in excess of twenty years.	This monitoring was undertaken during the audit period, as outlined in Section 3.3.2 of 2012, 2013 and 2014 AEMRs.	Compliant

5.6.3.2 Surface Water Impact Assessment Criteria			
5.6.3.2	Surface water monitoring occurs on a monthly basis and at locations listed in Table 2. Locations of these sampling sites are shown in Figure 10. Since Drayton is located at the headwaters of streams, surface water flows in creeks rarely occur. However, should excessive rainfall occur, that leads to surface runoff in streams, these will be sampled as per the normal regime of monitoring, with the same suite of analytes as normally sampled.	The locations now monitored for surface water quality differ from those identified on Figure 10. It is recommended that the Water Management Plan be updated to reflect the current monitoring locations.	Administrative non-compliance
5.6.3.2	Analysis undertaken on these samples include pH, electrical conductivity, total dissolved solids, non filterable residue, sodium, magnesium, calcium, potassium, chloride, sulphate and bicarbonates.	Section 3.3 of the 2012, 2013 and 2014 AEMRs confirms that these parameters continue to be monitored.	Compliant
5.6.3.2	Internal trigger levels have been established, where an internal investigation will be conducted to determine the factors which have led to a result which exceeds 8000µS/cm for electrical conductivity or pH levels are recorded outside of the range 6.0 - 9.0. Dependent upon the investigation findings, mitigation measures may be implemented as per Section 5.6.6.3 of this management plan. Any mitigation measures implemented will be detailed and assessed in the AEMR.	There is an EC result of 22,100 from 21 September 2015, but no indication that this was investigated.	Administrative non-compliance
5.6.3.3 Downstream Management			
5.6.3.3	Since all mine water is contained within the internal mine water management system and is not discharged off site, downstream management is minimal. If a significant rainfall event occurs, regular inspections are undertaken of the water storages to determine that no mine affected water has left the site. These inspections are documented within the existing site environmental database and continued until the effects of the extreme rainfall event have subsided.	It is noted that a storm event occurred the night before the auditors first attended site, and no comprehensive check of surface water structures was conducted by Anglo staff. Interviews with onsite personnel confirmed that post rainfall inspections are carried out by maintenance staff across various parts of the Site, but there is no clear trigger for these inspections, and no records are made.	Non-compliant
5.6.3.3	If a discharge of mine water has been detected, the incident would immediately be investigated and measures implemented to prevent a recurrence. The incident would also be notified to the relevant regulatory agency. If any off site damage has occurred as a result of the mine water discharge, Drayton would undertake any necessary work to remediate any damage.	This has not occurred during the audit period.	Not Triggered
5.6.3.3	Although Drayton is located at the headwaters of streams, surface water flows in creeks rarely occur. However, should seepage or spills be detected from dams to downstream creeks, water quality monitoring shall be commenced. This shall include chemical characteristics and physical characteristics of the water.	This has not occurred during the audit period.	Not Triggered
5.6.3.4 Reporting of Results			
5.6.3.4	As a requirement of Drayton's project approval conditions and Drayton's environmental protection licence, all monitoring data must be presented in the AEMR to the Director General. A copy of this report is also forwarded to the following agencies: DII; NSW Office of Water (NOW); Muswellbrook Shire Council (MSC); Dam Safety Committee (DSC); Department of Environment, Climate Change and Water (DECCW); and Drayton's Community Consultative Committee members. A copy will also be placed on Drayton's website which is publicly available.	Section 3.3 of the 2012, 2013 and 2014 AEMRs fulfils these requirements.	Compliant
5.6.3.4	In addition, Drayton will regularly (at least quarterly) prepare a summary of monitoring results and make these publicly available on Drayton's website.	A review of monitoring results available on the Drayton website has not found consistent information relating to water quality monitoring. The monthly monitoring results summaries available on the website do not include surface water or groundwater results. Only one quarterly monitoring report was able to be accessed by the auditors from the Drayton website: for Q1 2012, which is outside of the current auditing period.	Administrative non-compliance
5.6.4 Groundwater Monitoring			
5.6.4	Drayton has an established ground water monitoring plan, which has been in place for the life of the mine which addresses both standing water levels and water quality. As part of this plan, monthly standing water levels are monitored at sites located around the current mining operation as well as off site locations. Long term data is available for some locations with some data being available for in excess of twenty years.	This groundwater monitoring continues at the site.	Compliant
5.6.4.1 Baseline Data			
5.6.4.1	The following piezometers will be utilised for baseline studies as extended historical data currently exists and some currently have an extensive life period before mining impacts on them. These include F1024, F1167, F1168, F1162, F1164, F1163, R4171, R4243, R4220, R4224, R4241 and W1102. Figure 11 shows the location of these piezometers which are monitored as part of the groundwater monitoring program at Drayton as described further in Section 5.6.4.4.	Examples of this quarterly groundwater monitoring were provided to the auditors, albeit for two groundwater monitoring sites only. Table 5 shows 13 groundwater monitoring sites, whereas the 2014 AEMR indicates that only 8 continue to be monitored, due to the progression of mining and rehabilitation since the Plan was last updated. It is recommended that the Water Management Plan be updated to reflect the current network of groundwater monitoring bores.	Compliant - Recommendation Made
5.6.4.1	Review, assessment and long term trend analysis of the bores that are monitored at Drayton are included as a component of Drayton's AEMR. The monitoring results are compared to the assessment criteria (as per Section 5.6.4.3), baseline data (Section 5.6.4.1) and an assessment of comparisons with EA predictions (Section 5.6.4.1) will be incorporated into Drayton's AEMR.	No such review against the groundwater model predictions or the water usage predictions contained in the environmental assessment was provided in the 2012, 2013 or 2014 AEMRs.	Administrative non-compliance

5.6.4.2 Augmenting Baseline Data			
5.6.4.2	Monthly monitoring of standing water levels, quarterly water quality and six monthly speciation analysis will supplement baseline data and will indicate potential or actual changes in either standing water level or water quality.	This groundwater monitoring continues at the site.	Compliant
5.6.4.2	Table 4 below provides detail of the identified off site registered ground water bores that are identified to lie within a cone of depression and may be affected by mining. As explained in Section 5.6.4.2 above, attempts have been made to identify the actual locations of these bores, however they have not been successfully located. Further, discussions with the landholders and NOW has confirmed that these bores are no longer utilised. Should these bores (or any other bores located within the predicted cone of depression be identified) Drayton will conduct monthly monitoring for standing water level and water quality, where possible. An investigation on the current use will also be conducted to assist in impact assessment for future consideration.	This has not occurred during the audit period.	Not Triggered
5.6.4.2	Ongoing monitoring will determine if mining is impacting on the groundwater supply of any known privately owned bores as discussed in Section 5.6.4.4. Results of this monitoring and impacts will be included in Drayton's AEMR.	Section 3.4 of the 2012, 2013 and 2014 AEMRs discusses ground water levels, but no water quality.	Administrative non-compliance
5.6.4.3 Groundwater Assessment Criteria			
5.6.4.3	Should the ongoing monitoring program implemented at Drayton discover variations in standing water level at groundwater monitoring sites F1167, F1163 and other off site registered bores (representing non mined owned landholders) vary more than 10% of the longer term pre-mining average as depicted in Figure 13 for that location and parameter, an additional repeat analysis will be conducted.	This has not occurred during the audit period.	Not Triggered
5.6.4.3	The Groundwater Impact Assessment undertaken for the Drayton Environmental Assessment explained that typical groundwater quality in the Permian coal seam aquifer is typically between 490 and 5000 uS/cm and within a range of 6.5 to 8. Should groundwater monitoring result in levels outside of these ranges, an additional repeat analysis will be conducted.	There is an EC result of 22,100 from 21 September 2015, but not indication that this was investigated. This commitment is also not entirely clear when read in conjunction with the original Groundwater Impact Assessment prepared in 2006.	Administrative non-compliance
5.6.4.3	If it is discovered that the repeat analysis confirms the original results, a comprehensive investigation will be implemented over a period of twelve months to determine if longer term adverse impacts are occurring. If it is found that adverse groundwater impacts occur, a management program will then be implemented to further manage and assess the issue against the predictions provided in the Drayton Environmental Assessment.	This has not occurred during the audit period.	Not Triggered
5.6.4.4 Monitoring Program			
5.6.4.4	Monthly standing water levels will continue to be recorded for each of sites listed in Table 5. Figure 11 shows the location of these sites. Groundwater Levels monitored will be assessed and reported against EA predictions. In addition pH, electrical conductivity, salinity and total dissolved solids will continue to be recorded on a quarterly basis.	Examples of this quarterly groundwater monitoring were provided to the auditors, albeit for two groundwater monitoring sites only. Table 5 shows 13 groundwater monitoring sites, whereas the 2014 AEMR indicates that only 8 continue to be monitored, due to the progression of mining and rehabilitation since the Plan was last updated. It is recommended that the Water Management Plan be updated to reflect the current network of groundwater monitoring bores.	Compliant - Recommendation Made
5.6.4.4	Further to this, speciation analysis of a select group of groundwater sites will be conducted on a six monthly basis. Analysis will consist of pH, electrical conductivity, total dissolved solids, alkalinity, dissolved major anions (sulphate, sulphur, silica and silicon), chloride, major cations (calcium, magnesium, sodium and potassium), dissolved iron, target minerals (aluminium, arsenic, beryllium, barium, cadmium, caesium, chromium, cobalt, copper, lead, lithium, nickel, rubidium, selenium, silver, strontium, zinc, boron and iron.	These groundwater monitoring results were provided to the auditors.	Compliant
5.6.4.4	Regional groundwater standing water levels will be monitored both on site at existing locations and off site in bores identified in Drayton's Environmental Assessment on a monthly basis to assess any impacts to the groundwater supply of potentially affected landowners. Attempts have been made to locate the off site bores in consultation with the NSW Office of Water, however to date this has been unsuccessful. Should these bores be identified in the future, Drayton will monitor these bores in accordance with the above.	Apart from one borehole which is monitored on land owned by AGL Macquarie. There is no indication that further offsite bores are monitored as per the original Environmental Assessment. It is recommended that the Water Management Plan be updated to reflect this.	Compliant - Recommendation Made
5.6.4.4	Annual volumes of water extracted from pit sumps will be estimated and will be included as part of the water balance included in the AEMR. Groundwater seepage volumes will be calculated from pumping records obtained during the mining operation.	These amounts were included in Section 3.4 of the 2013 and 2014 AEMRs, but were not provided in the 2012 AEMR.	Administrative non-compliance
5.6.4.4	Groundwater pressure response in surrounding coal measures can be monitored utilising the existing groundwater bores located in close proximity to the mining operations. A network of piezometers exist around future mining areas, and will continue to be monitored on a monthly basis. Changes will inevitably occur as mining encroaches allowing for groundwater responses in coal seam aquifers to be assessed. Results of these piezometers will be included in the AEMR and will be compared with long term averages for trend analysis.	Section 3.4 of the 2012, 2013 and 2014 AEMRs contain a discussion against trends.	Compliant
5.6.4.4	All major dams on site are monitored for water quality and water storage levels monthly. In addition, at present, Drayton has only one active mine void which is being utilised for long term water storage. A storage volume is calculated on a monthly basis for this void in addition to pumping details when pumping is being conducted. Drayton does not have any large tailings dams on site. During monthly inspections, water storages, structural and seepages are noted if they are observed. To date, no major dams or mine water voids have indicated seepages are occurring. This will however continue to be monitored on a monthly basis. If seepages are detected, a management plan including increased inspection and monitoring will be commenced to further assess the occurrence.	This has not occurred during the audit period.	Not Triggered

<table>
<tr><td colspan="4">5.6.4.5 Groundwater Model Verification</td></tr>
<tr><td>5.6.4.5</td><td>Pumping records obtained from Drayton's data collection system will be used to determine water volumes being extracted from mining operations. This will further be separated from rainfall runoff via calculation.</td><td>These calculations appear to have been undertaken.</td><td>Compliant</td></tr>
<tr><td>5.6.4.5</td><td>In addition, standing water levels will be compared to the steady state calibration results as detailed in the environmental assessment.</td><td>This is not clearly demonstrated in the AEMRs.</td><td>Administrative non-compliance</td></tr>
<tr><td colspan="4">5.6.4.6 Reporting of Results</td></tr>
<tr><td>5.6.4.6</td><td>Results of the above analysis will be included in the AEMR.</td><td>General groundwater level monitoring results are included in the 2012, 2013 and 2014 AEMRs.</td><td>Compliant</td></tr>
<tr><td>5.6.4.6</td><td>As a requirement of Drayton's project approval conditions all monitoring data must be presented in the AEMR to the Director General. A copy of this report is also forwarded to the following agencies: DII; NOW; Muswellbrook Shire Council (MSC); Dam Safety Committee (DSC); Department of Environment, Climate Change and Water (DECCW); and Drayton's Community Consultative Committee members. A copy will also be placed on Drayton's website which is publicly available.</td><td>No such review against the groundwater model predictions or the water usage predictions contained in the environmental assessment was provided in the 2012, 2013 or 2014 AEMRs.</td><td>Administrative non-compliance</td></tr>
<tr><td>5.6.4.6</td><td>This shall also include a review against the groundwater model predictions in the environmental assessment.</td><td>No such review against the groundwater model predictions in the environmental assessment was provided in the 2012, 2013 or 2014 AEMRs.</td><td>Administrative non-compliance</td></tr>
<tr><td>5.6.4.6</td><td>Water usage is also a component of annual reporting and as such water usage will be compared to predictions in the environmental assessment.</td><td>No such review against the water usage predictions in the environmental assessment was provided in the 2012, 2013 or 2014 AEMRs.</td><td>Administrative non-compliance</td></tr>
<tr><td>5.6.4.6</td><td>These assessments will be included in the AEMR.</td><td>No such review against the groundwater model predictions or the water usage predictions contained in the environmental assessment was provided in the 2012, 2013 or 2014 AEMRs.</td><td>Administrative non-compliance</td></tr>
<tr><td>5.6.4.6</td><td>In addition, Drayton will regularly (at least quarterly) prepare a summary of monitoring results and make these publicly available on Drayton's website.</td><td>A review of monitoring results available on the Drayton website has not found consistent information relating to water quality monitoring. The monthly monitoring results summaries available on the website do not include surface water or groundwater results. Only one quarterly monitoring report was able to be accessed by the auditors from the Drayton website: for Q1 2012, which is outside of the current auditing period.</td><td>Administrative non-compliance</td></tr>
<tr><td colspan="4">5.6.5 Surface and Ground Water Response Plan</td></tr>
<tr><td>5.6.5</td><td>Should an exceedance of the monitoring criteria detailed in Section 5.6.4.3 be detected, the following measures or procedures would be implemented by the Drayton Environment Coordinator, within a period of seven days, as required by PA_06_0202.</td><td>This has not occurred during the audit period.</td><td>Not Triggered</td></tr>
<tr><td colspan="4">5.6.5.1 Handling Exceedances</td></tr>
<tr><td>5.6.5.1</td><td><table><tr><th>Steps to be taken</th><th>Process to be followed</th></tr><tr><td>1</td><td>Confirm the time of the exceedence(s)</td></tr><tr><td>2</td><td>Confirm the location of the exceedence(s)</td></tr><tr><td>3</td><td>Confirm the weather conditions at the time of the exceedence(s) - if relevant</td></tr><tr><td>4</td><td>Identify the contributing factors to the exceedence(s)</td></tr><tr><td>5</td><td>Assess any monitoring results and/or observations recorded</td></tr><tr><td>6</td><td>Develop an appropriate mitigation and management strategy in consultation with NOW and DoP</td></tr><tr><td>7</td><td>Implement mitigation and management measures</td></tr><tr><td>8</td><td>Review any follow up results</td></tr><tr><td>9</td><td>Report the exceedence within 7 days in accordance with PA 06_0202 conditions</td></tr></table></td><td>This has not occurred during the audit period.</td><td>Not Triggered</td></tr>
<tr><td colspan="4">5.6.5.2 Mitigation Measures</td></tr>
<tr><td>5.6.5.2</td><td>If Drayton receives a request from a landowner whose primary water supply is extracted from a licensed bore and believes the bore to be affected by Drayton's mining, the following measures would be implemented by the Drayton Environment Coordinator in the timeframes specified. The independent review process shall be undertaken by a suitably qualified expert.<table><tr><th>Steps to be taken</th><th>Process to be followed</th><th>Timing</th></tr><tr><td>1</td><td>Receipt of a written request from the landowner in regards to adverse impact of a water supply</td><td>N/A</td></tr><tr><td>2</td><td>Provide a copy of the request to the DoP and inform the DoP of Drayton's intention to conduct an independent review</td><td>7 days</td></tr><tr><td>3</td><td>Commission an independent review. This review to include
All relevant standing water levels and water quality results
Consider any changes in land use that may have affected the groundwater level or data over a period of time
Meteorological conditions relevant to standing groundwater levels
Impacts from Drayton Mine
Impacts from other industrial sites</td><td>28 days from landowner request</td></tr><tr><td>4</td><td>Provide a copy of the independent report to the DoP and the landowner</td><td>28 days from commission</td></tr><tr><td>5</td><td>Review response from DoP as to whether bore has been adversely affected by mining at Drayton</td><td>7 days from DoP response</td></tr><tr><td>6</td><td>If DoP conclude that the bore has been adversely affected by Drayton mining operations, Drayton shall replace the water supply with water of equivalent quality and volume</td><td>28 days from DoP conclusion</td></tr><tr><td>7</td><td>If appropriate, develop mitigation and management strategies</td><td>As required</td></tr><tr><td>8</td><td>Implement the mitigation and management strategy</td><td>As required</td></tr><tr><td>9</td><td>Review and follow up the results</td><td>As required</td></tr></table></td><td>This has not occurred during the audit period.</td><td>Not Triggered</td></tr>
</table>

<table>
<tr><td colspan="4">5.6.5.3 Incident Management</td></tr>
<tr><td>5.6.5.3</td><td>In the event of any other unforeseen surface or groundwater impacts occurring, the following shall apply.
<table><tr><th>Steps to be taken</th><th>Process to be followed</th></tr><tr><td>1</td><td>Review the unforeseen impact or incident including any relevant monitoring results and current mining activities that may influence the event</td></tr><tr><td>2</td><td>Commission an independent investigation into the unforeseen impact, if it is considered relevant by the S&SD Manager</td></tr><tr><td>3</td><td>Develop appropriate mitigation measures based on the results of the investigation and in consultation with the relevant authorities</td></tr><tr><td>4</td><td>Implement these measures and additional monitoring to measure their effectiveness giving due consideration to the predicted drawdown impacts as defined in the EA.</td></tr></table></td><td>This has not occurred during the audit period.</td><td>Not Triggered</td></tr>
<tr><td>5.6.5.3</td><td>All environmental incidents recorded and tracked at Anglo Coal Drayton are entered into the ACA Corporate Cintellate system, which captures all site incidents.</td><td>Evidence of the site using the system Enableon to track incidents was observed by the auditors during the site visit.</td><td>Compliant</td></tr>
<tr><td colspan="4">5.6.6 Prescribed Dams</td></tr>
<tr><td>5.6.6</td><td>The NSW Dams Safety Committee issues a list of the prescribed dams in NSW. There are two Drayton structures listed with this committee. These dams are Drayton WS (Access Rd) Dam, and the Liddell Ash Dam Levee. Surveillance reports are completed on these structures as required by the DSC.</td><td>As reported in Section 7.2.2 of the 2012 and 2013 AMERs, and Section 7.3.2 of the 2014 AEMR, the most recent surveillance report for the Access Road Dam was undertaken in 2010, and the next one will be due in 2015. An example of an annual surveillance report for the Liddell Ash Dam report from 2014 was also provided to the auditors.</td><td>Compliant</td></tr>
<tr><td colspan="4">5.6.7 Integration with Adjacent Mining Operations</td></tr>
<tr><td>5.6.7</td><td>Anglo Coal Drayton Mine have previously supplied the Mt Arthur Coal (formerly Bayswater Coal Company) with additional mine water. This arrangement ensured excess water available at Anglo Coal Drayton Mine was utilised in mining operations. This arrangement continues to operate and has had no adverse impacts to date. Water is transferred by enclosed pipe from Drayton's Rail Loop Dam direct to water storage tanks at Mt Arthur Coal's washery. All volumes of water transferred to other mining or industrial facilities is recorded and reported in Drayton's AEMR.</td><td>While the 2012, 2013 and 2014 AEMRs reiterate the fact that Anglo Coal is licensed to supply water to Mt Arthur, no volume of water transferred to Mt Arthur Coal was provided in any of these AEMRs.</td><td>Administrative non-compliance</td></tr>
</table>

Appendix M

Audit Protocol: *Offset Strategy* (AngloAmerican, 23 September 2015)

Appendix M Audit Protocol: *Offset Strategy* (AngloAmerican, 23 September 2015)

Reference	Requirement	Evidence	Audit Finding
Offset Strategy, September 2015 (Anglo Coal (Drayton Management) Pty Ltd)			
1 PURPOSE			
1	The Drayton Extension will result in the removal of approximately 44 ha of native vegetation. The offset area for the Drayton Extension (the Southern Offset Area) contains 88 hectares on which native vegetation will be revegetated, including extensive examples of Endangered Ecological Community (EEC) vegetation.	These requirements were confirmed during a review of the site's GIS system and a site visit conducted by the auditors.	Compliant
1	The proposed PA 06_0202 MOD1 2009 will result in the removal of approximately 8 hectares of vegetation. The offset area for the PA 06_0202 MOD1 2009 (the Northern Offset Area) is approximately 12 hectares of native vegetation that will be protected and managed for biodiversity in the long term.	These requirements were confirmed during a review of the site's GIS system and a site visit conducted by the auditors.	Compliant
1	These offsets will be managed in the long-term in accordance with the existing Drayton Wildlife Refuge area. These offsets will be protected from development in the long term and will result in an increase in the biodiversity value of the area.	These requirements were confirmed during a review of the site's GIS system and a site visit conducted by the auditors.	Compliant
4 PROCEDURAL REQUIREMENT			
4.1 Conditions of Consent			
4.1	According to Condition 35, Narrow-leaved Ironbark woodland should comprise the largest proportion of the 88 hectares (72 ha), with Forest Red Gum open forest and woodland comprising 2.6 hectares and Yellow Box and Grey Gum woodland comprising 12 hectares. However, Narrow-leaved Ironbark woodland is a well-represented vegetation community in the region, while the Forest Red Gum open forest and woodland and Yellow Box and Grey Gum woodland vegetation conforms to EECs known as Hunter Lowland Red Gum Forest and Box- Gum Woodland respectively. Thus there would be a greater conservation outcome to plant a higher proportion of those communities relative to the Narrow-leaved Ironbark woodland. Accordingly, the offset area will be planted a higher proportion of EEC vegetation due to its higher ecological significance.	These requirements were confirmed during a review of the site's GIS system and a site visit conducted by the auditors.	Compliant
4.1	The Southern Offset will contain at least: • 26 ha of Narrow-leaved Ironbark woodland; • 19 ha of Spotted Gum-Grey Box open forest woodland; • 15 ha of Forest Red Gum open forest and woodland (Hunter Lowland Red Gum Forest; • EEC); and • 24 ha of Yellow Box and Grey Gum woodland (Box-Gum Woodland EEC).	These requirements were confirmed during a review of the site's GIS system and a site visit conducted by the auditors.	Compliant
4.1	Narrow-leaved Ironbark woodland will be planted upon the uppermost slopes, Spotted Gum-Grey Box open forest woodland on the mid-slopes and mixtures of Forest Red Gum and Yellow Box will be planted on the lower slopes and adjoining similar vegetation that occurs in Saddlers Creek. Figure 1 shows the proposed planting scheme.	These requirements were confirmed during a site visit conducted by the auditors.	Compliant
4.1	The approved Rehabilitation and Offset Management Plan provides detail on the rehabilitation and conservation management of all offset and rehabilitation areas for the site, for the short, medium and long term. This involves management activities such as weed removal, feral animal control and monitoring. These activities will be ongoing and will ensure that the reconstructed vegetation communities will develop into high quality, viable examples of each community type.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.1	Felled trees from the land to be cleared, particularly from the revegetated Yellow Box and Grey Gum woodland will be placed in rehabilitation and offset areas to provide more substantial habitat for ground dwelling fauna.	These requirements were confirmed during a site visit conducted by the auditors.	Compliant
4.2 Southern Offset Area			
4.2	This offset area will be incorporated into the natural zone and managed in the long-term in accordance with the existing Drayton Wildlife Refuge area.	These requirements were confirmed during a site visit conducted by the auditors.	Compliant
4.2	Further seeding and planting of 3500 tubestock occurred in 2015. There will be ongoing flora and fauna monitoring of the areas and thermal surveys to ensure no heating is apparent. Areas found to have surface heating will be subject to further restoration works.	These requirements were confirmed during a site visit conducted by the auditors.	Compliant
4.2	Further tubestock planting is planned in late 2015.	These requirements were confirmed during a site visit conducted by the auditors.	Compliant
4.2	Drayton has entered into discussions with the local Aboriginal community to develop a specific 'Keeping Place', located in the Southern Offset Area on non-disturbed land near Saddlers Creek. The Keeping Place may be used to collate all artefacts collected through the Drayton Aboriginal Cultural Heritage salvage programs. It is envisaged that the Keeping Place will be established to balance ecological and Aboriginal Cultural Heritage aspects related to Drayton.	This keeping place was never finalised in consultation with the Aboriginal groups, and salvaged items are now stored at an alternative location.	Compliant
4.3 Northern Offset Area			
4.3	The Northern Offset Area is located in the natural zone of the original gazetted Drayton Wildlife Refuge and will be managed and preserved in the long-term, in accordance with the existing Drayton Wildlife Refuge area. This land will complement the Southern Offset Area, thus providing a total offset package at Drayton of approximately 100 hectares of woodland.	The site visit conducted by the auditors confirmed that this area is fenced, including with signage delineating it as an Environmental Offset Area. This signage (dated September 2015) also indicated recent rabbit and wild dog control methods had been undertaken in the area.	Compliant
4.3	Accordingly, the strategy in this area is not to recreate ecological communities, but rather to enhance and improve the condition of the vegetation that already exists. This will be achieved by utilising assisted natural regeneration.	The site visit conducted by the auditors confirmed that this area is fenced, including with signage delineating it as an Environmental Offset Area. This signage (dated September 2015) also indicated recent rabbit and wild dog control methods had been undertaken in the area.	Compliant
4.3	Natural regeneration of seedlings from existing vegetation is encouraged by removing threats to their survival such as weeds and animals, both domestic and feral. This technique is appropriate in this area as the site contains significant native vegetation that can act as a seed source. Accordingly, weed and feral animal control will be undertaken within the offset area, to remove these pressures from regenerating native species.	The site visit conducted by the auditors confirmed that this area is fenced, including with signage delineating it as an Environmental Offset Area. This signage (dated September 2015) also indicated recent rabbit and wild dog control methods had been undertaken in the area.	Compliant
4.3	In more degraded areas that are devoid of canopy cover where natural recruitment of canopy species is unlikely to occur, selective replanting of native species may be conducted to help the native canopy species establish.	The site visit conducted by the auditors confirmed that such replanting is generally not required, due to rates of natural regeneration at the site.	Compliant

4.4 Responsibilities			
4.4	The Environment Coordinator is responsible for the implementation of the Offset Strategy.	The interviews conducted by the auditors during the site visit confirmed that this member of staff had a sound knowledge of this area of their responsibility.	Compliant
4.5 Audit/Review Schedule			
4.5	This Offset Strategy will be subject to review every five years. The SHE Manager will be responsible for facilitating these reviews.	As the previous versions of the *Offset Strategy* (AngloAmerican, 2015) are dated 2012 and 2009, it can be concluded that this condition has been complied with.	Compliant
4.6 Records Management			
4.6	Any records associated with this Offset Strategy will be kept by the Environment Department for the life of the mine.	Relevant records were provided to the auditors during the site visit.	Compliant

Appendix N

Audit Protocol: *Rehabilitation and Offset Management Plan* (AngloAmerican, October, 2013)

Appendix N Audit Protocol: *Rehabilitation and Offset Management Plan* (AngloAmerican, October, 2013)

Reference	Requirement	Evidence	Audit Finding
Rehabilitation and Offset Management Plan, October 2013 (Anglo Coal (Drayton Management) Pty Ltd			
4 PROCEDURAL REQUIREMENT			
4.1 Responsibilities			
4.1	The Drayton General Manager will be responsible for ensuring adequate budget is allocated to undertake all actions required under this Rehabilitation and Offset Management Plan (ROMP).	A review of site documentation undertaken by the auditors confirmed that this responsibility is met by the General Manager.	Compliant
4.1	The Drayton Safety, Health and Environment (SHE) Manager will be responsible for ensuring that all budget allocation required by the ROMP is brought to the attention of the General Manager.	A review of site documentation undertaken by the auditors confirmed that this responsibility is met by the SHE Manager.	Compliant
4.1	The Drayton Environmental Coordinator will be responsible for: Monitoring and implementing the ROMP and preparation of the annual monitoring report for inclusion in the Annual Environmental Management Report (AEMR); Coordinating, supervising and managing all works and correspondence with respect to this ROMP; Allocation of establishment and management tasks to personnel in response to issues arising from monitoring results (e.g. plant losses/re-planting, weed control); and Facilitating the review of the ROMP to the satisfaction of the Drayton SHE Manager and the General Manager.	A review of site documentation and interviews conducted by the auditors confirmed that these responsibilities are generally met by the Environmental Coordinator.	Compliant
4.1	The Drayton Environmental Officer will be responsible for coordinating, supervising and managing: Primary, follow-up and maintenance planting and seeding; Weed and feral animal control; Demarcation and/or fencing; Seed collection and plant propagation; and Monitoring of the Drayton Wildlife Refuge, Northern and Southern Offset Areas, tree screens and rehabilitation areas.	A review of site documentation and interviews conducted by the auditors confirmed that these responsibilities are generally met by the Environmental Officer.	Compliant
4.1	All works will be undertaken by appropriately qualified and experienced personnel under the supervision of the Drayton Environmental Coordinator or Drayton Environmental Officer.	A review of site documentation and interviews conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.2 Audit/Review Schedule			
4.2	An intermediate review of this ROMP will be undertaken by February 2014 to incorporate recommendations from the 2013 flora and fauna monitoring report.	This review was not undertaken.	Administrative non-compliance
4.2	This ROMP is subject to review every three years.	Modification approval (06_0202 MOD 2) was granted on 17 February 2012. The auditors sighted email correspondence with regulators indicating that this review was completed within the three year timeframe, and regulatory approval was provided after that.	Compliant
4.2	Monitoring results should be reviewed annually to assess the progress of the rehabilitation and maintenance programs.	Section 5 of the 2012, 2013 and 2014 AEMRs discusses how annual flora and fauna monitoring took place. However no summary of these monitoring results is provided in the AEMRs. It is recommended that future annual flora and fauna monitoring results be summarised in the AEMR to confirm how the site is tracking against these requirements.	Compliant - Recommendation Made
4.2	Monitoring results are presented in the AEMR. Establishment and maintenance works conducted in accordance with requirements of this ROMP will also be included in the AEMR.	Section 5 of the 2012, 2013 and 2014 AEMRs outlines rehabilitation activities undertaken each year and discusses how annual flora and fauna monitoring took place. However no summary of these monitoring results is provided in the AEMRs. It is recommended that future annual flora and fauna monitoring results be summarised in the AEMR to confirm how the site is tracking against these requirements.	Compliant - Recommendation Made
4.2	Each year, the survivorship of seedlings in the establishing woodland areas will be assessed and the requirements for further tube stock planting or other maintenance determined. If required, a botanist may be used to help determine which species are present, and which should be planted to achieve the target vegetation community. The annual reviews and the monitoring data may also be used to identify weed infestations and to target areas that need more input to achieve satisfactory results.	Section 5 of the 2012, 2013 and 2014 AEMRs discusses how annual flora and fauna monitoring took place. However no summary of these monitoring results is provided in the AEMRs and the auditors were not otherwise able to confirm that the survivorship of remaining seedlings is monitored and recorded by the site. It is recommended that future annual flora and fauna monitoring results include rates of survivorship.	Administrative non-compliance - Recommendation Made
4.2	The ROMP will be reviewed and adjusted every three years according to the response of the areas to revegetation and rehabilitation activities. Recommendations from annual monitoring for the previous period will be incorporated into the ROMP during these reviews.	Modification approval (06_0202 MOD 2) was granted on 17 February 2012. The auditors sighted email correspondence with regulators indicating that this review was completed within the three year timeframe, and regulatory approval was provided after that.	Compliant
4.2	Relevant government departments will be asked to review and provide comment on any major changes to this ROMP.	This consultation is evidenced by the preparation of the new Draft MOP which will run through until 2020.	Compliant
4.3 Records Management			
4.3	All records required by the ROMP will be kept and controlled by the Drayton SHE Department and are the responsibility of the Environmental Coordinator.	Relevant records were able to be provided to the auditors during the site visit.	Compliant

4.7.1 Drayton Wildlife Refuge			
4.7.1	The following actions are currently undertaken in the Drayton Wildlife Refuge and should be continued: Excluding grazing by stock whilst allowing access by native fauna; Maintenance of native vegetation in the north and north-east to provide corridors for fauna movement and improve the effectiveness of the refuge as a conservation area; Encouraging the re-establishment of natural vegetation succession; and Making selected areas of the refuge available, by arrangement with Drayton, for use by groups for ecological research.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.7.1	Monitoring should be undertaken for the Drayton Wildlife Refuge according to the methods outlined in Section 4.14. This should be undertaken annually for the life of this plan and beyond the life of this plan as required until the key performance indicators for rehabilitation are met.	A review of site documentation conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.7.2 Southern Offset Area			
4.7.2	As specified in the Drayton Offset Strategy, the Southern Offset Area will contain: 26 ha of Narrow-leaved Ironbark woodland; 19 ha of Spotted Gum-Grey Box open forest woodland; 15 ha of Forest Red Gum open forest and woodland; and 24 ha of Yellow Box and Grey Gum woodland.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.7.2	The revegetated areas will be regularly monitored and maintained, and the goal for this area is that these plantings will form high quality examples of viable, self-sustaining native vegetation communities.	Section 5 of the 2012, 2013 and 2014 AEMRs discusses how annual flora and fauna monitoring took place. However no summary of these monitoring results is provided in the AEMRs. It is recommended that future annual flora and fauna monitoring results be summarised in the AEMR to confirm how the site is tracking against these requirements.	Compliant - Recommendation Made
4.7.3 Northern Offset Area			
4.7.3	Accordingly, weed and feral animal control will be undertaken within the Offset Area, to remove these pressures from regenerating native species.	These requirements were confirmed during a site visit conducted by the auditors.	Compliant
4.7.3	In more degraded areas that are devoid of canopy cover, natural recruitment of canopy species is unlikely to occur, and therefore selective replanting of native species will be conducted as needed in these areas to help the native canopy species establish.	These requirements were confirmed during a site visit conducted by the auditors.	Compliant
4.8 Integration with Other Relevant Rehabilitation Strategies			
4.8	Drayton rehabilitation and offset areas will be integrated with local and regional rehabilitation strategies and have been designed to complement rehabilitation and offset strategies of neighbouring operations such as the Rehabilitation and Offset Strategy for Mt Arthur Coal and remnant native vegetation on Macquarie Generation's land.	This was noted, however the audit did not require a finding to be made against this commitment	Not Triggered
4.9.1 Rehabilitation Objectives and Targets			
4.9.1	The normal sequence of overburden emplacement, shaping, rehabilitation and revegetation will be continued. After mining is complete in an area, rehabilitation will be expedited with annual rehabilitation targets to reflect mining progression outlined in the Mining Operations Plan (MOP).	Section 5 of the 2012, 2013 and 2014 AEMRs outlines rehabilitation activities undertaken each year.	Compliant
4.9.2 Management of Existing Vegetation on Drayton Land			
4.9.2	Areas of native vegetation exist on Drayton outside of the offset areas that will be managed for conservation purposes. They include woodland vegetation consisting of Spotted Gum-Grey Box Open Forest and Hunter Lowlands Redgum Forest (HLRF) occurring on Drayton surrounding the rail loop, coal stockpiles and access road dam. Management measures for these areas will be: Minimising vegetation clearance; Weed control; Feral animal control; and Exclusion of stock.	These requirements were confirmed during a site visit conducted by the auditors.	Compliant
4.9.3 Revegetation Strategy – Southern Offse			
4.9.3	A total of 30,000 tube stock seedlings were planted in 2010 to supplement canopy species. The planting plan generally followed the revegetation zones outlined in Figure 7. Establishment of tube stock seedlings has shown mixed success. Monitoring will continue to identify areas with low success rates and subsequent planting will occur in these areas until the required density is established.	Section 5 of the 2012, 2013 and 2014 AEMRs discusses how annual flora and fauna monitoring took place. However no summary of these monitoring results is provided in the AEMRs. It is recommended that future annual flora and fauna monitoring results be summarised in the AEMR to confirm how the site is tracking against these requirements.	Compliant - Recommendation Made
4.9.3	An additional 2,000 tube stock seedlings were planted in 2013. Conditions were favourable prior to planting but turned hot and dry as planting continued. Mortality rates will be monitored and supplementary planting will occur during the 2014 scheduled planting work or earlier if the opportunity arises.	Section 5 of the 2012, 2013 and 2014 AEMRs discusses how annual flora and fauna monitoring took place. However no summary of these monitoring results is provided in the AEMRs. It is recommended that future annual flora and fauna monitoring results be summarised in the AEMR to confirm how the site is tracking against these requirements.	Compliant - Recommendation Made
4.9.3	Further planting stages will be required to establish diverse representative species of the target communities. Tube stock planting will take place in the cooler months, after rainfall where possible to reduce potential stress on the tube stock. Planting will occur on an annual basis focussing on areas where the surface is free of evidence of spontaneous combustion.	Section 5 of the 2012, 2013 and 2014 AEMRs discusses how annual flora and fauna monitoring took place. However no summary of these monitoring results is provided in the AEMRs. It is recommended that future annual flora and fauna monitoring results be summarised in the AEMR to confirm how the site is tracking against these requirements.	Compliant - Recommendation Made

4.9.4 Offset Maintenance Strategy – Southern Offse			
4.9.4	Implementing a successful revegetation strategy in the Southern Offset will require regular controls and maintenance to be put in place to manage potential risks as outlined in Section 4.9.9. The main, long-term risk to the successful establishment of vegetation in the Southern Offset is spontaneous combustion.	Section 5 of the 2013 and 2014 AEMRs discuss how annual flora and fauna and spontaneous combustion monitoring has taken place. However no summary of these monitoring results is provided in the AEMRs. It is recommended that future spontaneous combustion monitoring results be summarised in the AEMR to confirm how the site is tracking against these requirements.	Compliant - Recommendation Made
4.9.4	Affected areas have been mapped and the entire Southern Offset will be subject to annual thermal imaging to monitor the progress of remediation work and ensure a continuous reduction in affected areas until evidence of active spontaneous combustion is eliminated.	These requirements were confirmed during a review of the site's GIS system and a site visit conducted by the auditors.	Compliant
4.9.4	Remediation will commence in 2013 with the worst affected areas being excavated and/or re-capped with a suitable material (e.g. clay) before being re-seeded to establish groundcover. Areas with minimal surface heating may be re capped and re-seeded without excavation.	These requirements were confirmed during a review of the site's GIS system and a site visit conducted by the auditors.	Compliant
4.9.4	All affected areas will then be monitored to ensure adequate control of surface heating prior to being re-planted with canopy species.	Section 5 of the 2013 and 2014 AEMRs discuss how annual flora and fauna and spontaneous combustion monitoring has taken place. However no summary of these monitoring results is provided in the AEMRs. It is recommended that future spontaneous combustion monitoring results be summarised in the AEMR to confirm how the site is tracking against these requirements.	Compliant - Recommendation Made
4.9.4	Re-planting of canopy species in affected areas will not recommence until 2014 after thermal imaging has confirmed surface heating has been eliminated in the areas to be re-planted.	These requirements were confirmed during a site visit conducted by the auditors.	Compliant
4.9.5 Offset Maintenance Strategy – Northern Offse			
4.9.5	To assist natural regeneration of the Northern Offset Area, rehabilitation will largely consist of three elements: Protection; Weed control; and Supplementary planting (if necessary).	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.9.5	Maintenance works, as detailed in Section 4.11, will ensure that the vegetation of the site continues to improve and be self-sustaining. All rehabilitation needs to be followed up by monitoring with reference to analogue sites. Prescriptions for monitoring are described in Section 4.14.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.9.6 Thomas Mitchell Drive Tree Screen			
4.9.6	The following procedures apply to the Thomas Mitchell Drive Tree Screen: This area will be managed in order to maximise its value for wildlife; Any tree that dies in the plantings will be replaced with a new specimen from tube stock, and the old tree will be left in situ to provide habitat for native species; Annual review and replacement will be undertaken until mine closure; If mowing is required to be undertaken, it should occur early in the spring when most exotic grasses are seeding, but will not damage the later maturing native species; and This area will be monitored at the same time as monitoring is conducted on the Northern and Southern Offset Areas (see Section 4.14).	This tree screen was observed by the auditors during the site visit and was found to be in good condition.	Compliant
4.9.7 Reduction of Visual Impacts			
4.9.7	Landscaping will be used throughout the site to reduce the visual impacts. This will primarily be aimed at reducing the impact to motorists travelling along nearby roads.	These requirements were confirmed during a site visit conducted by the auditors.	Compliant
4.9.7	The establishment of informal tree stands across the overburden emplacements areas, that reflect the scale and pattern of adjoining tree/grass areas will also be undertaken. These will consider the skyline location of the overburden emplacement areas and upon completion will reduce the visual impacts of the mine.	These requirements were confirmed during a site visit conducted by the auditors.	Compliant
4.9.7	In consideration of Muswellbrook Shire Council's Mining Rehabilitation Policy (see Section 4.8.2), areas of the Great North Tip visible from the New England Highway and Thomas Mitchell Drive will be returned to “high density trees” (i.e. greater than 30 stems per hectare) consistent with native woodland stands present in the area and meeting the objectives of this ROMP.	These requirements were confirmed during a site visit conducted by the auditors.	Compliant
4.9.8 Rehabilitation and Aboriginal Cultural Heritage			
4.9.8	In the Northern Offset Area there may be the potential for Aboriginal artefacts to occur. Limited works will take place in this area and it is therefore unlikely that any objects will be disturbed. If rehabilitation activities are to take place in an area with potential to contain Aboriginal artefacts, then an appropriately qualifie Heritage consultant will be employed to survey the area and clearly mark these items to ensure they are not damaged.	This has not occurred during the audit period.	Not Triggered
4.9.8	All workers will be briefed about the presence of sites of cultural significance prior to any works commencing to encourage due respect and awareness for the preservation and integrity of these areas.	The site's Permit to Disturb Land Form does contain a requirement to consider the possible presence of Aboriginal heritage. However the overall site induction information does not contain information about cultural heritage (Aboriginal or otherwise).	Administrative non-compliance

4.9.10 Contingency Measures			
4.9.10	The main contingency measure for the risks outlined above is to continue to plant seedlings in the revegetation areas until the desired density is reached. Unplanned events are to be addressed on a case by case basis. In general however, the procedure would be to address the cause of the incident and if possible prevent it occurring again (e.g. by fencing the site to prevent stock access).	The site visit conducted by the auditors confirmed that the site has experienced substantial rates of plant loss after initial rehabilitation plantings. Issues caused by spontaneous combustion and related soil quality have been managed through clay capping. Issues relating to rehabilitation loss from rabbit feeding have been mitigated through rabbit baiting, as well as fencing to prevent general stock access.	Compliant
4.9.10	The second action would be to rectify the situation by replacing lost plants. The procedures outlined in this plan such as seed collection, propagation and planting are intended to be ongoing, so that if an area of revegetation is lost, there are resources available to procure additional plant material to replace the lost stock.	The site visit conducted by the auditors confirmed that the site has experienced substantial rates of plant loss after initial rehabilitation plantings. An additional 250,000 seedlings are planned for planting, and many of these are replacement seedlings to meet density targets.	Compliant
4.9.10	Some contingencies are difficult to prevent or to manage. The Southern Offset Area is too large for watering of seedlings to be a practical measure, and therefore the plants in this area are vulnerable to periods of drought. In the event of long periods of dry weather occurring, revegetation efforts would be suspended until climatic conditions became more suitable.	This was noted, however the audit did not require a finding to be made against this commitment.	Not Triggered
4.10 Establishment Techniques			
4.10	Records of site preparation, topsoil handling and establishment works should be checked off and signed by the Drayton Environmental Coordinator.	A review of site documentation confirmed that these requirements are being carried out.	Compliant
4.10.1 Landform Design and Construction			
4.10.1	Diversion banks or contour banks may be constructed to maintain slope stability. Diversion banks are to be integrated into the overall surface water management plan for the site. Grades on all diversion banks must not exceed 1% and must not be less than 0.5%.	These requirements were confirmed during a review of the site's GIS system and a site visit conducted by the auditors.	Compliant
4.10.1	Selected diversion banks may be removed after slope stability is achieved with established vegetation cover provided they are not needed for ongoing management of surface water movements.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.10.1	Drainage diversions, channels and discharge points shall be constructed to meet regulatory requirements and shall be generally sufficient to convey a 1:20 year average recurrence interval rainfall event. Spill areas will be designed to dissipate energy sufficient to minimise risk of erosion. Use of rock lined drainage diversions, channels and spillways will be determined by Anglo American's Erosion and Sediment Control Standard.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.10.2 Site Preparation			
4.10.2	All inert materials utilised as capping materials shall be inspected by a geologist to ensure any adverse characteristics are identified and that suitability as an adequate capping material can be determined. This shall include any forms of clay and overburden material considered appropriate for capping materials.	This was confirmed as per material characterisation reports cited by the auditors during the site visit.	Compliant
4.10.2	All batters within proposed rehabilitation areas need to be assessed with regard to the possible occurrence of spontaneous combustion. If any treatments such as track rolling, additional compaction and spot treatments are required then these must be undertaken prior to the application of final capping materials.	Section 5 of the 2013 and 2014 AEMRs discuss how annual flora and fauna and spontaneous combustion monitoring has taken place. However no summary of these monitoring results is provided in the AEMRs. It is recommended that future spontaneous combustion monitoring results be summarised in the AEMR to confirm how the site is tracking against these requirements.	Compliant - Recommendation Made
4.10.2	Erosion control measures must be undertaken on all areas of rehabilitation to ensure stability of slopes. Ripping to a depth of at least 400 millimetres (mm) along the contour will limit compaction and encourage water infiltration into the soil profile.	These requirements were confirmed during a site visit conducted by the auditors.	Compliant
4.10.3 Topsoil Management			
4.10.3	Topsoil is a valuable commodity and must be conserved to ensure that adequate supplies are available for longer term rehabilitation requirements.	Topsoil is stripped and stockpiled for reuse onsite.	Compliant
4.10.3	A topsoil balance is completed annually as a component of the AEMR. This quantifies topsoil available for rehabilitation and identifies any topsoil deficit for future rehabilitation requirements.	Section 2.4.3 of the 2012, 2013 and 2014 AEMRs contains a topsoil balance. All of this retained topsoil is considered suitable for rehabilitation activities.	Compliant
4.10.3	Strategic topsoil application will be implemented, whereby areas to be returned to native vegetation communities may be revegetated without the use of topsoil. These areas will require soil ameliorants to ensure development of soil structure and subsequent ground cover vegetation. Topsoil will be placed on selected areas to be rehabilitated, to a depth of not less than 100 mm.	Section 2.2 of AEMR 2012 cites this 10 cm spread taking place. This is generally the process followed onsite. However topsoil is generally not used for areas of native rehabilitation.	Compliant
4.10.3	Topsoil stripping is generally restricted to one 50 to 60 metre wide strip in advance of mining. Direct placement of topsoil is utilised where possible and stockpiling times are minimised as native seed contained in topsoil resources degrades rapidly in stockpiles. Where available area permits, stockpiles should be restricted to a height of no more than three metres. All topsoil stockpiles must be shaped and revegetated as soon as they are completed to ensure soil erosion and weed development is minimised.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant

4.10.4 Species Selection			
4.10.4	Plant species will be selected that are representative and characteristic of target plant communities.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.10.4	Plant species will be selected to expand existing flora populations and to provide appropriate foraging and nesting habitat for fauna species present and expected to occur on the site.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.10.4	Floristic and structural diversity will be maximised by: Incorporating a range of plant species from all strata of each community that is being recreated; Including species characteristic of each community that provide forage value for native fauna; Including a range of nectar producing plants to ensure a supply of nectar for native fauna; and Ensuring a diversity of ground cover vegetation and habitat components such as leaf litter and logs to provide habitat for animals including invertebrates which provide food for other animals.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.10.4	Species characteristic of the target communities but not endemic to the area will not be included in rehabilitation.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.10.5 Seed Collection and Propagation			
4.10.5	Revegetation will use seed that has been locally sourced, where possible. Seed of required quantity and quality will be sourced as needed with seeds sourced from the Hunter Valley preferred. Provenance should be recorded for future reference.	A review of site documentation conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.10.5	Seed should be collected from all strata including grasses and groundcovers where suitable species are available. Suitable seed collection techniques include: Brush harvesting, to obtain seeds from a diversity of understory species; Suction or vacuum harvesting of grass species with less persistent seed (e.g. Microlaena stipoides); and Hay strewing which may be appropriate in selected areas with low weed	A review of site documentation conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.10.5	Collected seed should be assessed for viability and germination rates of target species and weed species noted. Particular areas and/or plants with high seed viability of target species should be noted for future reference.	Information on germination and viability is not provided by the seed supplier, and does not appear to have been otherwise recorded by the site. However, as seeding has not occurred during the audit period, this requirement has also not been triggered during the audit period.	Not Triggered
4.10.5	Plant propagation will be undertaken by a professional horticulturalist, following recognised horticultural practices.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.10.5	All plants will be suitably disease and pest-free, hardened off and well-watered at the time of planting. Newly planted tube stock may be accompanied with tree guards to protect the fresh foliage from predation, and from possible spray drift resulting from maintenance weeding operations.	These requirements were confirmed during a site visit conducted by the auditors.	Compliant
4.10.6 Seeding and Planting			
4.10.6	For each species used in revegetation, the following information should be documented, were possible: Seed provenance (source and location collected); Date of harvest/collection and method; Method of storage; Any pre-treatment or scarification methods used; Species germinated and germination rates; Numbers and species propagated and by whom; and Application method (e.g. tubestock, direct seeding, etc.).	A review of site documentation confirmed that these requirements are being carried out.	Compliant
4.10.6.1 Direct Seeding			
4.10.6.1	The revegetation of areas will be undertaken using direct seeding techniques. Direct seeding should take place between September and May.	There is a reference in the 2012 AEMR to rehabilitation being taken until December. However the AEMRs do not clearly state when rehabilitation works have taken place. It is recommended that this be clarified in future AEMRs.	Compliant - Recommendation Made
4.10.6.1	Direct seeding may be undertaken using a range of techniques. The method chosen will be appropriate to the size and gradient of the area being revegetated. The surface is to be ripped as described in Section 4.10.2 above, then the seeds will be broadcast with mechanical spreaders (or by hand for small areas). Fertiliser may be spread mixed with the seed at a rate appropriate to the seed mixture and soil conditions. Broadcasting agents and soil ameliorants such as kitty litter or compost may also be spread with the seed as required. Fine or light seeds are particularly likely to require broadcasting agents to ensure an even distribution and protect against loss of windblown seed.	Section 5.2 of the 2012, 2013 and 2014 AEMRs reference this direct seeding having been undertaken.	Compliant
4.10.6.1	Specific densities for direct seeding will be determined by available seed volumes and the target density of each stratum for the particular community being recreated.	Tables 40 and 41 of the 2014 AEMR indicate these densities.	Compliant
4.10.6.1	Supplementary tube stock planting may be undertaken after direct seeding has taken place to fill any gaps in germination and to determine the final species composition if required.	This was noted, however the audit did not require a finding to be made against this commitment	Not Triggered

4.10.6.2 Tube Stock Planting			
4.10.6.2	The planting specifications for canopy (trees), mid-storey shrubs and groundcovers should be informed by monitoring data collected from the reference sites located within the Drayton Wildlife Refuge (see Section 4.14).	Section 5.2 of the AEMR 2014 indicates that in 2014, annual flora and fauna monitoring took place. However the results and further details of this monitoring are not provided. AEMR summary also doesn't reflect the numbers of various species that were planted. As such, it is not possible to conclude that this requirement was carried out.	Compliant
4.10.6.2	Plant losses are to be replaced rather than being planted at higher densities to ensure an open canopy is retained in the long term. Planting and replacement planting should occur during the optimal seasonal conditions to ensure maximum plant retention. This is likely to be autumn and winter, as temperatures are cooler and rainfall is higher but may be year round, depending on local weather conditions in the months prior to planting.	Section 5.3 of the 2012 AEMR, Section 5.4 of the 2013 AEMR and Table 42 of the 2014 AEMR reference this additional tubestock planting having been undertaken. However there is no confirmation of timing requirements for this planting.	Compliant
4.10.6.2	Tube stock planting of seedlings will be used to supplement assisted natural regeneration methods and to achieve the desired density of plants as needed. Tube stock plantings will be used largely to help establish a diverse canopy and mid-storey however, selected understory species may also be introduced via planting where direct seeding is ineffective for establishment of certain target species.	Section 5.3 of the 2012 AEMR, Section 5.4 of the 2013 AEMR and Table 42 of the 2014 AEMR reference this tubestock planting having been undertaken.	Compliant
4.10.6.7 Transfer of Structural Components			
4.10.7	Fauna habitat values should be preserved in the local environment by transferring key habitat components from clearance areas to rehabilitation and offset areas. Measures that are used to enhance fauna habitat values on rehabilitated areas include installing or transferring large habitat components such as: Fallen logs and other large woody debris; Large rocks; Large mature tees (stags), particularly those with hollows; and Nest boxes as artificial hollows.	These requirements were confirmed during a site visit conducted by the auditors.	Compliant
4.11 Maintenance			
4.11	Maintenance will focus on bringing the rehabilitation and offset areas to a standard that meets the objectives and targets. Rehabilitation areas will be safe, stable and self-sustaining.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.11.1 Erosion Control			
4.11.1	Ongoing water quality monitoring assessing parameters, including total dissolved solids and suspended solids, will be maintained until such time as runoff quality is of an acceptable standard consistent with that present in applicable receiving waters.	Water quality monitoring continues to take place at the site as per the requirements of EPL 1323 and the *Water Management Plan* (Anglo Coal, November 2009). The site operates as a no-water-discharge site.	Compliant
4.11.1	Surface water runoff from rehabilitated areas will be contained and managed onsite until such time as those areas are approved and signed of as acceptable by the DRE.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.11.1	Ongoing maintenance of installed structures may also be required from time-to-time to ensure continued protection against erosion and to ensure stability of slopes is maintained in accordance with Drayton's existing Erosion and Sediment Control Plan.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.11.2 Controlling Access			
4.11.2	The Southern Offset Area has been delineated as a restricted work area. Access to the area is controlled by the OCE. Access is granted by Drayton only to authorised personnel for environmental and water management works.	These requirements were confirmed during a site visit conducted by the auditors.	Compliant
4.11.2	Increasing visible delineation via signage and boundary markers is under consideration. Further delineation will be installed as needed.	Additional boundary signage was installed at the site during 2012, as reported in Section 3.19 of the 2012 AEMR.	Compliant
4.11.2	Fencing will be reassessed in the event that either unauthorised access or stock encroachment onto this land becomes likely due to changes in surrounding land uses.	This has not occurred during the audit period.	Not Triggered
4.11.3 Weed Control			
4.11.3	Weed control efforts are essential to the success of the ROMP and will be ongoing in order to promote the establishment of native vegetation communities.	This has been undertaken during the audit period, as outlined in Section 3.8 of the 2012 and 2013 AEMRs, and Section 3.9 of the AEMR 2014.	Compliant
4.11.3	A weed map for the site will be maintained on the Drayton GIS system and is to be updated biannually to assess the progress of weed control programs.	This mapping is maintained and updated as outlined in Section 3.8 of the 2012 and 2013 AEMRs, and Section 3.9 of the AEMR 2014. Screenshots of GIS layers were provided to the auditors to show how weed mapping is updated when weed mitigation works are undertaken.	Compliant
4.11.3	Rehabilitation and offset areas are assessed for weeds and treated a minimum of twice per year in autumn and spring.	This mapping is maintained and updated as outlined in Section 3.8 of the 2012 and 2013 AEMRs, and Section 3.9 of the AEMR 2014. Screenshots of GIS layers were provided to the auditors to show how weed mapping is updated when weed mitigation works are undertaken.	Compliant
4.11.3	All weeds treated onsite are mapped each year and the map is to be included in the AEMR.	These maps were provided in Section 3.8 of the 2012 and 2013 AEMRs, and Section 3.9 of the AEMR 2014.	Compliant
4.11.3	Broad scale herbicide application is not suitable in the Northern Offset Area or any part of the Southern Offset Area containing native vegetation. Where possible, weeding should be carried out in sympathy with seasonal variations in rainfall and weed growth, botanical flowering times and treatment affectivity.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.11.3	Weed outbreaks in the rehabilitation and offset areas are to be monitored and control measures undertaken are to be reported in the AEMR. Weed species are controlled on an ongoing basis as needed.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant

4.11.3	All weeds should ideally be removed prior to flowering, or at flowering prior to seed set. Flowering or fruiting plants are high priority, particularly due to the connected nature of ecosystem components downstream. Preventing greater weed invasion offsite will be mitigated by the strategic efforts employed onsite.	This has been undertaken during the audit period, as outlined in Section 3.8 of the 2012 and 2013 AEMRs, and Section 3.9 of the AEMR 2014.	Compliant
4.11.3	Table 3 presents a list of weed species that have been recorded on Drayton land. Occurrences of these species in the offset areas should be controlled as needed. In addition to the weeds recorded here, other species are likely to occu spontaneously from nearby areas and may also need to be controlled. Weed control efforts are currently focused on listed noxious species and/or highly invasive species with the potential to affect revegetation efforts through competition for resources.	This has been undertaken during the audit period, as outlined in Section 3.8 of the 2012 and 2013 AEMRs, and Section 3.9 of the AEMR 2014.	Compliant

Appendix O

Audit Protocol: *Final Void Management Plan* (Anglo Coal, November 2008)

Appendix O Audit Protocol: *Final Void Management Plan* (Anglo Coal, November 2008)

Reference	Requirement	Evidence	Audit Finding
Final Void Management Plan, November 2008 (Anglo Coal (Drayton Management) Pty Ltd			
5 MANAGEMENT PLAN REQUIREMENT			
5.1 Responsibilities			
5.1	The Technical Services Manager is responsible for: · Incorporating specified design criteria and specifications into the mine planning phase of final voids.	This was noted. However, as these are general requirements, it was not considered necessary to make a finding against them.	Not Triggered
5.1	The Safety & Sustainable Development Manager (S&SD) Manager is responsible for: · Coordinating modelling by independent consultants as may be required to verify trends in monitoring.	This was noted. However, as these are general requirements, it was not considered necessary to make a finding against them.	Not Triggered
5.1	The Environment Coordinator is responsible for: · Monitoring, collecting and analysing monitoring data · Reporting on water quality and quantity within void management areas. · Assessing the impact of ground water ingress on final voids.	This was noted. However, as these are general requirements, it was not considered necessary to make a finding against them.	Not Triggered
5.2 Audit/Review Schedule			
5.2	This management plan is to be reviewed at least every three years or as otherwise directed by the Director-General of the NSW Department of Planning.	The review schedule for the *Final Void Management Plan* (Anglo Coal, November 2008) has not strictly followed this schedule. However the drafting of the latest Mining Operations Plan 2015-2020 evidences a commitment to review and update these requirements in consultation with the regulators.	Administrative non-compliance
5.2	The review process is to reflect independent environmental audit findings, changes in environmental legislation, standards and guidelines, and changes in technology or operational procedures.	The review schedule for the *Final Void Management Plan* (Anglo Coal, November 2008) has not strictly followed this schedule. However the drafting of the latest Mining Operations Plan 2015-2020 evidences a commitment to review and update these requirements in consultation with the regulators.	Compliant
5.2	In accordance with Project Approval (06_ 0202), at the end of year two of the development, and every three years from there on, Drayton will commission an independent environmental audit to the satisfaction of Director-General of the NSW Department of Planning. The audit will include an assessment of the adequacy of all management plans. Following the audit, this management plan may be updated if appropriate.	The previous audit provided recommendations on the Final Void Management Plan (Anglo Coal, November 2008) which appear to have been addressed in the latest draft Mining Operations Plan 2015-2020.	Compliant
5.3 Records Management			
5.3	All monitoring records for the management of final voids must be kept on file in the S&SD department for the duration of the life of mine plus any additional period required by statute or regulation.	The relevant records were able to be produced for the auditors during the site visit.	Compliant
5.6.1 Location and Proposed Future Use of Final Voids			
5.6.1	Locations of proposed final voids were nominated in the 2007 Environmental Assessment. There will be three final voids remaining post closure, located in the southern end of the East Pit, the eastern side of the East Pit and the northern end of the North Pit. Development of these voids will progress generally in accordance with this assessment and in consultation through regular meetings with DPI, Mt Arthur Coal and Macquarie Generation.	Evidence of this consideration was observed, for instance through the drafting of the latest Mining Operations Plan 2015-2020 in consultation with the authorities, Mt Arthur and AGL Macquarie.	Compliant
5.6.1	Ultimate use of the final voids has not been fully determined however Drayton is currently in discussion with various parties concerning the long term use of the voids. Firm arrangements and agreements have not been settled, however options do exist and will be explored with interested parties and progress will be included in the next Mining Operations Plan submission.	Evidence of this consideration was observed, for instance through the drafting of the latest Mining Operations Plan 2015-2020 in consultation with the authorities.	Compliant
5.6.2 Design Criteria and Specifications – Groundwater Implications			
5.6.2	Final voids will be designed in accordance with the existing and yet to be approved future Mining Operations Plans. Highwalls will be bunded at the crest with fencing being erected to prevent access from the public or wildlife and to prevent erosion. Low walls will be revegetated to a level of inferred water storage, with pastures and native tree corridors being established on the low wall slopes. Low walls will be designed in accordance with DPI requirements.	A review of documentation and the site inspection conducted by the auditors confirmed that final voids are generally being designed onsite according to these requirements.	Compliant
5.6.2	Rainfall and runoff will be diverted where possible away from final voids, however on low walls this will not be possible, and as such level spills will be constructed to successfully control water entry to the void.	A review of documentation and the site inspection conducted by the auditors confirmed that final voids are generally being designed onsite according to these requirements.	Compliant
5.6.4 Measures to be implemented to manage final voids			
5.6.4	Post mining, dewatering of the pits will be discontinued and the void space (porosity) of the spoil will gradually fill with water until an equilibrium water table level establishes within the spoil material. The final voids will therefore be sinks to groundwater seepage, will collect rainfall and runoff and will lose water through evaporation.	This has not been required during the audit period.	Not Triggered
5.6.4	A bund will be constructed at the top of the highwall around the final voids both for safety and to divert runoff away from highwalls to prevent erosion from occurring.	The site inspection conducted by the auditors confirmed that final voids are generally being designed onsite according to these requirements.	Compliant
5.6.4	Additional modelling will be undertaken on water held within the void to assess the long-term implications for both local and regional ground water flows. This shall include salinity and migration of elements. This shall be coordinated by the S&SD Manager and the Long-Term Planning Engineer and shall be incorporated into final landform design and establishment. A review of the water balance model for Anglo Coal Drayton Mine may also assist this capacity.	This has not been required during the audit period.	Not Triggered
5.6.4	If any adverse effects are derived from this modelling or physical data collection, strategies will then be implemented to minimise the potential for further degradation to surrounding ground water and watercourses, utilising the guidance of independent consultants. Details of any subsequent studies will be included in the AEMR.	This has not occurred during the audit period.	Not Triggered

5.6.5 Monitoring Measures			
5.6.5	It was considered, in the environmental assessment, that there is sufficient observation bores in existence to monitor the impacts on groundwater from the mining operation. Several of these bores have been in existence since pre mining and will remain after post mining for monitoring purposes, giving a vast amount of information available for baseline studies. Additional monitoring bores may be installed in the future to further assess post mining impacts.	This was noted, however the audit did not require a finding to be made against this requirement.	Not Triggered
5.6.5	Groundwater monitoring shall continue at three monthly sampling intervals. Sampling will be undertaken at selected bores that monitor groundwater systems in the East Pit, north and south of them mining areas. Groundwater monitoring shall also consist of both levels and quality.	This monitoring continues to be undertaken, as outlined in Section 3.4 of the 2013 and 2014 AEMRs.	Compliant
5.6.5	Off site bores on privately owned land will be monitored where possible for current land use, depth, yield and water quality, to provide baseline data against which potential impacts of mining can be monitored.	This monitoring has been undertaken.	Compliant

Appendix P

Audit Protocol: *Mine Closure Plan* (Anglo Coal, January 2009)

Appendix P Audit Protocol: *Mine Closure Plan* (Anglo Coal, January 2009)

<table>
<tr><th>Reference</th><th>Requirement</th><th>Evidence</th><th>Audit Finding</th></tr>
<tr><td colspan="4">Mine Closure Plan, January 2009 (Anglo Coal (Drayton Management) Pty Ltd)</td></tr>
<tr><td colspan="4">4 PROCEDURAL REQUIREMENT</td></tr>
<tr><td colspan="4">4.1 Responsibilities</td></tr>
<tr><td>4.1</td><td>Environment Coordinator
The Environment Coordinator shall be responsible for monitoring and recording all environmental monitoring and management aspects of mine closure. The Environment Coordinator shall also coordinate the revegetation and remediation of contaminated sites.</td><td>This was noted. However, as these are general requirements it was not considered necessary to make a finding against them.</td><td>Not Triggered</td></tr>
<tr><td>4.1</td><td>Safety & Sustainable Development (S&SD) Manager
The S & SD Manager shall be responsible for maintaining compliance with all regulations relating to the Anglo Coal Drayton Mine. The S&SD Manager shall oversee the stakeholder consultation process throughout mine closure.</td><td>This was noted. However, as these are general requirements it was not considered necessary to make a finding against them.</td><td>Not Triggered</td></tr>
<tr><td>4.1</td><td>Technical Services Manager
The Technical Services Manager shall oversee the compilation of final mine closure plans that meet regulatory and community expectations and signoffs.</td><td>This was noted. However, as these are general requirements it was not considered necessary to make a finding against them.</td><td>Not Triggered</td></tr>
<tr><td colspan="4">4.2 Audit/Review Schedule</td></tr>
<tr><td>4.2</td><td>This procedure shall be subject to a review during the preparation and submission of Drayton's Mining Operations Plan. The S & SD Manager shall be responsible for such review.</td><td>This consultation is evidenced by the preparation of the new Draft MOP which will run through until 2020.</td><td>Compliant</td></tr>
<tr><td colspan="4">4.3 Records Management</td></tr>
<tr><td>4.3</td><td>All records relating to mine closure details will be kept on file within the Anglo Coal Australia for a period of not less than five years post closure.</td><td>This has not been required during the audit period.</td><td>Not Triggered</td></tr>
<tr><td colspan="4">4.6.5 Closure Objectives and Criteria</td></tr>
<tr><td>4.6.5</td><td>Drayton's objectives of mine closure are as follows:
· Provide a landscape that is safe for the community;
· Minimise potential environmental impact and liability arising from mine closure;
· Remove any waste or potentially hazardous materials from site;
· Minimise the potential impacts from decommissioning;
· Develop landforms that return land affected by mining to a condition that is suitable for a range of sustainable land uses;
· To create a stable, free draining post mining landform, which is compatible with the surrounding landscape and which is capable of a productive land use that achieves a land capability equal to that of pre mining conditions;
· Establish vegetation that is self sustaining, perpetual and provides a sustainable habitat for local fauna and successive flora species. Drayton shall strive to achieve a long term sustainability for its land synchronised with the proposed end use of the land;
· To create a post mining landform which enhances the local and regional habitat corridors as presented in the Synoptic Plan: Integrated Landscapes for Coal Mine rehabilitation in the Hunter Valley of new South Wales (Synoptic Plan – DMR 1999)
· Develop land uses that benefit the future use of the site for the local community; and to
· Develop a landscape that reduces the requirement for long term monitoring and management.</td><td>The site was generally noted to be tracking toward this outcome during the site visit conducted by the auditors.</td><td>Compliant</td></tr>
<tr><td>4.6.5</td><td>To achieve these objectives, Drayton will be divided into domains that best represent the current and future options for each zone. Each domain will be assessed and a management plan will be developed for actual mine closure. Each domain will be integrated into an overall plan. The proposed long term objective of each domain is summarised in Table 2. A more intense domain assessment will be conducted within five years from mine closure.

Table 2: Long Term Domain breakdown
<table><tr><th>Domain Type</th><th>Proposed End Land Use</th></tr><tr><td>Existing open cut pit voids</td><td>Remain physically stable and closed to public access via high wall. Voids will fill naturally with groundwater. Other potential uses for final voids could include municipal dump, fly ash disposal for nearby coal fired power stations, tailing disposal for nearby mining operations, water supply for nearby mining and power generation, industrial landfill. Drayton has a number of voids available at the end of mine life and as such a combination of these uses may be considered and utilized.</td></tr><tr><td>Mining Infrastructure areas</td><td>Drayton has a number of large workshops and hardstand areas which would be ideal for industrial purposes. Drayton proposes that such buildings remain to be utilized for industrial purposes by external contractors. Dependent upon the requirements for the proposed Saddlers Creek development, this infrastructure may remain in use for this development. A final decision on this area will be determined closer to final mine closure.</td></tr></table></td><td>This has not been required during the audit period.</td><td>Not Triggered</td></tr>
</table>

	<table><tr><td>Coal Handling Plant and associated infrastructure</td><td>This domain will be dismantled and removed. The area would be ideal for industrial purposes. The area is proposed to be subdivided into industrial blocks. Dependent upon the requirements for the proposed Saddlers Creek development, this infrastructure may remain in use for this development. A final decision on this area will be determined closer to final mine closure.</td></tr><tr><td>Rail Infrastructure</td><td>This domain must remain. BHP Billiton's Mt Arthur Coal operation is a joint user of the Antiene Rail Spur and as such this infrastructure will remain in place. Dependent upon the requirements for the proposed Saddlers Creek development, this infrastructure may remain in use for this development also. A final decision on this area will be determined closer to final mine closure.</td></tr><tr><td>Water management Structures</td><td>Major dams on site will remain. These can be utilized as water availability for grazing of rehabilitated areas and for water supply for native fauna.</td></tr><tr><td>Rehabilitated areas</td><td>Active mining spoil piles will be progressively rehabilitated throughout the normal operations of the mine. Areas will be sown to improved pastures with native tree corridors also being established to allow for shelter, shade and safe passage for native animals through the rehabilitated areas. These areas will be progressively fenced and returned to grazing as the preferred use of this land.</td></tr><tr><td>Antiene area</td><td>This area consists of non mining impacted land. This land will be returned to grazing capacity.</td></tr><tr><td>Privately owned residential blocks in Antiene</td><td>These blocks will be sold</td></tr></table>		
4.6.7 Stakeholder Identification			
4.6.7	Stakeholder identification is integral in mine closure planning. Mine closure will have impacts on local communities, families, supporting industries and the social and economic aspects related to these. To enable the impacts of this to be fully considered, consultation with identified key groups will be transparent, consultative and informative.	Section 4.2 of the AEMRs 2012, 2013 and 2014 outlined the operation of the CCC for the relevant reporting periods.	Compliant
4.6.8 Post Closure Monitoring and Maintenance			
4.6.8	Post Closure monitoring and maintenance will demonstrate that the site is self sustaining and stable, with no detriment to the receiving environment being evident. It is estimated that a monitoring period of five years will be required to ensure sustainability under normal weather conditions. This is deemed sufficient time to demonstrate that the revegetation and rehabilitation of the site is successful and is self sustaining to natural environmental impacts. Water quality will also be monitored and landform stability is acceptable to NSW regulatory requirements.	This has not been required during the audit period.	Not Triggered
4.6.8	Decommissioning will occur when the site is rehabilitated to a level that is considered acceptable by the NSW Department of Primary Industries.	This has not been required during the audit period.	Not Triggered
4.6.8	Drayton proposes the following conceptual post closure monitoring and maintenance schedule. Table 4: Post Closure Monitoring Program <table><tr><th>Post Closure Year</th><th>Actions to be undertaken</th></tr><tr><td>Year 1</td><td>Quarterly revegetation survey Quarterly water quality sampling Quarterly groundwater assessment Undertake remediation work as may be required following outcome of revegetation survey Weed control as required</td></tr><tr><td>Year 2</td><td>Six monthly revegetation survey Undertake soil assessment on rehabilitation areas Quarterly water quality monitoring Quarterly groundwater assessment Weed control as necessary</td></tr><tr><td>Year 3</td><td>Annual revegetation survey Six monthly water quality sampling Six monthly groundwater assessment Biodiversity assessment</td></tr><tr><td>Year 4</td><td>Annual revegetation survey Six monthly water quality sampling Six monthly groundwater assessment Biodiversity assessment</td></tr><tr><td>Year 5</td><td>Biodiversity assessment Relinquishment</td></tr></table>	This has not been required during the audit period.	Not Triggered
4.6.9 Remediation			
4.6.9	Prior to mine closure, Drayton shall review it's contaminated sites register to assess the potential for contaminated lands on site. Identified potential contaminated sites will be assessed following NSW Department of Environment and Climate Change guidelines. Monitoring results will ultimately determine the disposal methods for each site.	This has not been required during the audit period.	Not Triggered
4.6.9	If analysis results indicate material requires offsite disposal, any material removed from site will be tracked and disposed of in accordance with the relevant legislation at the time of disposal.	This has not been required during the audit period.	Not Triggered
4,6,9	Following the removal of wastes, sites will be capped with suitable material, prior to revegetation.	This has not been required during the audit period.	Not Triggered
4.6.9	Any location on site that has been listed on the contaminated sites register shall be monitored through the post closure and monitoring program.	This has not been required during the audit period.	Not Triggered

<table>
<tr><td colspan="4">4.6.10 Revegetation</td></tr>
<tr><td>4.6.10</td><td>The majority of land at Drayton will be returned to grazing as the preferred long term option. Linked into these grazing zones, native tree corridors will be developed, in general accordance with the Synoptic Plan: Integrated Landscapes for Coal Mine Rehabilitation in the Hunter Valley of New South Wales. Figure 3 illustrates the general conceptual final rehabilitation landform as depicted in the 2007 Environmental Assessment.</td><td>The site was generally noted to be tracking toward this outcome during the site visit conducted by the auditors.</td><td>Compliant</td></tr>
<tr><td>4.6.10</td><td>The revegetation program at Drayton seeks to establish significant vegetated areas that result in a net increase in woodland vegetation and under storey development. It will also aim to establish as much floristic diversity as possible by utilising endemic plant species characteristic of the original flora in the areas and shall focus on the reestablishment of Hunter Lowland Redgum Forest species where possible.</td><td>This was generally noted to be occurring during the site visit conducted by the auditors.</td><td>Compliant</td></tr>
<tr><td>4.6.10</td><td>Initial revegetation will be completed on a progressive basis, as areas become available following mining operations using improved pasture species. Table 5 details typical application rates.

Table 5: Typical application rates
<table><tr><th>Pasture Sown</th><th>Spring Rate (kg/ha)</th><th>Autumn Rate (kg/ha)</th></tr><tr><td>Kangaroo Valley Rye</td><td>5</td><td>5</td></tr><tr><td>Seaton park Sub Clover</td><td>5</td><td>5</td></tr><tr><td>Haifa White Clover</td><td>10</td><td>10</td></tr><tr><td>Phalaris</td><td>10</td><td>10</td></tr><tr><td>Kikuyu</td><td>5</td><td>5</td></tr><tr><td>Hulled Couch</td><td>5</td><td>5</td></tr><tr><td>Millet</td><td>10</td><td></td></tr><tr><td>Sorghum</td><td>10</td><td></td></tr><tr><td>Lucerne</td><td></td><td>10</td></tr><tr><td>Oats</td><td></td><td>20</td></tr><tr><td>Granulok Fertiliser</td><td>250</td><td>250</td></tr></table></td><td>The species mix which has been employed is as per Table 40 in the AEMR 2014, which differs to the list provided here. However, many species listed in this typical species list are still included in the mix.</td><td>Compliant</td></tr>
<tr><td>4.6.10</td><td>Tree establishment will also be completed with the key species being sown being similar in nature to surrounding remnant vegetation. Major tree species include Eucalyptus maculata, E melliodora, E punctata, E tereticornis, E crebra, Casuarinas pp and Acacia spp. Understorey species will also be established such as hardenbergia, Acacia spp, Cassias and small native shrubs.</td><td>The auditors confirmed that these species are being planted.</td><td>Compliant</td></tr>
<tr><td colspan="4">4.6.11 Heritage</td></tr>
<tr><td>4.6.11</td><td>European Sites: A total of five sites were identified and recorded as required by the 2007 Part 3A approval process. Those sites remaining after mining completion will not be impacted and will not require additional closure monitoring or management.</td><td>This was noted, however the audit did not require a finding to be made against this requirement.</td><td>Not Triggered</td></tr>
<tr><td>4.6.11</td><td>Cultural Heritage Sites: A total of 39 sites were identified during the 2007 Part 3A approval process. Of these, 26 sites will be salvaged as necessary by the local Aboriginal representatives. The remaining 13 sites will be conserved at this point as they lie outside the zone of disturbance and as such these will remain intact. All sites have been fenced to restrict access and to preserve identified artefacts.</td><td>The site was not able to provide evidence of ongoing management/inspections of in situ Aboriginal heritage items which remain fenced off.</td><td>Administrative non-compliance</td></tr>
<tr><td>4.6.11</td><td>A salvage program will be undertaken in 2009 to retrieve the 26 sites. This will be completed in consultation with the local Aboriginal community and regulatory authorities. An Aboriginal Cultural Heritage Management Plan has been developed which details ongoing management of cultural heritage sites.</td><td>This has not been required during the audit period.</td><td>Not Triggered</td></tr>
<tr><td colspan="4">4.6.13 Baseline Environmental Data</td></tr>
<tr><td>4.6.13</td><td>General environmental effects resulting from mining operations should largely cease upon mine closure for most environmental aspects. These would include noise, dust, blasting and vibration. However, some aspects may require additional monitoring and measurement to continue post mining to minimise and manage any ongoing environmental effects left by the mining operation. These would largely include groundwater – both water quality and groundwater levels, and surface water quality in dams that remain post mining.</td><td>This was noted, however the audit did not require a finding to be made against this requirement.</td><td>Not Triggered</td></tr>
<tr><td>4.6.13</td><td>Groundwater
From the current monitoring information and the history associated with each of these piezometers, it is proposed that these piezometers be monitored for both water quality and standing water level for a period of up to five years post closure. Dependent upon ongoing analysis of these, monitoring may continue past this proposed period, however this would be in consultation and agreement with regulatory authorities at a future time.</td><td>This has not been required during the audit period.</td><td>Not Triggered</td></tr>
<tr><td>4.6.13</td><td>Water quality
Several dams will be retained post mining, primarily for water supply for grazing and native animals. These dams will rely on rainfall for replenishment and as such should return to ambient background levels post closure. Water quality will respond accordingly to rainfall, so timing of the return to natural levels will be totally dependent on weather conditions prevailing post closure. These dams will be monitored for water quality, in particular salinity levels, post closure for a period of five years, weather dependent though.</td><td>This has not been required during the audit period.</td><td>Not Triggered</td></tr>
<tr><td colspan="4">4.6.14 Progressive Rehabilitation</td></tr>
<tr><td>4.6.14</td><td>Drayton will undertake progressive rehabilitation during the life of the mining operation. This will result in post closure areas remaining to be rehabilitated to be minimised. The NSW Department of Primary Industries – Minerals requires rehabilitation to be undertaken on a progressive nature as per Mining Operation Plan commitments. An annual inspection is then undertaken to review progress against this plan.</td><td>Section 5 of the 2012, 2013 and 2014 AEMRs confirms that this has been undertaken during the audit period.</td><td>Compliant</td></tr>
</table>

4.6.15 Final Land Use			
4.6.15	Final land use options for Drayton have been considered in previous Mining Operations Plans as submitted to the Department of Primary Industries however these have been conceptual due to the life expectancy of the mine. Drayton is committed to a process of consultation with key regulatory authorities regarding final land use, considering the site as a total asset rather than separate landuses.	This consultation is evidenced by the preparation of the new Draft MOP which will run through until 2020.	Compliant
4.6.15	Some rehabilitation areas will be revegetated to open grazing land suitable for cattle grazing. Tree establishment is a key component of Drayton's rehabilitation plans. This ensures adequate shade and wildlife corridors to be established and effective prior to mine closure.	The site was generally noted to be tracking toward this outcome during the site visit conducted by the auditors.	Compliant
4.6.15	Industrial areas such as coal handling plant and associated infrastructure of buildings, workshops, administration buildings may serve a useful purpose to local industries and community. Final land use options for these will be investigated closer to mine closure following a consultative process involving key stakeholders such as community, industry, local council and regulatory authorities.	This has not been required during the audit period.	Not Triggered
4.6.18 Documentation , Reporting and Records Management			
4.6.18	Documentation including all reports, data, records and inspections will be retained by Drayton during the mine closure process. All information pertaining to mine closure will be retained for a period of at least seven years, post finalization of closure at a location to be determined at mine closure. Administration of these records will be the responsibility of an independent body. It has not been determined at this point in time the final logistics of this information, however any information relevant to mine closure and post closure monitoring will be available to authorities as may be required.	This has not been required during the audit period.	Not Triggered
4.6.18	Annual reporting of post closure performance of rehabilitation works will be completed and submitted to relevant authorities. These annual reports will be completed to the standard applicable to the relevant authorities at the time of closure.	This has not been required during the audit period.	Not Triggered
4.6.19 Aesthetics			
4.6.19	During the Part 3A approval process, a visual impact assessment was conducted. Visually, it was found that Drayton has a low visual impact on the local community, except for a small mining area adjacent to Thomas Mitchell Drive. Progressive rehabilitation will be visual, however should by unobtrusive. A tree buffer adjacent to Thomas Mitchell Drive should assist this aesthetic aspect. Additional trees will be planted within this buffer zone, if it is evident that the current buffer is inadequate for visual amenity.	This tree screen was observed by the auditors during the site visit and was found to be in good condition.	Compliant
4.6.19	Areas of rehabilitation will appear as open grazing land with tree establishments breaking up the expanses of grazing land. Trees that have been established will be native and shall foster self seeding in those areas where trees have been established for an extended period.	The site was generally noted to be tracking toward this outcome during the site visit conducted by the auditors.	Compliant
4.6.19	Areas to the north, which will be visual to the Thomas Mitchell Drive area, will have native trees established on the northern face. Figure 6 below is indicative of the long term rehabilitation of the NN pit adjacent to Thomas Mitchell Drive.	The site was generally noted to be tracking toward this outcome during the site visit conducted by the auditors.	Compliant
4.6.20 Ongoing Measures To Minimise And Manage Environmental Effects			
4.6.20	During the decommissioning process of the mine, all current parameters will still be monitored for compliance with statutory and regulatory conditions. All monitoring information will be reported, summarised and analyses in the Annual Environment Management Report. Monitoring shall continue until the decommissioning phase has been completed.	This has not been required during the audit period.	Not Triggered
4.6.20	If during the decommissioning phase it is revealed that environmental effects such as dust or noise levels are of concern, operational controls will be implemented to manage and minimise the impact on the local community and environment.	This has not been required during the audit period.	Not Triggered
4.6.20	Post decommissioning monitoring will consist of groundwater quality and standing water levels and surface water quality as per section 4.6.8.	This has not been required during the audit period.	Not Triggered

4.6.21 Risk Assessment

Table 7: Risk Assessment on Mine Closure

KEY ISSUE	DETAILED ASPECTS	ISSUES	PRE CONTROL RISK RANK	CONTROLS (IMPLEMENTED/PLANNED)	WHO	WHEN
COMMERCIAL	REHABILITATION PROVISIONING	Is the Rehabilitation Liability Template (RLT) Adequate?	H	Annual review of template and costings	Comm Mgr / Env Coord	Business Plan (Annual)
		Are there sufficient funds available?				
		Is the RLT calculated accurately?				
ENVIRONMENT	BASELINE DATA	Is there adequate baseline environmental data	H	Annual review in Annual Environment Management Report	S&SD Mgr / Env Coord	AEMR
		Is additional and ongoing monitoring required (eg water, biodiversity)		Conduct a gap analysis or peer review	S&SD Mgr / Env Coord	2010
LEGAL	LEGAL OBLIGATIONS	Is Drayton in compliance with current consent and approval conditions	M	Undertake compliance auditing	S&SD Mgr / Env Coord	As per consent approvals
		Is Drayton keeping up with any legal and legislative changes		Continue involvement with NSWMC and ACA	S&SD Mgr / Env Coord	Ongoing
		Is Drayton compliant with the Workplace Relations Act 1996			HR	Ongoing
		Is Drayton in compliance with the consent agreement			HR	Ongoing

KEY ISSUE	DETAILED ASPECTS	ISSUES	PRE CONTROL RISK RANK	CONTROLS (IMPLEMENTED/PLANNED)	WHO	WHEN
STAKEHOLDER	STAKEHOLDER INVOLVEMENT	Does Drayton understand government expectations involving mine closure	M	Document and agree mine closure standards with DPI	S&SD Mgr / Env Coord	Next MOP
		Does Drayton understand community expectations involving mine closure		Continue Community Consultative Committee forum	S&SD Mgr / Env Coord	Ongoing
		Does Drayton understand stakeholder expectations		Develop stakeholder engagement strategy	S&SD Mgr / Env Coord	2010
LEGACIES	SPONTANEOUS COMBUSTION	Potential development of spontaneous combustion in rehabilitation	H	Spontaneous Combustion Management Plan; Increased monitoring and surveillance (eg thermal assessments)	S&SD Mgr / Env Coord	Ongoing
		Correct utilisation of capping material		Monitoring of capping material and placement	TES Mgr, Geologist	Ongoing
	WATER	Ongoing management of final voids	M	Rehabilitation Management Plan and Final Void Management Plan	S&SD Mgr / Env Coord	Next MOP
		Management of water quality in final voids		Explore and research options in remote and innovative monitoring	S&SD Mgr / Env Coord	2010
		Management of salinity of water in final voids		Explore and research options in remote and innovative monitoring	S&SD Mgr / Env Coord	2010
		Management of ash disposal		Develop ash management plan in consultation with supplier	TES Mgr, S&SD Mgr	2012
		Management of tailings		Develop tailings management plan in consultation with supplier	TES Mgr, S&SD Mgr	2012

KEY ISSUE	DETAILED ASPECTS	ISSUES	PRE CONTROL RISK RANK	CONTROLS (IMPLEMENTED/PLANNED)	WHO	WHEN
LEGACIES	WATER	Management of runoff and discharge in/out of final void	M	Rehabilitation Management Plan and Final Void Management Plan	S&SD Mgr / Env Coord	Next MOP
		Are there other final use opportunities (eg waste disposal, aquaculture)		Explore and research options	S&SD Mgr / Env Coord	Next MOP
	REHABILITATION	Is the current rehabilitation of an acceptable quality to regulators	L	Follow Mining Operations Plan and final landform design; Review ongoing maintenance requirements Continue annual review process with DPI	Mine Mgr / TES Mgr / S&SD Mgr	Ongoing
		Will there be a backlog of rehabilitation at the end of mine life	H	Develop a life of asset business plan/ rehab plan (including final MOP landform)	TES Mgr	2010
HR	EMPLOYEES	Lack of sufficient workforce planning	M	Identify of potential retirements, redundancies, redeployments and business critical roles for the closure of the mine. Develop a labour engagement strategy	HR	2010
		Employee transition to post Drayton life	M	Engagement of out-placement service	HR	2yrs pre mine closure
		Contractor management	M	Review of contractual terms and obligations by all contract holders	HR	2yrs pre mine closure

KEY ISSUE	DETAILED ASPECTS	ISSUES	PRE CONTROL RISK RANK	CONTROLS (IMPLEMENTED/PLANNED)	WHO	WHEN
HR	EMPLOYEES	Consult and engage with relevant external bodies	M	Develop an appropriate strategy for CFMEU, workplace authority and long service board	HR	2yrs pre mine closure
DECOMMISSIONING & REMEDIATION		Final Mine plan and Infrastructure plan	L	Develop a decommissioning plan	S&SD Mgr	2012
		Ongoing management of contaminated sites	M	Review contaminated sites register	Env Coord	2009
				Minimise the occurrence of new sites.	Mine Mgr	Ongoing
				Develop a detailed management plan for mine closure	EC/S&SD	2012
HEALTH & SAFETY	WORKERS COMPENSATION / CASES	Management of hearing loss claims	H	Conduct health assessments to establish baseline data	S&SD Mgr / OHS Advisor	Ongoing
				Increase noise exposure monitoring	S&SD Mgr / OHS Advisor	Ongoing
		Management of ongoing claims, new cases and legal aspects	H	Implement regular health assessments	S&SD Mgr / OHS Advisor	2010
				Continue proactive injury management practices	S&SD Mgr / OHS Advisor	Ongoing
				Establish regular case reviews with CMI	S&SD Mgr / OHS Advisor	2010
				Implement an electronic medical file system	S&SD Mgr / OHS Advisor	2012
				Conduct exit medicals for all personnel	S&SD Mgr / OHS Advisor	Final Year

KEY ISSUE	DETAILED ASPECTS	ISSUES	PRE CONTROL RISK RANK	CONTROLS (IMPLEMENTED/PLANNED)	WHO	WHEN
HEALTH & SAFETY	CHRONIC HEALTH DISEASES	Risks related to chronic health diseases	H	Conduct occupational monitoring	S&SD Mgr / OHS Advisor	Ongoing
	SITE SECURITY	Ensuring site security is adequate during decommissioning	M	Include site security in decommissioning management plan	S&SD Mgr	2012
TENEMENT RELINQUISHMENT	DPI APPROVAL	What is the standard for decommissioning	M	Document and agree the standard of decommissioning with regulatory authorities	S&SD Mgr	2011
		No tenements relinquished to date in local region....why?	M	Investigate with regulatory bodies	S&SD Mgr	2011
POST CLOSURE	MONITORING	Is there a risk of insufficient monitoring and maintenance (environmental)	L	Include in decommissioning plan	S&SD Mgr	2012
		What is the time frame for decommissioning		Include in decommissioning plan	S&SD Mgr	2012
DOCUMENTATION MANAGEMENT		Failure to locate key documents post closure	H	Consider document control of records management in decommissioning plan	S&SD Mgr	2012
				Identify documents required to be retained	SLT	2011
OFFSET MANAGEMENT	POST CLOSURE	Management of Offset area	M	Include in offset strategy	S&SD Mgr	2009

This has not been required during the audit period.

Not Triggered

Appendix Q

Audit Protocol: *Aboriginal Cultural Heritage Management Plan* (Anglo Coal, October 2008)

Appendix Q Audit Protocol: *Aboriginal Cultural Heritage Management Plan* (Anglo Coal, October 2008)

Reference	Requirement	Evidence	Audit Finding
Aboriginal Cultural Heritage Management Plan, October 2008 (Anglo Coal (Drayton Management) Pty Ltd)			
4 PROCEDURAL REQUIREMENT			
4.1 Responsibilities			
4.1.1	**General Manager** The site is managed by Anglo Coal's General Manager, who has overall responsibility for ensuring that contractors, employees and service providers comply with all laws, regulations, licences, approvals and conditions of consent. The responsibilities of the General Manager include the following: · Ensure that plans and strategies are in place to fulfil all requirements of the development consent and regulatory licenses and approvals; and · Ensure that appropriate reviews and audits are undertaken and appropriate actions implemented with respect to findings.	This was noted. However, as these are general requirements non-specific to the A*boriginal Cultural Heritage Management Plan* (Anglo Coal, October 2008), it was not considered necessary to make a finding against them.	Not Triggered
4.1.2	**Safety & Sustainable Development Manager** The Safety & Sustainable Development Manager has specific responsibility (and commensurate authority) to ensure that all personnel on site conform to the requirements of the relevant environmental laws, regulations, consents, approvals, systems and plans. The responsibilities of the Safety & Sustainable Development Manager include the following: · Implementation of the requirements of the Development Consent, relevant leases and licences and the EMPs; · Undertake regular inspections and audits to validate the implementation of the approved EMPs, licenses and approvals; · Advising and considering matters as specified in the conditions of consent; · Prepare and undertake an environmental induction and training program for all employees and contractors undertaking activities on the site; · Provide representation on the Community Consultative Committee (CCC); · The management of an effective environmental monitoring program, including periodic and real time monitoring stations to ensure continual compliance with the conditions of the development consent and applicable licences and approvals; · Environmental reporting, including the Annual Environmental Management Report (AEMR); · Communications with statutory authorities and the community in respect to environmental matters, including the timely investigation of any complaints or conflicts; · Control of the Site Water Management System such as to ensure compliance with all licences and approvals; · Keeping abreast of new developments in environmental research and technology as it applies to coal mining operations; and · Providing advice on environmental matters.	This was noted. However, as these are general requirements non-specific to the A*boriginal Cultural Heritage Management Plan* (Anglo Coal, October 2008), it was not considered necessary to make a finding against them.	Not Triggered
4.1.3	**Departmental Managers** The responsibilities of the departmental Managers include the following: · Ensure that all operations are undertaken in accordance with relevant legislation; · Ensure that the requirements of the approved EMPs, licenses and approvals are implemented; and · Ensure that all contractors and service personnel are appropriately qualified to undertake the site works and have a good environmental record.	The site's Permit to Disturb Land Form does contain a requirement to consider the possible presence of Aboriginal heritage. However the overall site induction information does not contain information about cultural heritage (Aboriginal or otherwise).	Not Triggered
4.1.4	**Contract Managers** · Anglo Coal's selection of contractors will have regard to and consideration of their environmental performance. · Contractors will be required to undertake a risk assessment to identify the key risks and hazard mitigation measures and to provide an ECP for review prior to the commencement of work on site.	The site's Permit to Disturb Land Form does contain a requirement to consider the possible presence of Aboriginal heritage.	Compliant
4.2 Audit/Review Schedule			
4.2	Auditing is to be carried out where disturbance risks are likely to be highest within the mine development area. Records of on-site audits are to be kept up to date for yearly reviews and become part of the Annual Environmental Management Report.	This has not occurred during the audit period.	Not Triggered
4.3 Records Management			
4.3	Anglo Coal should maintain all cultural heritage site records within a central on-site register. These site records should be used during internal audits.	Site cards of Aboriginal cultural heritage items were sighted by the auditors.	Compliant
4.3	Construction plans and work instructions should identify sites and how they are to be avoided during mine operational work.	The site's Permit to Disturb Land Form does contain a requirement to consider the possible presence of Aboriginal heritage.	Compliant
4.3	Incident reports should be kept up to date and should be auditable.	This has not occurred during the audit period.	Not Triggered
4.3	All newly recorded sites and objects should be registered under Section 91 of the NPW Act with the DECC.	This has not occurred during the audit period.	Not Triggered
4.6.3 Impacts within Drayton mine Extension: Open Cut & Infrastructure area			
4.6.3	A total of 26 sites will be directly impacted by the proposed Drayton Mine Extension mine development. A majority of these sites that are to be impacted are located within the proposed Open Cut and Services Corridor area (i.e. D1-D22 Figure 2) and R1-R4 Figure 3). A services corridor will be built in the southern part of the extension area to provide uniform access to power-line infrastructure and coal transport facilities.	This has not occurred during the audit period.	Not Triggered
4.6.5 Drayton Mine Extension Project Approval Condition 43: Aboriginal Cultural Heritage Management Actions & Mitigation Measures.			
4.6.5	Subsequent to its Approval for the Drayton Mine Extension Project, Anglo Coal Drayton Management has agreed to implement the following mitigation measures and management actions to offset the lost of Aboriginal cultural heritage. Specifically Anglo Coal (Drayton Management) has agreed to:		
4.6.5	· Implement a programme of test excavations intensive recording, salvage, and surface collection of the sites identified in Table 2, which includes a suitable lithic analysis, of all material collected as part of the salvage operations;	This has not been required during the audit period.	Not Triggered
4.6.5	· Provide a plan of management for each site salvaged and report on the results of that scientific salvage work in a form acceptable to the participating Aboriginal communities, DECC and NSW DOP;	The site was not able to provide evidence of ongoing management/inspections of in situ Aboriginal heritage items which remain fenced off. However the salvage report was provided.	Compliant

4.6.5	· Implement a programme for the conservation of the existing sites outside the surface disturbance area;	The site was not able to provide evidence of ongoing management/inspections of in situ Aboriginal heritage items which remain fenced off. However the salvage report was provided.	Compliant
4.6.5	· Implement measures that would be taken if any Aboriginal skeletal remains are discovered during the project.	The management of skeletal remains is managed as part of this same management plan.	Compliant
4.6.5	· Develop a protocol for the on-going consultation and involvement of Aboriginal community stakeholder groups in the conservation and management of the Aboriginal heritage on the site.	No consultation with Aboriginal community stakeholders was reported during the AEMRs for the audit period. However, this was not necessarily required during the audit period, given the mining/rehabilitation activities that took place.	Compliant
4.7.1 Cultural Heritage Management Report			
4.7.1	Anglo Coal (Drayton Management) will develop Cultural Heritage Management Report (CHMR) for specific reporting of cultural heritage and salvage works either impacted by construction activities or preserved as a conservation item of Aboriginal heritage. The CHMR will not replace the Aboriginal Heritage Plan but will function as additional reporting document to be made available for auditing and compliance purposes.	The *Cultural Heritage Management Report on Drayton Mine Extension Project Open Cut and Services Corridor Areas* (Archaeology Risk Assessment Services, July 2010) fulfils these requirements.	Compliant
4.7.1	The CHMR will be prepared after the management measures outlined in this AHP have been implemented and a copy provided to DoP and DECC.	The *Cultural Heritage Management Report on Drayton Mine Extension Project Open Cut and Services Corridor Areas* (Archaeology Risk Assessment Services, July 2010) fulfils these requirements.	Compliant
4.7.1	The purpose of the CHMR will be to: · Describe the specific mitigation measures (including conservation measures, salvage and analysis of archaeological material and its reporting to DoP, DECC/Aboriginal Stakeholder groups) undertaken to manage a site or group of sites within Drayton Extension Project and services corridor over the life of the mine;	The *Cultural Heritage Management Report on Drayton Mine Extension Project Open Cut and Services Corridor Areas* (Archaeology Risk Assessment Services, July 2010) fulfils these requirements.	Compliant
4.7.1	· Ensure that the recovery and salvage works and archaeological analysis of a site or group of sites is carried out by a qualified archaeologist using best practice methodologies, with evidence of Aboriginal community involvement in all facets of the archaeological assessment;	The *Cultural Heritage Management Report on Drayton Mine Extension Project Open Cut and Services Corridor Areas* (Archaeology Risk Assessment Services, July 2010) fulfils these requirements.	Compliant
4.7.1	· Describe and identify any new Aboriginal sites or objects located as a result of the archaeological salvage process in accordance with the principals of Section 91 of the NPW Act (1974) as amended; and	The *Cultural Heritage Management Report on Drayton Mine Extension Project Open Cut and Services Corridor Areas* (Archaeology Risk Assessment Services, July 2010) fulfils these requirements.	Compliant
4.7.1	· Provide a timetable and means of communication on how the site or group of sites is being managed/conserved using Drayton Coal's environmental management systems process.	The *Cultural Heritage Management Report on Drayton Mine Extension Project Open Cut and Services Corridor Areas* (Archaeology Risk Assessment Services, July 2010) fulfils these requirements.	Compliant
4.7.1	Two areas with groups of sites and objects have been identified in the Open Cut and services corridor development area for the preparation of specific CHMR's and these are: · Ramrod Creek catchment; and · Delpah Open Cut and Services Corridor area.	The *Cultural Heritage Management Report on Drayton Mine Extension Project Open Cut and Services Corridor Areas* (Archaeology Risk Assessment Services, July 2010) fulfils these requirements.	Compliant
4.7.1	As part of the CHMR reporting requirements, Anglo Coal (Drayton Management) will ensure that all archaeological material recovered as a result of archaeological excavation and salvage activities including post excavation laboratory analysis is reported to DoP, DECC North-West Branch, Environment Protection and Regulation and Aboriginal Stakeholder groups within 12 months of the salvage work being undertaken.	This has not been required during the audit period.	Not Triggered
4.7.1	The reporting of the results of the site specific salvage and post excavation analysis will include: · Aims of the archaeological investigation including research design; · Scientific methods used in the salvage recovery works and post excavation analysis (includes lithic analysis, dating results and geomorphology); · Results and discussion of the investigation with a comparative analysis of the significance of the site specific investigation; and · Data records (Lithic Analysis, Artefact Attributes, Residues Analysis, Use wear characteristics, etc.) showing excavated or surface artefactual information and any data that can be of benefit to the curation of the recovered archaeological materials.	This has not been required during the audit period.	Not Triggered
4.7.2 Programme of Salvage & Retrieval of Aboriginal Sites & Objects			
4.7.2	Anglo Coal (Drayton Management) seeks to implement mitigation measures to offset the loss of cultural resources within the Drayton Mine Extension Project development area. These measures include allowing sites to be collected and salvaged or tested through archaeological excavation to determine if more subsurface material can be recovered before total destruction. Specific salvage methods for each Aboriginal site or object are identified in Appendix 4.	No salvage/disturbance works took place during the audit period.	Not Triggered
4.7.2	This work will be carried out in the following areas: · Ramrod Creek: A total of 4 sites would be affected by the proposed Open Cut Pit at Ramrod Creek these are: R1, R2, R3 & R4. All of these sites represent varying density scatters of artefacts fringing the margins of Ramrod Creek (Figure 3). · Delpah Dam and surrounding areas. A total of 22 sites will be affected by the proposed Open Cut Pit including, access roads and services corridor these are: D1-D22. All of these sites represent low density scatters of artefacts located within an eroding context (Figure 2).	No salvaged/disturbance works took place during the audit period.	Not Triggered

4.7.2	Table 3 below summarise the proposed Anglo Coal (Drayton Management) mitigation procedures for identified Aboriginal heritage in the Open Cut and Infrastructure areas. Table 3 Anglo Coal (Drayton Management) ACHMP Mitigation Open Cut & Services Corridor: Cultural Heritage Work Programme **DECC Site Number / Site Name / Site Type / X Centre / Y Centre / Artefact Density / Mitigation Measure** 37-2-2325 / D1 / Artefact Scatter / 305074 / 6416069 / 55 / Surface Collection 37-2-2320 / D2 / Isolated Find / 305176 / 6460550 / 1 / Surface Collection 37-2-2321 / D3 / Artefact Scatter / 305279 / 6416047 / 3 / Surface Collection 37-2-2322 / D4 / Artefact Scatter / 305230 / 6415960 / 5 / Surface Collection 37-2-2326 / D5 / Artefact Scatter / 305215 / 6415891 / 31 / Surface Collection 37-2-2327 / D6 / Isolated Find / 305583 / 6416460 / 1 / Surface Collection & Grader Scrapes 37-2-2328 / D7 / Isolated Find / 304469 / 6416633 / 1 / Surface Collection 37-2-2348 / D8 / Artefact Scatter / 305350 / 6415942 / 6 / Surface Collection 37-2-2349 / D9 / Artefact Scatter / 305504 / 6415960 / 4 / Surface Collection 37-2-2350 / D10 / Artefact Scatter / 305660 / 6415981 / 28 / Surface Collection 37-2-2351 / D11 / Artefact Scatter / 305421 / 6416050 / 26 / Shovel Testing & Grader Scrapes 37-2-2352 / D12 / Isolated Find / 305283 / 6415888 / 1 / Surface Collection 37-2-2353 / D13 / Isolated Find / 305337 / 6415875 / 1 / Surface Collection 37-2-2354 / D14 / Artefact Scatter / 305781 / 6415786 / 2 / Surface Collection 37-2-2355 / D15 / Artefact Scatter / 306003 / 6415415 / 5 / Surface Collection 37-2-2356 / D16 / Artefact Scatter / 304942 / 6415925 / 2 / Surface Collection 37-2-2357 / D17 / Isolated Find / 304809 / 6415854 / 1 / Surface Collection 37-2-2358 / D18 / Isolated Find / 304847 / 6415798 / 1 / Surface Collection 37-2-2359 / D19 / Artefact Scatter / 304940 / 6415628 / 4 / Surface Collection 37-2-2360 / D20 / Artefact Scatter / 305054 / 6415475 / 3 / Surface Collection **DECC Site Number / Site Name / Site Type / X Centre / Y Centre / Artefact Density / Mitigation Measure** 37-2-2361 / D21 / Artefact Scatter / 304680 / 6415390 / 4 / Surface Collection 37-2-2362 / D22 / Artefact Scatter / 304491 / 6415684 / 2 / Surface Collection 37-2-2338 / R1 / Artefact Scatter / 303622 / 6420533 / 33 / Surface Collection 37-2-2339 / R2 / Isolated Find / 303676 / 6420568 / 1 / Surface Collection 37-2-2340 / R3 / Artefact Scatter / 303739 / 6420466 / 169 / Test Excavation and Grader Scrapes 37-2-2341 / R4 / Artefact Scatter / 303691 / 6420285 / 71 / Test Excavation and Grader Scrapes 37-2-2342 / R5 / Isolated Find / 305541 / 6420814 / 1 / Fenced Off 37-2-2343 / R6 / Artefact Scatter / 305781 / 6420794 / 3 / Fenced Off 37-2-2344 / R7 / Isolated Find / 305043 / 6420543 / 1 / Fenced Off 37-2-2345 / R8 / Isolated Find / 305423 / 6420729 / 1 / Fenced Off 37-2-2346 / R9 / Isolated Find / 305387 / 6420827 / 1 / Fenced Off 37-2-2347 / R10 / Isolated Find / 305655 / 6420655 / 1 / Fenced Off 37-2-2329 / R11 / Artefact Scatter / 304886 / 6420480 / 4 / Fenced Off 37-2-2330 / R12 / Artefact Scatter / 304779 / 6420491 / 2 / Fenced Off 37-2-2350 / R13 / Isolated Find / 304076 / 6420394 / 1 / Fenced Off 37-2-2332 / R14 / Isolated Find / 304265 / 6420669 / 1 / Fenced Off 37-2-2333 / R15 / Isolated Find / 304350 / 6420584 / 1 / Fenced Off 37-2-2323 / R16 / Isolated Find / 304353 / 6420590 / 1 / Fenced Off 37-2-2324 / R17 / Isolated Find / 304333 / 6420486 / 1 / Fenced Off	The site was not able to provide evidence of ongoing management/inspections of in situ Aboriginal heritage items which remain fenced off. However the salvage report was provided.	Compliant
4.7.3	It would be the aim of the surface collections and test excavation process to investigate: · Whether occupation existed in the elevated southern ridge system (Delpah) of Drayton Extension area away from second or third order streams (see Kamminga 1978, Dean Jones & Mitchell 1993, Hamm 2002, Hamm 2005); · Were Aboriginal people exploiting wetland microhabitats within the extension area (see Russel & Hardy 2001, Hamm 2002, and Hamm 2005)? · What is the main function of the Drayton sites? Why are these sites located where they are? Is slope or distance to water an important site location factor? · Are there any distinct activities or behaviours that can be identified at each site through the assessment of stone artefacts or cultural features (i.e.. fireplaces, heat treatment areas, ground cleared of rock). Investigate rocky versus cleared ground. · Are sites isolated in their landscape context or connected through sub surface archaeological deposits? · Was Ramrod Creek important in the exploitation of the Bayswater Creek Valley by local Aboriginal people? · Artefact Distributions within sites and between sites; · Site Structures; · Artefact Variability and Stone Tool Reduction processes (with a special emphasis on backed tool use and manufacturing; and · Intactness and Integrity of Cultural Deposits.	No salvage works took place during the audit period.	Not Triggered
4.7.3	Additional questions to be considered are: 1. Are surface artefacts a real reflection of what is left at the site? 2. What are the main types of stone artefacts discarded on these sites? 3. Can the deposit be dated by OSL? 4. Can we locate any evidence of long term use at these sites (i.e. Hearths, major tool types)?	This was noted, however the audit did not require a finding to be made against this requirement.	Not Triggered
4.7.4 Research Methodology to be used in the Salvage & Retrieval Programme			
4.7.4	Due to the shallow nature of the sediments within these soil landscapes, three sub surface testing methods would be used. One would be hand excavation initially using 1m by 1m test pits or if this proved unsuccessful then applying systematic shovel testing over a grid network (i.e. shovel test pit= 1m x .5m x.3m) depending on stratigraphic parameters. The third method to apply would be to use mechanical testing using grader scrapes.	No salvage works took place during the audit period.	Not Triggered

4.7.4	It is anticipated that grader scraping will be undertaken using the following approach: · Straight line transects (approx, 50-100m in length) will be set out along a measured base line with a pre-determined grader blade width set between 2-3 metres wide; · Only areas containing boulder free ground will be selected. This is to avoid damaging potential sub surface features and larger implements that may be exposed; · The objective of each scrap is to remove a relatively uniform spit of soil (5-10cm in depth) depending on soil depth; and · As the soil is pushed into a windrow, this will be sampled at a pre-determined length with a consistent volume of soil examined for the presence of artefactual material. Material will be further wet sieved as required.	No salvage works took place during the audit period.	Not Triggered
4.7.4	If artefact densities increase during grading scraping, it will be necessary to move to a finer scale of test pitting. Some targeted test pitting (1m x 1m hand excavation) may assist to help determine the site's true spatial extent and allow the recovery of more artefactual material for analysis. Wet sieving may be used if it is likely that archaeological material has been affected by vertical movement in the soil profile.	No salvage works took place during the audit period.	Not Triggered
4.7.4	**Surface Collection** It is proposed to collect all archaeological material from the surface using a systematic method. Large open sites will be grided and artefacts will be collected according to an identified square. A 20m x 20m sample grid collection square would be used to retrieve most artefactual material.	No salvage works took place during the audit period.	Not Triggered
4.7.4	**Locating New Evidence of Occupation Following Grader Scraping (Mechanical Testing to Hand Excavation)** If artefact densities increase during grading scraping, it will be necessary to move to a finer scale of test pitting. Some targeted test pitting (1mx1m hand excavation) may assist to help determine the site's true spatial extent and allow the recovery of more artefactual material for analysis.	No salvage works took place during the audit period.	Not Triggered
4.7.4	**Ramrod Creek R3 and R4 Hand Excavations** Open area hand excavation is proposed for R3 & R4, with at least two 10m x 10m units to be investigated. Excavation would be controlled using a 1m-grid system. This 1m excavation grid would be further subdivided into 50cm square units to provide for greater recording precision if required.	No salvage works took place during the audit period.	Not Triggered
4.7.4	One 10m x 10m unit would be located within the area of main exposure of artefacts and another in an area without artefacts or exposure. The excavation will be undertaken using 5cm spits, by trowel and hand shovel and sieved through nested sieves (8-5-2mm).	No salvage works took place during the audit period.	Not Triggered
4.7.4	All features will be mapped at the appropriate scale. Bulk samples will be extracted from appropriate locations for the analysis of finer microdebitage. Charcoal and soil samples will be collected for dating and soil analysis. A single soil-testing trench will be excavated within the creek bank area to help define depositional history.	No salvage works took place during the audit period.	Not Triggered
4.7.4	Extension test pits would also be dug between the 10m x 10m units to provide greater coverage and assess occupation extent. These test pits would be 1m x 1m in size.	No salvage works took place during the audit period.	Not Triggered
4.7.4	**Analysis of Stone Artefactual Material** The central aim of the stone artefact analysis will be to provide data to test the model proposed. Assemblage character (type and function), raw material distribution and use, implement types and function are the main stone tool issues that need to be considered. Artefact analysis shall consist of: · Identification of artefact types through attribute analysis, (measuring attributes to define artefact types), size, cortex distribution, platform characteristics, edge angles, and breakage patterns on debitage; · Identification of artefact types through the analysis of residues and use wear will be undertaken. Particular emphasis will be placed on assessing a balanced sample that includes items retouched and items not retouched or unmodified; · Identification of different technological reduction processes will be investigated including the importance of raw material use, curation and discard strategies. These will be assessed using refitting or conjoining techniques and the analysis of shatter patterns, and lustre colour (heat treatment effects); · Identification of activity areas or knapping floors (workshop areas) using the above methods as well as analysing the results of mapping of features and artefact density patterns; and · Consideration of the effects of bioturbation and movement through soil creep on stone artefact distribution.	No salvage works took place during the audit period.	Not Triggered
4.7.4	**Analysis of Organic Materials** It is not expected that organic remains such as bone or shell will be found in sites tested or excavated. However, soil materials and possible seeds (i.e.. Acacia, native grasses (Kangaroo) will be investigated. Bulk samples will be extracted from excavated deposits for this purpose.	No salvage works took place during the audit period.	Not Triggered
4.7.4	**Dating Cultural Material** Submitting dating samples for OSL and Radio-carbon will be attempted if the right geo-archaeological conditions are present.	No salvage works took place during the audit period.	Not Triggered
4.7.4	**Curation of Artefacts** All artefacts recovered from archaeological monitoring or salvage are to be placed in a secured site for relocation until mine site rehabilitation takes place. The location of the salvage material will be dealt by a separate Native Title agreement. This process will be undertaken using a Care Agreement for Aboriginal Objects with the local Aboriginal Land Council.	No salvage works took place during the audit period.	Not Triggered

4.7.5 Conflict Resolution Procedure: Drayton Coal Internal Procedure Protocol			
4.7.5	To resolve potential conflicts between Aboriginal stakeholders and the Approved Project in relation to any issue (including the assessment of cultural values) Drayton Coal has implemented a Conflict Resolution Procedure which is detailed in Appendix 7. This procedure is managed by the General Manager Anglo Coal (Drayton Management).	This has not been required during the audit period.	Not Triggered
4.7.6 Conservation Programme			
4.7.6	**Conservation Methods** Anglo Coal (Drayton Management) will use the approval conservation methods and techniques to ensure sites are conserved outside the mine footprint: · Deciding on how big an area (area of buffer zone) should be used to protect the perimeter of the Aboriginal site object; · Using appropriate fencing to ensure machinery and vehicles do not disturbed the land surrounding the Aboriginal site or object; · Using accurate identification of sites using appropriate signage so that contractors and Anglo Coal staff know what the area is and why it is being protected; · Providing accurate up to date maps and plans with sites located on them so that all Anglo Coal staff and contractors know where sensitive "no go" areas are located within the mine operations area; · Controlling soil erosion impacts by implementing complimentary soil erosion control works around the site; and · Re-directing roads or vehicle tracks which may pass close to the site and could cause indirect impacts.	The site was not able to provide evidence of ongoing management/inspections of in situ Aboriginal heritage items which remain fenced off.	Administrative non-compliance
4.7.6	**Cultural Awareness Training Programme** To reduce the risk of Aboriginal site impacts and improve the general awareness of Anglo Coal staff and employees to Aboriginal cultural heritage issues, Anglo Coal will provide cultural awareness training to its staff and contractors as part of its Induction process. The will introduce contractors and staff to the fundamentals of why and how Aboriginal heritage and culture is protected in NSW and what their role is in protecting Aboriginal sites and object within the Drayton Mine lease.	The overall site induction information does not contain information about cultural heritage (Aboriginal or otherwise).	Administrative non-compliance
4.7.6	This training should also explain the procedure to be implemented if an existing or new Aboriginal site or object is uncovered or disturbed during mine operations work.	The overall site induction information does not contain information about cultural heritage (Aboriginal or otherwise).	Administrative non-compliance
4.7.7 Discovery of Skeletal Remains			
4.7.7	In the event that mining activity reveals possible human skeletal material (remains) within the Drayton Extension area, the following procedure is to be followed, also refer to Appendix 8:	Skeletal remains were not discovered during the audit period.	Not Triggered
4.7.7	1. As soon as remains are exposed, all work is to halt at that location immediately and the Safety & Sustainable Development Manager on site is to be immediately notified to allow assessment and management; 2. Safety & Sustainable Development Manager on site to notify Drayton Coal Mine Manager and/or General Manager; 3. Contact police by ringing 000; 4. Contact DECC's Environment line on 131 555 and the Heritage branch on (02) 9873 8500; 5. A physical or forensic anthropologist should inspect the remains in situ (organised by the police unless otherwise directed by the police), and make a determination of ancestry (Aboriginal or non- Aboriginal) and antiquity (precontact, historic or forensic); i. If the remains are identified as forensic the area is deemed as crime scene; or ii. If the remains are identified as Aboriginal, the site is to be secured and DoP, DECC and all Aboriginal stakeholders are to be notified in writing; or iii. If the remains are as non-Aboriginal (historical) remains, the site is to be secured and the Heritage Branch (DoP) is to be contacted.	Skeletal remains were not discovered during the audit period.	Not Triggered
4.7.7	The above process functions only to appropriately identify the remains and secure the site. From this time, the management of the area and remains is to be determined through one of the following means: A. If the remains are identified as a forensic matter liaise with the police; B. If the remains are identified as Aboriginal; liaise with the DoP, the DECC and Aboriginal stakeholders; C. If the remains are identified as non-Aboriginal (historical) liaise with the DoP and the Heritage Branch; or D. If the remains are identified as not being human then work can recommence once the appropriate clearances have been given.	Skeletal remains were not discovered during the audit period.	Not Triggered
4.7.8 Aboriginal Consultation Protocol			
4.7.8	Anglo Coal (Drayton Management) will continue to work with all Aboriginal community stakeholders in the development and implementation of this plan and provide mutually beneficial opportunities to all for the benefit of the entire local Aboriginal community.	No consultation with Aboriginal community stakeholders was reported during the AEMRs for the audit period. However, this was not necessarily required during the audit period, as no new Aboriginal cultural heritage deposits, skeletal remains, or salvage/disturbance activities took place.	Not Triggered
4.8 Aboriginal Heritage Risk Management Procedure			
4.8	Anglo Coal (Drayton Management) has an implemented risk management procedure. This will be utilised when dealing with Aboriginal heritage incident and reporting. This procedure is described below and further explained in Flowchart form (see Appendix 5).	These procedures have not been triggered during the audit period.	Not Triggered
4.8	This shall ensure no items of Aboriginal cultural heritage are disturbed or destroyed and that ongoing protection of Aboriginal cultural heritage within the Drayton Mine Lease through regular auditing and assessment of Drayton's risk management procedure and ACHMP can be undertaken.	The site's Permit to Disturb Land Form does contain a requirement to consider the possible presence of Aboriginal heritage.	Compliant

4.8.1 NPW Act Notification & Incident Reporting Process			
4.8.1	The NSW National Parks and Wildlife Act 1974 (amended) requires that in the event that unanticipated Aboriginal cultural deposits are encountered, work must cease immediately in the vicinity of the find. It is recommended that consultation with the relevant DECC Officer occur by telephone within 24-72 hours of the discovery or incident.	No unanticipated Aboriginal cultural deposits were discovered during the audit period.	Not Triggered
4.8.1	When an unanticipated Aboriginal site disturbance occurs, the following internal notification procedure and incident reporting should be undertaken; · All work must stop and the onsite Mining Manager and Safety & Sustainable Development Manager be notified immediately; · Where the area or site can be assessed to contain existing or unknown Aboriginal objects etc. this area must be fenced or barricaded off and no further work is to take place in that area; · A qualified archaeologist will need to make an assessment of the discovery and relevant Aboriginal stakeholders, where possible, must be invited to inspect the find; · An incident report providing DECC with the results of this assessment will need to be provided within 5 business days; · Under Section 91 of the NPW Act 1974, this reporting must include a completed AHIMS Aboriginal Site Card if a new Aboriginal site or Object is identified; · In the event that bones which may be human are located during any subsequent works on the site, the NSW Police and/or the State Coroners Office must be contacted. They will determine whether the remains are associated with heritage (Aboriginal or historic) or a crime. The NSW Police and/or the State Coroners Office will then recommend an appropriate course of action that requires further involvement by an archaeologist and Aboriginal stakeholder groups; and · Stop work provisions should be in place for all works, regardless of what stage they are at in the development and consent process.	No unanticipated Aboriginal cultural deposits were discovered during the audit period.	Not Triggered
4.8.2 On Site Auditing & Monitoring			
4.8.2	To reduce the risk of accidental disturbances to Aboriginal objects and sites, the Safety & Sustainable Development Manager should regularly conduct internal audits to ensure management and employees are aware of the need to identify and protect Aboriginal objects and artefacts.	A general observation is made by the audit team that the environmental staff employed at the site were not aware of the current status of Aboriginal cultural heritage items at the site, both in terms of those that remain in situ and those which have been previously subject to salvage. It is therefore assumed that this requirement has not been complied with. It is also noted that the overall site induction information does not contain information about cultural heritage (Aboriginal or otherwise).	Administrative non-compliance
4.8.2	These audits should include: · Continuous appraisal of site activity to ensure prevention and/or control of disturbance to sites and objects of Aboriginal significance; · Assessment of compliance with this Aboriginal heritage risk management procedures and documents (i.e.. ACHMP); · Assessment of management and employee awareness of the need to identify and preserve Aboriginal objects and artefacts; and · Assessment of employee and contractor awareness and ability to identify Aboriginal heritage issues within their operational area of responsibility.	A general observation is made by the audit team that the environmental staff employed at the site were not aware of the current status of Aboriginal cultural heritage items at the site, both in terms of those that remain in situ and those which have been previously subject to salvage. It is therefore assumed that this requirement has not been complied with. It is also noted that the overall site induction information does not contain information about cultural heritage (Aboriginal or otherwise).	Administrative non-compliance
4.9 General Standard Work Practices for Risk Control			
4.9	Anglo Coal's on-going risk management approach for its Aboriginal heritage cultural resources should involve the following management performance objectives. · Aboriginal sites and objects must be keep intact and preserved until they are ready to be salvaged, (e.g.. collected, excavated etc.); · Aboriginal sites and objects must be actively managed to avoid accidental impacts; · Staff (including contractors) must be trained and made aware of their responsibilities concerning sites and operational activities; · Work practices should spell out clearly the roles and responsibilities of all staff in managing Aboriginal cultural heritage resources on the mine site; · Aboriginal sites and objects must be clearly identified in the field. Areas need to be fenced and appropriate signage used; · Supervisors and plant operators should be aware of the location of Aboriginal sites and the boundaries; and · All plans and operation notes must clearly show the location of known sites.	The site's Permit to Disturb Land Form does contain a requirement to consider the possible presence of Aboriginal heritage. However, a general observation is made by the audit team that the environmental staff employed at the site were not aware of the current status of Aboriginal cultural heritage items at the site, both in terms of those that remain in situ and those which have been previously subject to salvage. It is therefore assumed that this requirement has not been complied with. It is also noted that the overall site induction information does not contain information about cultural heritage (Aboriginal or otherwise).	Administrative non-compliance
4.9.1 Measuring Success of Risk Control			
4.9.1	The above performance objectives should be measured using regular internal audits and monitoring and details shall be included in the Annual Environmental Management Report section on the cultural management.	A general observation is made by the audit team that the environmental staff employed at the site were not aware of the current status of Aboriginal cultural heritage items at the site, both in terms of those that remain in situ and those which have been previously subject to salvage. It is therefore assumed that this requirement has not been complied with.	Administrative non-compliance

4.9.2 Emergency Response Procedure			
4.9.2	If a site is accidentally damaged, work should stop immediately and the incident be reported to the Environmental Co-ordinator. It is the responsibility of Anglo Coal to report the incident to the DECC; and relevant Aboriginal community groups should also be contacted as part of community consultation (see Appendix 9).	No unanticipated Aboriginal cultural deposits were discovered during the audit period.	Not Triggered
4.10 Training			
4.10	Anglo Coal will develop a site-orientated induction program for all staff and contractors who will require training in cultural heritage risk management. Training and induction sessions will aim to make staff and contractors aware of their obligations regarding the preservation of items that are of Aboriginal Cultural Heritage significance.	The overall site induction information does not contain information about cultural heritage (Aboriginal or otherwise).	Administrative non-compliance
4.10	Training packages will be developed that clearly locate sites of significance, provide contact details of people to contact if a problem occurs at one these sites, a description of common artefacts, and provide a detailed description of relevant acts and legal responsibilities.	The overall site induction information does not contain information about cultural heritage (Aboriginal or otherwise).	Administrative non-compliance
4.10	Records of the employees and contractors that have been trained in archaeology and cultural heritage management will be maintained in the Anglo Coal induction database.	The overall site induction information does not contain information about cultural heritage (Aboriginal or otherwise).	Administrative non-compliance

Appendix 4 Proposed Salvage and Test Excavation Strategy for Drayton Mine Extension Project Sites D1-D22 & R1-R4			
Appendix 4	The salvage and test excavation strategy detailed below was developed in consultation with representatives of each group as represented during field inspections. This consultation was undertaken in early August 2008 to organise salvage and collection works scheduled for October 2008.	This was noted, however the audit did not require a finding to be made against this requirement.	Not Triggered

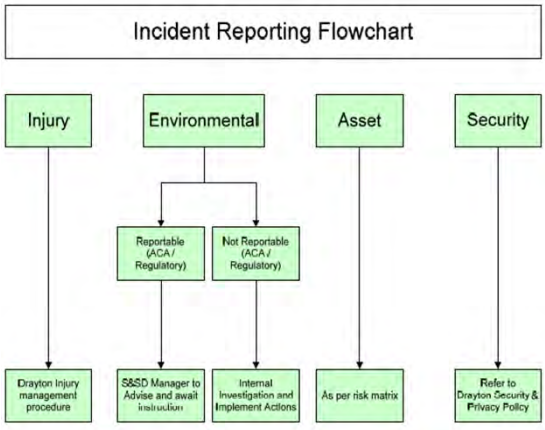
Site Number	Field Code	Salvage/Investigation Method	Feedback & Recovery method	Aboriginal Stakeholder response
37-2-2325	D1	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard archaeological practice	Aboriginal stakeholders support the method proposed
37-2-2320	D2	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard archaeological practice	Aboriginal stakeholders support the method proposed
37-2-2321	D3	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard archaeological practice	Aboriginal stakeholders support the method proposed
37-2-2322	D4	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard archaeological practice	Aboriginal stakeholders support the method proposed
37-2-2326	D5	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard archaeological practice	Aboriginal stakeholders support the method proposed
37-2-2327	D6	2 x Grader scrapes to detect presence/absence of sites or objects on heavily grassed areas. Scrapes will be 50m in length. Grader Scrape	Exploratory process. If artefacts found revised to use more refined methods (i.e. shovel or hand excavations.	Aboriginal stakeholders support the method proposed
37-2-2328	D7	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard archaeological practice	Aboriginal stakeholders support the method proposed
37-2-2348	D8	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard archaeological practice	Aboriginal stakeholders support the method proposed
37-2-2349	D9	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard archaeological practice	Aboriginal stakeholders support the method proposed
37-2-2350	D10	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard archaeological practice	Aboriginal stakeholders support the method proposed

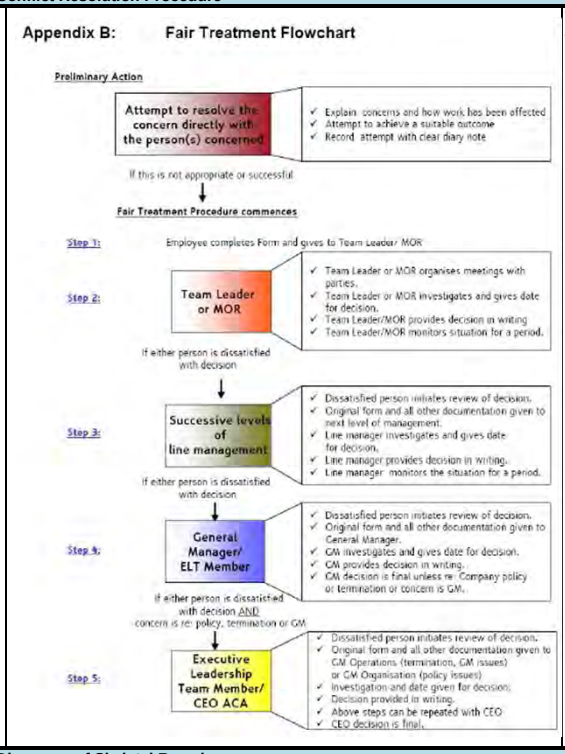
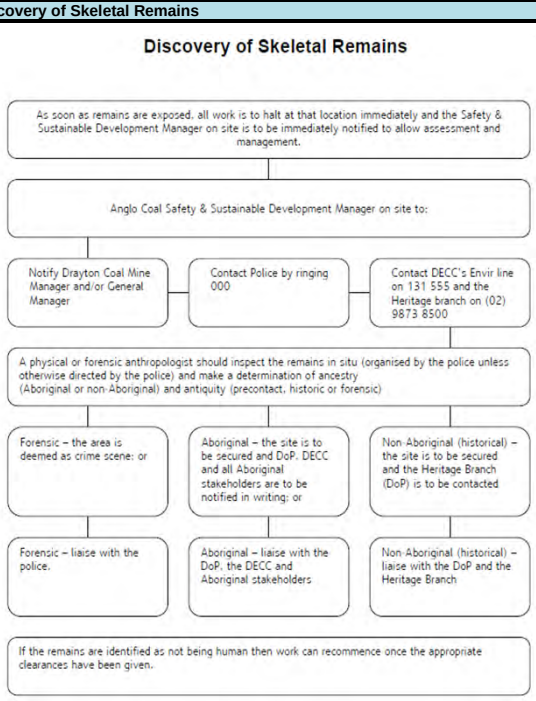
Site Number	Field Code	Salvage/Investigation Method	Feedback & Recovery method	Aboriginal Stakeholder response
37-2-2351	D11	Shovel testing proposed (1m x.5m x30cm) at 5m intervals along a 50m base-line) to be repeated using a checker board pattern depending on recovery results. Grid is placed parallel to creek margin near exposed artefacts. Grader scrapes to detect presence/absence of sites or objects on heavily grassed areas. Scrapes will be 50m in length	Exploratory process. If artefacts or features found in high densities revised to use more refined methods (ie. hand excavations.	Aboriginal stakeholders support the method proposed
37-2-2352	D12	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard archaeological practice	Aboriginal stakeholders support the method proposed
37-2-2353	D13	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard archaeological practice	Aboriginal stakeholders support the method proposed
37-2-2354	D14	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard archaeological practice	Aboriginal stakeholders support the method proposed
37-2-2355	D15	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard archaeological practice	Aboriginal stakeholders support the method proposed
37-2-2356	D16	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard archaeological practice	Aboriginal stakeholders support the method proposed
37-2-2357	D17	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard archaeological practice	Aboriginal stakeholders support the method proposed
37-2-2358	D18	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard archaeological practice	Aboriginal stakeholders support the method proposed
37-2-2359	D19	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard	Aboriginal stakeholders support the

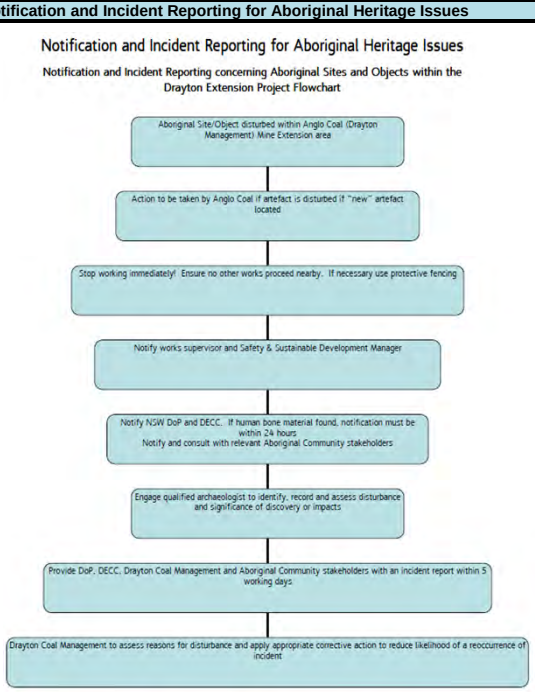
			archaeological practice	method proposed
37-2-2360	D20	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard archaeological practice	Aboriginal stakeholders support the method proposed
37-2-2361	D21	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard archaeological practice	Aboriginal stakeholders support the method proposed

Site Number	Field Code	Salvage/Investigation Method	Feedback & Recovery method	Aboriginal Stakeholder response
37-2-2362	D22	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard archaeological practice	Aboriginal stakeholders support the method proposed
37-2-2338	R1	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard archaeological practice	Aboriginal stakeholders support the method proposed
37-2-2339	R2	Gridded surface collection using 20m grid pattern. Mapped according to scale.	Collect and bag according to standard archaeological practice	Aboriginal stakeholders support the method proposed
37-2-2340	R3	Shovel testing proposed (1m x.5m x30cm) at 5m intervals along a 50m base-line) to be repeated using a checker board pattern depending on recovery results. Grid is placed parallel to creek margin near exposed artefacts. Grader scrapes to detect presence/absence of sites or objects on heavily grassed areas. Scrapes will be 50m in length	Exploratory process. If artefacts or features found in high densities revised to use more refined methods (ie. hand excavations.	Aboriginal stakeholders support the method proposed
37-2-2341	R4	Shovel testing proposed (1m x.5m x30cm) at 5m intervals along a 50m base-line) to be repeated using a checker board pattern depending on recovery results. Grid is placed parallel to creek margin near exposed artefacts. Grader scrapes to detect presence/absence of sites or objects on heavily grassed areas. Scrapes will be 50m in length	Exploratory process. If artefacts or features found in high densities revised to use more refined methods (ie. hand excavations.	Aboriginal stakeholders support the method proposed

Appendix 5 Flowchart for Notification and Incident Reporting Drayton Mine Extension Project Aboriginal Heritage issues

Appendix 5	**Flowchart for Notification and Incident Reporting** **Drayton Mine Extension Project** **Aboriginal Heritage Issues** 	This was noted, however the audit did not require a finding to be made against these requirements.	Not Triggered

Appendix 7 Conflict Resolution Procedure			
Appendix 7		This was noted, however the audit did not require a finding to be made against these requirements.	Not Triggered
Appendix 8 Discovery of Skeletal Remains			
Appendix 8		Skeletal remains were not discovered during the audit period.	Not Triggered

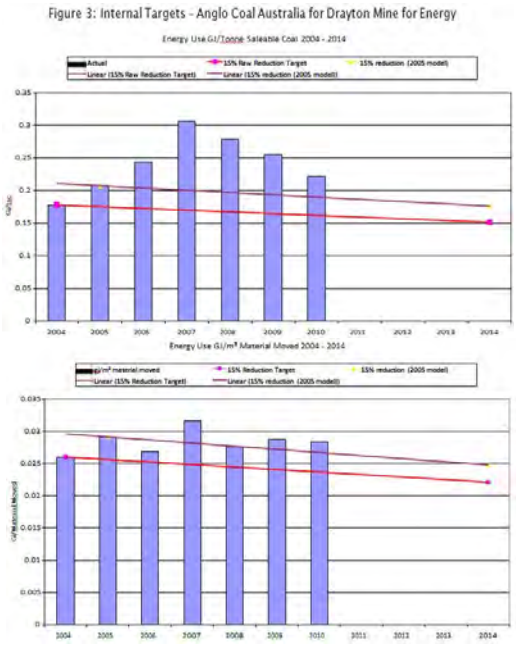
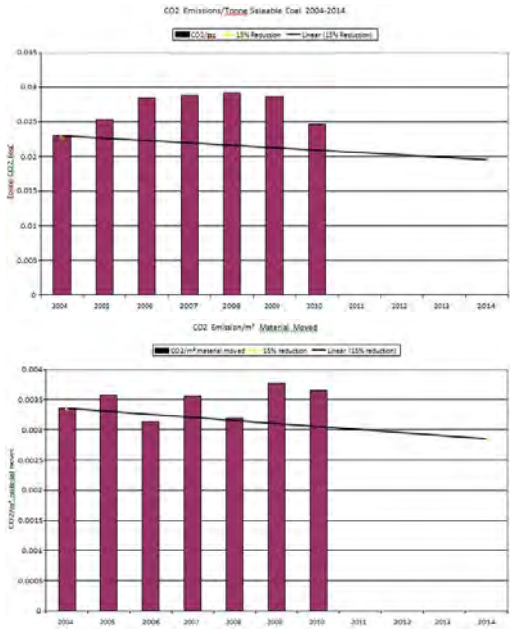
Appendix 9 Notification and Incident Reporting for Aboriginal Heritage Issues			
		No unanticipated Aboriginal cultural deposits were discovered during the audit period.	Not Triggered

Appendix R

Audit Protocol: *Greenhouse and Energy Efficiency Plan* (AngloCoal, May 2008)

Appendix R Audit Protocol: *Greenhouse and Energy Efficiency Plan* (AngloCoal, May 2008)

Reference	Requirement	Evidence	Audit Finding
Greenhouse and Energy Efficiency Plan - Anglo Coal (Drayton Management) May 2008			
5.1 Responsibilities			
5.1	**S&SD Manager** • Considering energy efficiency and greenhouse emissions during the procurement of new equipment • Considering energy efficiency and greenhouse gas emissions during business planning processes at management level • Seeking opportunities to improve energy efficiency and minimise greenhouse gas emissions • Considering energy efficiency in all business improvement projects • Recommending energy improvement projects for approval and over viewing project performance.	Nothing was provided to the auditors suggesting that the SHE Manager is actively involved in this process of reducing onsite greenhouse gas emissions.	Administrative non-compliance
5.1	**Environment Coordinator** • Monitoring, collecting and analysing data and making recommendations regarding energy consumption and efficiency performance • Monitoring, collecting and analysing data and making recommendations regarding greenhouse gas emissions performance • Reporting on energy and greenhouse performance as required	No evidence was provided to the auditors suggesting that the site makes recommendations regarding GHG performance. The 2012 AEMR contained no information about GHG usage. Section 3.1.4 of the 2013 and 2014 AEMRs provided information about overall GHG usage, but did not analyse what this meant in terms of GHG performance. The Energy Optimisation Assessment, Drayton Mine (AngloAmerican, 2014) was undertaken 2014, however this did not link the Site's performance with its Greenhouse and Energy Efficiency Plan (AngloCoal, May 2008). A certificate appointing the Environmental Coordinator as Site Energy Champion was provided to the auditors.	Compliant
5.2 Audit/Review Schedule			
5.2	This management plan is to be reviewed at least every three years or as otherwise directed by the Director-General of the NSW Department of Planning. The review process is to reflect independent environmental audit findings, changes in environmental legislation, standards and guidelines, and changes in technology or operational procedures.	Given the date of the current *Greenhouse and Energy Efficiency Plan* (AngloCoal, May 2008), it can be concluded that this commitment was not complied with during the audit period. The Energy Optimisation Assessment, Drayton Mine (AngloAmerican, 2014) was undertaken 2014, however this did not link the Site's performance with its Greenhouse and Energy Efficiency Plan (AngloCoal, May 2008), nor did it constitute a review of the Greenhouse and Energy Efficiency Plan (AngloCoal, May 2008).	Administrative non-compliance
5.2	In accordance with Project Approval (06_ 0202), at the end of year two of the development, and every three years from there on, Drayton will commission an independent environmental audit to the satisfaction of Director-General of the NSW Department of Planning. The audit will include an assessment of the adequacy of all management plans. Following the audit, this management plan may be updated if appropriate.	The previous IEA made recommendations against the *Greenhouse and Energy Efficiency Plan* (AngloCoal, May 2008). However there is no evidence that these recommendations were considered for implementation by the site. The Energy Optimisation Assessment, Drayton Mine (AngloAmerican, 2014) was undertaken 2014, however this did not link the Site's performance with its Greenhouse and Energy Efficiency Plan (AngloCoal, May 2008), nor did it constitute a review of the Greenhouse and Energy Efficiency Plan (AngloCoal, May 2008).	Administrative non-compliance
5.3 Records Management			
5.3	All monitoring records for energy and greenhouse gas emissions performance must be kept on file in the S&SD department for the duration of the life of mine plus any additional period required by statute or regulation.	These records were able to be provided to the auditors during the site visit.	Compliant
5.5 References and Relationship With Other Environmental Documentation			
5.5	Environmental monitoring at Drayton is conducted in accordance with the following approvals/Acts or regulatory conditions: • Environmental Planning and Assessment Act, 1979 (EP&A Act) administered by the Department of Planning (DoP) and associated project approval conditions (Ref MP 06_0202). • Anglo Coal Drayton Mine Environmental Assessment 2007. • Guidelines for Energy Savings Action Plans (DEUS 2005). • National Greenhouse and Energy Reporting Act 2007. • National Greenhouse and Energy Reporting Regulations 2008. • National Greenhouse and Energy Determination 2008. • Energy Efficiency Opportunities Act 2006. • Department of Energy and Utilities and Sustainability.	Section 3.1.4 of the 2013 and 2014 AEMRs suggest that GHG usage at the site is calculated on this basis.	Compliant
5.6 Documents			
5.6	Drayton is committed to operating in alignment with the expectations of Anglo Coal Global and Anglo American plc following Anglo COAL'S Energy Vision.	This was noted, however the audit did not require a finding to be made against this commitment.	Not Triggered
5.6.2	Greenhouse gases are monitored at Drayton with Greenhouse gas emissions are calculated based on the Department of Climate Change National Greenhouse Accounts (NGA) measurement framework, including conversion factors for each energy and greenhouse gas emissions source.	Section 3.1.4 of the 2013 and 2014 AEMRs suggest that GHG usage at the site is calculated on this basis.	Compliant
5.6.2	Greenhouse gas emissions are currently reviewed on a monthly basis, with emissions targets for tonnes CO2 equivalents being reviewed during the annual internal business planning process. Monitoring then occurs on a monthly basis, with results compared to the predicted targets for both month and year to date status.	GHG and energy usage is provided to Anglo's corporate office in Brisbane, which then prepares a monthly report on GHG and energy usage, including reduction targets.	Compliant
5.6.3	Energy monitoring has been utilised at Drayton for many years, resulting in an extensive baseline history of energy consumption and efficiency across the various components of the mining operation.	Energy usage at the site continues to be monitored in this way.	Compliant
5.6.3	Energy use (primarily electricity and diesel consumption) is currently reviewed on a monthly basis, with targets for energy consumption being reviewed during the annual internal business planning process. Monitoring then occurs on a monthly basis, with results compared to the predicted targets for both month and year to date status.	Energy usage at the site continues to be monitored in this way.	Compliant

5.6.4	Drayton have an established process for monitoring energy efficiency and greenhouse gas emissions at site level whereas Anglo Coal has adopted a process from corporate level.	This was noted, however the audit did not require a finding to be made against this commitment.	Not Triggered
5.6.4	Anglo Coal Australia (ACA) has appointed a Principal Advisor – Energy Management to assist each site to seek and implement energy efficiency opportunities. Each site (including Drayton) then appoints an Energy Manager, who is also a member of the site Senior Leadership Team, to enhance and champion energy efficiency improvement across each of the operations.	A certificate appointing the Environmental Coordinator as Site Energy Champion was provided to the auditors.	Compliant
5.6.4	Anglo Coal Australia has implemented reduction targets in energy efficiency (GJ/tonne Saleable Coal) for all ACA operations to be achieved by 2014. Similarly, a reduction target has also been established for greenhouse gas emissions (tonnes CO2eq / tonnes saleable coal) to be achieved by 2014.	This was noted, however the audit did not require a finding to be made against this commitment.	Not Triggered
5.6.4	At a site level, greenhouse and energy use is monitored and tracked. Reduction targets are shown below. These figures are based on annual business planning information with three year predictive forecasts being calculated. These targets then become internal targets with Anglo Coal Australia monitoring performance on a corporate level, upon which Drayton is measured. Figure 3: Internal Targets - Anglo Coal Australia for Drayton Mine for Energy 	GHG and energy usage is provided to Anglo's corporate office in Brisbane, which then prepares a monthly report on GHG and energy usage, including reduction targets.	Compliant
5.6.4	There are two reduction target projection lines on the above graphs. During 2005, additional plant was installed which offset the initial target and as such a step change was instigated. This then altered the longer term reduction target. This was an internal process within Anglo Coal. 	This was noted, however the audit did not require a finding to be made against this commitment.	Not Triggered
5.6.4			

<table>
<tr><td>5.6.4</td><td>To assist in achieving these targets, site energy maps have been developed to monitor monthly performances against the target. Site greenhouse gas emission maps are currently being developed.</td><td>There is no evidence that such maps are used.</td><td>Administrative non-compliance</td></tr>
<tr><td>5.6.4</td><td>An annual performance dashboard is also used for monthly reporting on energy and greenhouse gas emissions reporting.</td><td>GHG and energy usage is provided to Anglo's corporate office in Brisbane, which then prepares a monthly report on GHG and energy usage, including reduction targets.</td><td>Compliant</td></tr>
<tr><td>5.6.4</td><td>Sources of energy material to Drayton's Energy Map are the one energy source that is brought onto the site (electricity) and energy that is consumed (diesel). Sources of greenhouse gas emissions material to Drayton's greenhouse performance include electricity, diesel, explosives and spontaneous combustion.</td><td>This was noted, however the audit did not require a finding to be made against this commitment.</td><td>Not Triggered</td></tr>
<tr><td>5.6.4</td><td>To supplement the energy and greenhouse mapping process, energy management reviews will be undertaken on a 5-year cycle in accordance with the provisions of the Energy Efficiency Opportunities Act 2006 and shall include the following aspects: review of energy saving potentials; energy targets and key performance indicators; metering and monitoring; reporting; supply management; operating and maintenance procedures; accountabilities; training and awareness and compliance with regulatory requirements. A technical review may also be undertaken in accordance with the provisions of ACA's OMS.</td><td>There is no evidence that such reviews have been undertaken since this Plan came into effect in 2008.</td><td>Administrative non-compliance</td></tr>
<tr><td>5.6.6</td><td>Management actions were identified through an EEO gap analysis which identified areas of continuous improvement benefits could be gained. These actions have been summarised and key areas of improvements identified as detailed in the below table.
<table>
<tr><th>Area</th><th>Opportunity</th><th>Responsible Person</th><th>Completion Period</th></tr>
<tr><td>Improved efficiency on prime removal</td><td>Achieve 10% improvement in energy by accelerating prime removal thus utilising less energy in longer term</td><td>Business Improvement Facilitator</td><td>Completed (Plus 10 project)</td></tr>
<tr><td>Improved productivity savings</td><td>Improved performance of excavators, GPS on drills and utilise throw blasting to reduce reliance on short</td><td>Technical Services Manager</td><td>Ongoing</td></tr>
<tr><td>Improving CHP throughput</td><td>Identify improvement opportunities within the CHP and washery facilities to reduce energy usage</td><td>Coal Handling and Processing Superintendent</td><td>Q409</td></tr>
<tr><td>Reducing idle time on field equipment</td><td>Will reduce diesel consumption, improve longevity of engines and impacts on greenhouse emissions through fuel consumption savings</td><td>Mine Manager</td><td>Ongoing</td></tr>
<tr><td>Procurement of new equipment</td><td>Identify technology available in new trucks to improve fuel consumption. Potentially include energy management on procurement of new equipment</td><td>Maintenance and Engineering Manager / Supply Superintendent</td><td>Ongoing</td></tr>
<tr><td>Mine design</td><td>Identify mine planning constraints and develop plans to reduce energy requirements for hauling material and coal</td><td>Technical Services Manager</td><td>Ongoing</td></tr>
<tr><td>Conveyors</td><td>Identify opportunities to reduce running time on unladen conveyors</td><td>Coal Handling and Processing Superintendent</td><td>Q409</td></tr>
<tr><td>ROM Coal</td><td>Identify opportunities to reduce rehandling of ROM coal or identify opportunities to increase ROM handling but reduce reliance on multiple equipment during process eg redesign of ROM stockpile configuration</td><td>Mine Manager / Technical Services Manager</td><td>Q209</td></tr>
<tr><td>Air Conditioning / office lighting</td><td>Identify opportunities to reduce air conditioning and office lighting requirements in offices after hours and weekends</td><td>Maintenance and Engineering Manager</td><td>Q109</td></tr>
<tr><td>Water Management</td><td>Quantify benefits of replacing diesel powered water pumps with electric pumping stations</td><td>Maintenance and Engineering Manager</td><td>Ongoing</td></tr>
<tr><td>Awareness training</td><td>Include energy awareness training in inductions and develop energy training awareness for workforce</td><td>Safety & Sustainable Development Manager</td><td>Q409</td></tr>
<tr><td>Transportation</td><td>Investigate options of providing buses to transport workers to work each shift rather than rely on own vehicles</td><td>Commercial Manager</td><td>Q409</td></tr>
<tr><td>Leica Management system</td><td>Introduction of Leica system will enable more detailed analysis of production data and equipment data. Information can then be utilised to assess mining performance</td><td>Technical Services Manager / Mine Manager</td><td>Ongoing</td></tr>
<tr><td>Gas Desorption</td><td>Quantify greenhouse gas emissions from coal seams pre mining though testing of cores in exploration phase for in situ CO2 and CH4 content.</td><td>Technical Services Manager</td><td>Q309</td></tr>
</table></td><td>Interviews with site personnel confirmed that the site has only recently identified its baseline GHG usage, and no specific GHG reduction measures were implemented and reported during the audit period.</td><td>Administrative non-compliance</td></tr>
<tr><td>5.6.6</td><td>Drayton shall investigate and evaluate opportunities for improving greenhouse and energy performance.</td><td>Interviews with site personnel confirmed that the site has only recently identified its baseline GHG usage, and no specific GHG reduction measures were implemented and reported during the audit period.</td><td>Administrative non-compliance</td></tr>
<tr><td>5.6.6</td><td>These measures could include:
Consideration of specific energy or greenhouse emission targets during the procurement of new equipment.
Seeking innovations in technology when procuring new equipment.
Including continuous improvement requirements in supply contracts with regard to energy efficiency.
Increasing involvement in research into emissions and efficiency improvements.
Increasing involvement at industry level to monitor new developments and initiatives regarding greenhouse and energy issues.
Improved productivity and better asset utilisation.</td><td>This was noted, however the audit did not require a finding to be made against this commitment.</td><td>Not Triggered</td></tr>
<tr><td>5.6.6</td><td>Greenhouse and energy reductions will be coordinated from Drayton in consultation with the ACA corporate office. Details of improvement measures implemented or trialled at a site level will be included in the annual AEMR reporting process and on the ACA website in accordance with the provisions of the Energy Efficiency Opportunities Act 2006.</td><td>The 2012 AEMR contained no information about GHG usage. Section 3.1.4 of the 2013 and 2014 AEMRs provided information about overall GHG usage, but did not outline any relevant measures.</td><td>Administrative non-compliance</td></tr>
</table>

Appendix S

Audit Protocol: Flora and Fauna Management Plan (AngloAmerican, July 2013)

Appendix S Audit Protocol: Flora and Fauna Management Plan (AngloAmerican, July 2013)

Reference	Requirement	Evidence	Audit Finding
Flora and Fauna Management Plan (AngloAmerican, July 2013)			
Procedural Requirement			
Responsibilities			
4.1	**Environmental Coordinator** The Environmental Coordinator shall coordinate the management of flora and fauna on site; provide assessments of impacts to flora and fauna via Permits to Disturb Land; and report management issues annually in the AEMR.	The site visit and interviews with Anglo Coal staff conducted by the auditors confirmed that these responsibilities are generally being carried out.	Compliant
4.1	**SHE Manager** The SHE Manager shall be responsible for the management of flora and fauna issues that may arise through the course of mining operations and shall authorise Permits to Disturb Land based on assessments provided by the Environmental Coordinator.	Auditors cited copy of Permit to Disturb Land referencing signature of SHE Manager.	Compliant
4.1	**Surveyor** The statutory mine Surveyor shall oversee the compilation of Mining Operations Plan (MOP), ensuring that the MOP meets regulatory expectations. The Surveyor will also provide assurance that completed rehabilitation and Permits to Disturb Land meet MOP criteria.	This was noted. However, as these are general requirements non-specific to the *Flora and Fauna Management Plan (July 2013)* , it was not considered necessary to make a finding against them.	Not Triggered
4.1	**Mining Manager** The Mining Manager shall be responsible for authorisation of Permits to Disturb Land based on assessments provided by the Surveyor and Environmental Coordinator and shall ensure clearing is restricted to approved areas.	Auditors cited copy of Permit to Disturb Land referencing signature of Mining Manager.	Compliant
4.1	**Superintendent/Supervisor** The Superintendent or Supervisor of the clearing activity shall be responsible for gaining authorisation of Permits to Disturb Land, demarcating and mapping areas to be disturbed and ensuring clearing is restricted to approved areas.	Auditors cited copy of Permit to Disturb Land evidencing that these requirements are being carried out.	Compliant
Audit/Review Schedule			
4.2	This procedure shall be subject to review every three years. The SHE Manager shall be responsible for such reviews.	Given that the previous version of the *Flora and Fauna Management Plan* (AngloAmerican, July 2013) is dated 2009, it can be concluded that this requirement has not been met.	Administrative non-compliance
Records Management			
4.3	Records of correspondence, weed and feral animal control and vegetation clearance shall be maintained and stored by the Environmental Coordinator.	These records were cited by the auditors during the site visit.	Compliant
Vegetation Clearing			
4.8	Vegetation clearing is to be minimised and cleared areas are to be re-vegetated, with vegetation consistent with the Drayton Rehabilitation and Offset Management Plan, as soon as possible after the disturbance. This is generally vegetation similar to that which has been cleared and is coherent with the final land use and biodiversity values stated in the Drayton Rehabilitation and Offset Management Plan.	These requirements were confirmed during a review of the site's GIS system and a site visit conducted by the auditors.	Compliant
4.8	Prior to any disturbance, those persons seeking to disturb an area must obtain an approved Permit to Disturb Land. A Permit to Disturb Land (Appendix 1) is an internal document designed to ensure that those persons disturbing an area are aware of the hazards associated with the clearing and have considered the impacts of the disturbance. The Permit to Disturb Land must be signed by the originator of the request; the statutory Surveyor; the SHE Manager (or delegated); the Mining Manager; the Superintendent or Supervisor managing the work; and the Operators performing the clearing before work can commence.	Copies of the sites' Permit to Disturb form were provided to the auditors, evidencing that these requirements are being complied with.	Compliant
4.8	Areas to be cleared and assessed by the Surveyor to ensure compliance with the Mining Operations Plan (MOP). The disturbance limit is to be clearly demarcated and mapped to ensure that clearing occurs within the approved boundary of disturbance.	Copies of the sites' Permit to Disturb form were provided to the auditors, evidencing that these requirements are being complied with.	Compliant
4.8	Areas to be cleared are assessed by the Environmental Coordinator to determine the potential impact on flora and fauna; rehabilitation requirements; topsoil management requirements; Aboriginal heritage or other items of heritage significance; potential disturbance to catchment/drainage or erosion and sediment control structures and any mitigation measures required.	Copies of the sites' Permit to Disturb form were provided to the auditors, evidencing that these requirements are being complied with.	Compliant
4.8	Prior to the clearing of woodland vegetation (trees and shrubs) an assessment of habitat value is to be conducted and habitat structures (e.g. hollow logs, large trees) are to be retained or conserved for use on rehabilitation areas. Native trees and shrubs should also be assessed for potential seed sources and any available seed harvested for distribution on completed rehabilitation areas where possible.	Copies of the sites' Permit to Disturb form were provided to the auditors, evidencing that these requirements are being complied with.	Compliant
4.8	Mine disturbances will be documented during the annual business planning process according to the commitments made in the MOP.	Section 2.2 of the 2012, 2013 and 2014 AEMRs fulfil this requirement.	Compliant
Topsoil Stripping			
4.9	Topsoil stripping may occur in areas covered by an approved Permit to Disturb Land (see previous section). The Mining Operations Plan (MOP) outlines the schedule for mining to occur. This schedule also details areas and timelines for topsoil stripping.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.9	Topsoil handling and stockpiling requirements include: - Where possible, place topsoil directly on rehabilitation areas during stripping - Minimise the time topsoil is stockpiled to preserve viability of native seed contained - Minimise compaction - Clearly demarcate and map topsoil stockpiles - Stockpile height should not exceed three metres - Minimise weeds by seeding stockpiles with cover crop and pasture species as soon as stockpiling is complete - Treat weeds on stockpiles as required - Ensure topsoil stockpiles are not contaminated with other materials (including inert materials/clays which must be stockpiled separately	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant

Drayton Wildlife Refuge			
4.12	Since the original gazettal of the Drayton Wildlife Refuge in 1987, Drayton has come to refer to a 114 hectare area north of Thomas Mitchell Drive as the "Drayton Wildlife Refuge." This area contains a large stand of Hunter Lowland Redgum Forest (HLRF) EEC community. The area is described and mapped in the Drayton Rehabilitation and Offset Management Plan and is managed in a similar manner to Drayton's Northern Offset. The area is fully fenced to prevent unauthorised access.	The site visit conducted by the auditors confirmed that this area is fenced, including with signage delineating it as an Environmental Offset Area. This signage (dated September 2015) also indicated recent rabbit and wild dog control methods had been undertaken in the area.	Compliant
Weed Control			
4.13	Weed control measures are undertaken and reported on an annual basis. Drayton's annual weed management activities are documented in the Annual Environmental Management Report (AEMR). An annual weed survey is conducted and documented by the SHE Department in order to track changes in weed distribution.	This has been undertaken during the audit period, as outlined in Section 3.8 of the 2012 and 2013 AEMRs, and Section 3.9 of the AEMR 2014.	Compliant
4.13	Weeds are prioritised for control. Noxious weeds are treated with highest priority. A full list of weeds recorded at Drayton is available in the Drayton Rehabilitation and Offset Management Plan. The noxious weeds on the list include: - Hypericum perforatum - St John's Wort - Lycium ferosissimum - African Boxthorn - Opunta stricta - Prickly Pear	This has been undertaken during the audit period, as outlined in Section 3.8 of the 2012 and 2013 AEMRs, and Section 3.9 of the AEMR 2014.	Compliant
4.13	High priority is also given to weeds in rehabilitation and offset areas as well as the Drayton Wildlife Refuge. Effective control of weeds in these areas is essential to conserving and enhancing biodiversity values as detailed in the Drayton Rehabilitation and Offset Management Plan.	This has been undertaken during the audit period, as outlined in Section 3.8 of the 2012 and 2013 AEMRs, and Section 3.9 of the AEMR 2014.	Compliant
Feral Animal Control			
4.14	Introduced (feral) animals are relatively common throughout the site. Species include rabbits; hares; wild dogs and foxes. Targeted baiting programs are undertaken to control these animals as required. When baiting programs are proposed, communication is carried out with local landholders to ensure domestic animals are not affected and to enable additional baiting programs to be developed concurrent with Drayton's. Drayton is a member of the Upper Hunter Combined Wild Dog Association and supports a coordinated regional approach to feral animal control. All relevant codes of practice are complied with during baiting programs. Training and baits are obtained via the relevant authority and records are kept in compliance with the Pesticides Act 1999.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
Fencing			
4.15	The condition of all external boundary fencing will be assessed annually and a condition report produced. Results of the condition report will be used to determine maintenance and repair priorities. Existing boundary fences of offset and wildlife refuge areas will be given priority over other areas unless direct safety risks are present. Boundary fences will be maintained in good order to prevent stock intrusion from neighbouring properties. Requirements for repair of internal fencing will be assessed by the Environmental Coordinator on a case by case basis.	The audit team viewed evidence of security staff inspecting access ways. It is recommended that the site implement an inspection regime for boundary fences.	Compliant - Recommendation Made
Erosion and Sediment Control			
4.16	Erosion and sediment controls structures installed after January 2011 shall conform to the requirements of the Anglo American Metallurgical Coal Erosion and Sediment Control Standard (ESC Standard). The ESC Standard applies to all operational and infrastructure areas of the mine. The ESC Standard does not apply to rehabilitation or offset areas.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.16	In general Drayton is managed in such a way as to eliminate contaminated and dirty water entering the receiving environment. This is achieved by containing all mine affected and contaminated water within the mine water management system as detailed in the Drayton Water Management Plan. Drayton does not discharge water offsite however surface water sampling is conducted on a monthly basis for the purpose of monitoring site water quality as detailed in the Drayton Monitoring Management Plan.	The Site continues to be operated in this manner.	Compliant
4.16	Further to this, sediment control structures exist in the CHP and maintenance areas which are regularly maintained to reduce the sediment load being received into the Rail Loop Dam and the Pollution Control Dam. Water is recycled back into the mine water system from these dams; therefore control of water quality is important to ensure overall site water quality is maintained to a standard suitable for industrial uses and to prevent silt build-up in the dams reducing capacity and function.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
4.16	Erosion control is achieved onsite via: - Establishment of temporary vegetation cover on disturbed areas - Controlling runoff from pre-strip areas - Seeding short and long-term topsoil stockpiles - Rehabilitating disturbed areas as they become available.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
Stock and Timber Management			
4.17	In the past, Drayton land has been utilised for grazing. Stock are now excluded from Drayton owned land (except leased properties outside of mining leases) to maintain biodiversity values. If stock were to be reintroduced in the future, a pasture assessment would be completed for areas of rehabilitation to be grazed. Soil characteristics, land capability and carrying capacity would be assessed by a suitably qualified person to determine the number and type of stock as well as suitable grazing practices and required infrastructure.	The auditors could not find any evidence to support such an assessment having been undertaken, despite the fact that cattle are now grazing on land leased from AGL. However, this does not relate to Anglo Coal owned land.	Not Triggered
Native Fauna Care			
4.18	Native fauna are occasionally found injured or ill and in need of urgent care. Drayton has an ongoing relationship with Wildlife Aid, an organisation supplying necessary care for injured or ill wildlife. These animals are assessed by carers and rehabilitation and released where possible.	This has not occurred during the audit period.	Not Triggered

Habitat Corridor Establishment			
4.19	Wildlife corridors have been identified and incorporated into Drayton's final landscape design. Consideration was given to the DPI's Synoptic Plan of Integrated Landscapes in the formulation and the location of tree corridors. The Drayton Offset Strategy aims to establish links between the Saddlers Creek woodland area in the south west of the site and the woodland area to the north and east of the mine. This wildlife corridor, established on Drayton's rehabilitation areas will provide an important habitat linkage in the post-mining landscape consistent with habitat corridors outlined in the Synoptic Plan.	This has not occurred during the audit period.	Not Triggered
Offset Strategy			
4.2	The Environmental Assessment defined a range of mitigation measures for minimising the potential impacts of the Project, specifically the loss of woodland vegetation, including 1.3 hectares of HLRF. These mitigation measures were defined as: - Rehabilitation of mined areas to open forest habitat - Corridors of open forest habitat will be created through areas of rehabilitation. Species selected will be in accordance with those species present in the HLRF EEC. - Compensation for the loss of habitat through the active management of the remaining woodland habitat and the continued maintenance of the 117 hectare Drayton Wildlife Refuge containing HLRF - The existing Drayton Wildlife Refuge will be passively managed to minimise disturbances throughout the area. Grazing and public access will not be permitted. Feral animal control will be undertaken as required.	A review of site documentation as well as the site visit conducted by the auditors confirmed that the site generally seems to be tracking toward these criteria.	Compliant
4.2	An Offset Strategy document is available and details of management measures are provided in the Rehabilitation and Offset Management Plan.	This was noted, however the audit did not require a finding to be made against this condition.	Not Triggered

Appendix T

Audit Protocol: *Environmental Management Strategy* (Anglo Coal, May 2010)

Appendix T Audit Protocol: *Environmental Management Strategy* (Anglo Coal, May 2010)

<table>
<tr><th>Reference</th><th>Requirement</th><th>Evidence</th><th>Audit Finding</th></tr>
<tr><td colspan="4">Environmental Management Strategy (Anglo Coal, 2010)</td></tr>
<tr><td colspan="4">Responsibilities</td></tr>
<tr><td>5.1</td><td>Appendix 2 outlines each position within the organisation and the roles they play in each environmental management plan. Appendix 3 details Drayton's organisational chart. Appendix 3 also contains an in depth assessment of the roles and responsibilities of key personnel with regard to environmental management.</td><td>Environmental Accountability Matrix and Environmental Accountabilities quoted in the appendices to the Environmental Management Strategy do not appear to have been fulfilled consistently by the nominated Anglo Coal personnel. For instance, Anglo Coal staff were not sure about the existence of the Environmental Management Strategy (Anglo Coal, 2010) during the audit, and the auditors noted general inconsistencies with roles and responsibilities compared to what is outlined in the appendices to this document.</td><td>Administrative non-compliance</td></tr>
<tr><td colspan="4">Audit/Review Schedule</td></tr>
<tr><td>5.2</td><td>This management strategy is to be reviewed at least every three years or as otherwise directed by the Director-General of DoP. The review process is to reflect independent environmental audit findings, changes in environmental legislation, standards and guidelines, changes in technology or operational procedures and changes in organisational structures at Drayton.</td><td>Given the date of the current Environmental Management Strategy (Anglo Coal, May 2010), as well as the fact that onsite personnel were not aware whether the site had an Environmental Management Strategy or not, it can be concluded that this commitment was not complied with during the audit period.</td><td>Administrative non-compliance</td></tr>
<tr><td>5.2</td><td>In accordance with Project Approval (06_0202), at the end of year two of the development, and every three years thereafter, Drayton will commission an independent environmental audit to the satisfaction of Director-General of DoP. The audit will include an assessment of the adequacy of all management plans and strategies. Where necessary, following the audit this management strategy may be updated to reflect current practices at Drayton.</td><td>The current audit fulfils these requirements. However the previous audit made several recommendations against the EMS which has not been updated.</td><td>Administrative non-compliance</td></tr>
<tr><td colspan="4">Audit/Review Schedule</td></tr>
<tr><td>5.6.3</td><td>Monitoring of environmental performance is a key aspect of managing the environmental conditions at Drayton. Performance outcomes are set on an annual basis through the Anglo business planning process. This process assesses annual targets and targets for the next three years. These targets are based on mining production and constraints as well as taking into account costs, achieving ISO 14001 and SHECMC requirements and the Department of Industry and Investment Mining Operation Plan commitments.</td><td>Sections 1.3 and 6.1 of the 2012, 2013 and 2014 AEMRs fulfil these requirements.</td><td>Compliant</td></tr>
<tr><td></td><td>Drayton also produces an Environmental Management Report (AEMR) which presents details and assessments of all environmental parameters pertinent to the mine.
<table>
<tr><th>Aspect</th><th>Objective</th><th>Performance measure</th></tr>
<tr><td>Water Management</td><td>➢ To protect surface and groundwater quality and to comply with licence and consent conditions.</td><td>➢ Water quality assessment.
➢ Water Usage.
➢ Ensuring nil discharge.
➢ Reporting of water management in AEMR.</td></tr>
<tr><td>Air Quality</td><td>➢ To minimise air quality impacts on surrounding residents
➢ To comply with all statutory requirements
➢ To respond to community complaints in a quick and efficient manner.</td><td>➢ Manage mining activities to minimise dust emissions.
➢ Monitor air quality in accordance with Australian Standards
➢ Dust monitoring results are included in AEMR
➢ Quick and efficient response to community complaints.</td></tr>
<tr><td>Blasting and Vibration Management</td><td>➢ To manage the operation to ensure statutory requirements for airblast and ground vibration are met.
➢ To respond to community complaints in a quick and efficient manner.</td><td>➢ Quick and efficient response to community complaints.
➢ Reporting of blast and vibration levels in AEMR.
➢ Blasting is managed within Approval and licence conditions.
➢ Monitoring of airblast and vibration levels to ensure compliance with regulatory limits.</td></tr>
<tr><td>Spontaneous Combustion Management</td><td>➢ To manage the operation to ensure spontaneous combustion outbreaks are minimised and managed accordingly.</td><td>➢ Complete reporting of spontaneous combustion as per regulatory requirements.
➢ Monitor spontaneous combustion outbreaks and management effectiveness.</td></tr>
<tr><td>Erosion and Sediment Control</td><td>➢ To minimise erosion and sedimentation from disturbed areas.
➢ Minimise the loss of topsoil.</td><td>➢ No increased erosion or siltation Visible from mining operations in watercourses downstream from the mine.
➢ No active erosion is observable on rehabilitated areas.
➢ To be consistent with Mining Operation Plan commitments.
➢ To be consistent with the requirements of NSW Department of Housing publication (1998) Managing Urban Stormwater – Soils and Construction.</td></tr>
<tr><td>Noise Management</td><td>➢ To manage the operation so as to minimise noise emissions and to ensure statutory requirements are met.
➢ To keep our local community and regulators informed and to respond in a quick and efficient manner to issues and complaints.
➢ To monitor operational and environmental noise to ensure compliance with approval and licence conditions.</td><td>➢ Noise is managed within consent and licence conditions.
➢ Quick and efficient response to community complaints.
➢ Reporting of Noise monitoring results in AEMR.</td></tr>
<tr><td>Flora and Fauna Management</td><td>➢ To minimise the extent of which the operations impact on native flora and fauna
➢ To protect and enhance biodiversity in the area</td><td>➢ Vegetation clearing minimised ahead of mining disturbance
➢ Rehabilitation is conducted in accordance with the MOP
➢ Undertake progressive rehabilitation
➢ Reporting of rehabilitation work in the AEMR</td></tr>
<tr><td>Environmental Monitoring</td><td>➢ To conduct environmental monitoring in accordance with Australian Standards
➢ To environmental monitoring is conducted to ensure compliance with approval and licence conditions</td><td>➢ Report environmental monitoring results in AEMR.</td></tr>
<tr><td>Efficiency</td><td>greenhouse emissions
➢ To strive to improve energy efficiency in all aspects of the operation</td><td>report in AEMR
➢ Monitor energy usage and report in AEMR.</td></tr>
<tr><td>Offset Strategy</td><td>➢ To manage the offset area in accordance with the requirements of the project approval</td><td>➢ Monitor and report details relevant to the management of the offset area in the AEMR.</td></tr>
<tr><td>Aboriginal Heritage Management</td><td>➢ To consult with local Aboriginal Community with regard to the management of onsite Aboriginal Heritage sites.
➢ To salvage or preserve Aboriginal Heritage Sites in accordance with the Environmental Assessment.</td><td>➢ Consultation meetings held with local Aboriginal community to involve appropriate people in the management of onsite sites.
➢ Report the management of sites in the AEMR.</td></tr>
<tr><td>Landscape Management</td><td>➢ To complete landscaping of areas to minimise the visual impacts of the operation on the surrounding community.</td><td>➢ Coordinate tree planting to create a visual tree screen along Thomas Mitchell Drive.
➢ Monitor and report tree screen in AEMR.</td></tr>
<tr><td>Rehabilitation</td><td>➢ To complete rehabilitation in accordance with MOP commitments and DPI requirements</td><td>➢ Complete rehabilitation progressively
➢ Reporting of rehabilitation in AEMR
➢ Participate in annual inspection with DPI.</td></tr>
<tr><td>Final Void Management</td><td>➢ To develop final voids in accordance with consent and approval conditions
➢ To consult with DPI on use of final voids (post mining)</td><td>➢ Monitor final voids and report in AEMR.</td></tr>
<tr><td>Mine Closure</td><td>➢ To prepare a Mine Closure Plan and review periodically to assess progress against plan</td><td>➢ Report on progress to Mine Closure in AEMR.</td></tr>
<tr><td>Environmental Reporting</td><td>➢ Complete all environmental reporting within the required time frame to the requirements</td><td>➢ All environmental reports to be completed by due dates.</td></tr>
</table></td><td>The 2012, 2013 and 2014 AEMRs fulfil this requirement.</td><td>Compliant</td></tr>
</table>

<table>
<tr><td colspan="4">Environmental Management Plans</td></tr>
<tr><td>5.6.4</td><td>As a requirement of Drayton's Project Approval, several management plans are required which outline the methodology and intent upon which environmental issues will be managed at Drayton. A summary of these plans are detailed in Table 4 along with other requirements from relevant government authorities with respect to the management plans.</td><td>This was noted, however the audit did not require a finding to be made against this point.</td><td>Not Triggered</td></tr>
<tr><td>5.6.4</td><td>Each management plan addresses the requirements of the Project Approval including the purpose of each plan, responsibilities, review schedules, records management, the application of the Project Approval requirements, references to other environmental documentation such as licences, approvals and other management plans and where applicable complaints handling procedures and exceedance management protocols.
Table 4: Management Plans Applicable to this Project Approval
<table><tr><th>Management Plan</th><th>DoP Approval Conditions</th><th>DECC Environmental Protection Licence (EPL Licence 1323)</th><th>Other regulation / requirement</th></tr><tr><td>Environmental Management Strategy</td><td>Schedule 5: Section 1</td><td></td><td></td></tr><tr><td>Environmental Monitoring Plan</td><td>Schedule 5: Section 2</td><td>Condition P1, M1</td><td></td></tr><tr><td>Noise Monitoring Program</td><td>Schedule 3: Section 1-8</td><td>Condition L6, M9, R6</td><td></td></tr><tr><td>Blast Monitoring Program</td><td>Schedule 3: Section 9-20</td><td>Condition L7, M7, R4</td><td></td></tr><tr><td>Air Quality Monitoring Program</td><td>Schedule 3: Section 21-26</td><td>Condition L8, M8</td><td></td></tr><tr><td>Spontaneous Combustion Management Plan</td><td>Schedule 3: Section 24</td><td>Condition E1, R5</td><td></td></tr><tr><td>Site Water Management Plan (incorporating Site Water Balance, Erosion and Sediment Control Plan, Surface Water Monitoring Program, Groundwater Monitoring Program, Surface and Groundwater Response Plan)</td><td>Schedule 3: Section 27-33</td><td></td><td>NSW Office of Water
Dam Safety Committee</td></tr><tr><td>Landscape Management Plan (incorporating Rehabilitation and Offset Management Plan, Final Void Management Plan and Mine Closure Plan)</td><td>Schedule 3: Section 34 - 41</td><td></td><td>DII – Mining Operations Plan</td></tr><tr><td>Aboriginal Heritage Plan</td><td>Schedule 3: Section 43</td><td></td><td></td></tr><tr><td>Greenhouse and Energy Efficiency Plan</td><td>Schedule 3: Section 46</td><td></td><td></td></tr></table></td><td>This was noted, however the audit did not require a finding to be made against this point.</td><td>Not Triggered</td></tr>
<tr><td colspan="4">Consultation Processes (Community and Regulatory)</td></tr>
<tr><td>5.6.5</td><td>Drayton has a well established relationship with government authorities and the local community. It is well recognised at Drayton that community engagement is a key component for social acceptance of mining in an area. As such, Drayton has developed strong working relationships with these stakeholders by employing a variety of communication methods including:

Person to person meetings,
Operation of a Community Consultative Committee,
Production of community newsletters,
Publically available website, and
Open days.</td><td>This was noted, however the audit did not require a finding to be mage against this.</td><td>Not Triggered</td></tr>
<tr><td>5.6.5</td><td>Environmental representatives routinely visit near neighbours to discuss environmental issues and to address any questions the community may have regarding mining in general or Drayton specific issues. Follow up visits are conducted when required.</td><td>A review of the site's complaints records and site interviews conducted by the auditors confirmed that these requirements have been complied with.</td><td>Compliant</td></tr>
<tr><td>5.6.5</td><td>A community consultative committee (CCC) was established in 1990. Meetings of the CCC are conducted on a quarterly basis and members comprise local government, local community and mine environmental personnel. Environmental information is presented at these meetings and members are offered opportunities to visit mining operations and to follow-up concerns which may be raised from the general public.</td><td>Section 4.2 of the AEMRs 2012, 2013 and 2014 outlined the operation of the CCC for the relevant reporting periods. The CCC appears to have been operated according to these guidelines.</td><td>Compliant</td></tr>
<tr><td>5.6.5</td><td>Community newsletters are produced and mailed to all near neighbours and local council. Information presented includes current news relating to the mining operations, upon which may be of interest to the local community.</td><td>No reference is made to such newsletters in the CCC minutes, the AEMRs or the Anglo Coal website.</td><td>Administrative non-compliance</td></tr>
<tr><td>5.6.5</td><td>Drayton has, as part of the current approval process, developed a website where environmental data is presented on a quarterly basis, daily blasting information is available, minutes of Community Consultative Committee meetings and environmental management plans and reports are freely available.</td><td>The auditors were not able to access all of this information on the Drayton website. Specifically, a copy of the 2012 AEMR and the Environmental Management Strategy (Anglo Coal, 2010) were not available on the Drayton website. A 2008 version of the Noise Management Plan was the only version available online, as well as a 2008 version of the Spontaneous Combustion Management Plan.</td><td>Administrative non-compliance</td></tr>
<tr><td>5.6.5</td><td>Drayton also host open days on period occasions, where local community members are invited to the mine for tours, information etc.</td><td>No references to open days are mentioned in the AEMRs or the CCC minutes for the audit period.</td><td>Administrative non-compliance</td></tr>
<tr><td colspan="4">Handling Complaints</td></tr>
<tr><td>5.6.6</td><td>Drayton has a well established process for handling complaints and enquiries from the community. This system has been in place since 1985, and has continuously been improved throughout this time.</td><td>This was noted, however the audit did not require a finding to be mage against this.</td><td>Not Triggered</td></tr>
<tr><td>5.6.6</td><td>If a complaint or enquiry is received, it is immediately investigated. Details such as complainant name, contact details, nature of concern, data, time and method of receival are recorded. While details of the enquiry vary depending on the nature and source of the enquiry, the following actions may result:
Confirmation of whether the complainant would like the matter raised as a complaint or an enquiry.
Identify further details which may assist in determining the cause of the complaint.
Carry out an inspection of the site or conduct an assessment of monitoring results to identify the source.
Identify if there is an exceedance or non compliance with any consent or licence condition

Identify, where necessary and practical, methods to manage the source of the complaint and minimise the chance of a recurrence of further complaints.
A follow up call is also made to the complainant after which time, all details pertaining to the incident are known and corrective actions have been determined to manage the issue.</td><td>A review of the site's complaints records and site interviews conducted by the auditors confirmed that these requirements have been complied with.</td><td>Compliant</td></tr>
<tr><td>5.6.6</td><td>All enquiries and/or complaints are recorded in an enquiries database and are presented in the AEMR.</td><td>This database was viewed by the auditors during the site visit, and Section 4.1 of the 2012, 2013 and 2014 AEMRs otherwise fulfils these requirements.</td><td>Compliant</td></tr>
</table>

Exceedance Protocols			
5.6.7	If an exceedance of approval conditions or environment protection licence conditions occurs, Drayton shall report the exceedance to the respective authority within 24 hours of the exceedance becoming known. An internal investigation will be undertaken and findings will be forwarded to the respective authority. Details of any exceedance will also be included in the AEMR.	On 10 January 2014 a significant diesel spill was identified on the site, constituting an environmental harm incident as per the definition afforded in the Protection of the Environment Operations Act 1997. However, the authorities were not notified of this on the same day, and the evidence indicates they were not advised until 13 January 2014. This spill was contained onsite, and was subsequently remediated to the satisfaction of the EPA. Preventative mechanisms were also installed at the site of the diesel spill to prevent future reoccurrence of the same.	Non-compliant
Dispute Resolution			
5.6.8	In the event that Drayton and a regulatory agency cannot agree on a specification of requirement applicable under the Project Approval conditions, the matter shall be referred to the Director-General of the DoP. If not resolved by the Director-General, it will then be referred to the Minister for Planning, whose determination of the disagreement is final and binding.	This has not occurred during the audit period.	Not Triggered
	If a dispute arises between Drayton and a private landowner that cannot be resolved between the two parties, the matters will be referral to the Director-General of DoP for resolution. If the matter cannot be resolved, the Director-General shall refer the matter to an Independent Dispute Resolution Process.	This has not occurred during the audit period.	Not Triggered
Response to Non Compliance			
5.6.9	Environmental compliance at Drayton is monitored through ongoing monitoring processes, environmental audits, external certification audits, compliance audits and external audits or inspections conducted by regulatory authorities.	This was noted, however the audit did not require a finding to be mage against this.	Not Triggered
5.6.9	Outcomes from these activities are recorded in a database along with proposed actions to correct the non compliance to achieve compliance again.	The auditors observed evidence of the compliance tracking system Enableon being used onsite to manage non-compliances, etc.	Compliant
5.6.9	If an event occurs during operational processes that results in a non compliance, whether it could cause or has caused significant environmental harm it must be reported to the site Environmental Coordinator, Safety and Sustainable Development (S&SD) Manager or Mine Manager immediately. The S&SD Manager shall then determine whether the DECCW and/or DoP should be notified.	On 10 January 2014 a significant diesel spill was identified on the site, constituting an environmental harm incident as per the definition afforded in the Protection of the Environment Operations Act 1997. However, the authorities were not notified of this on the same day, and the evidence indicates they were not advised until 13 January 2014. This spill was contained onsite, and was subsequently remediated to the satisfaction of the EPA. Preventative mechanisms were also installed at the site of the diesel spill to prevent future reoccurrence of the same.	Non-compliant
5.6.9	If the incident is reportable, the S&SD Manager shall provide a written notification and report to the DECCW within 6 days detailing the following: Date, time and nature of non compliance, Identify the cause, or likely cause, of the non compliance, Describe what actions have been taken to prevent a recurrence, and Describe the proposed measures to address the non compliance.	The resulting Diesel Spill Incident Report which appears to have been provided to the EPA is dated 20 January 2014, which is ten days after the diesel spill incident first came to the attention of staff onsite. However, the EPA requested the report in writing with a due date of 28 January 2014.	Compliant
Managing Cumulative Impacts			
5.6.10	Drayton's Environmental Assessment assessed cumulative impacts from the project as part of the assessment process. From a community perspective, key cumulative issues relate to blasting, noise, air quality and groundwater levels.	This was noted, however the audit did not require a finding to be mage against this.	Not Triggered
5.6.10	Drayton has an extensive environmental monitoring program, which covers each of these areas. Since Drayton has been operating in excess of 20 years, cumulative impact monitoring is accessible through comparisons of data over lengthy periods of time.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
5.6.10	All monitoring data from Drayton is maintained in an extensive database. Various reports allow for parameters to be reported as required.	The auditors observed evidence of the compliance tracking system Enableon being used onsite to manage monitoring data and non-compliances, etc.	Compliant
5.6.10	Managing cumulative impacts needs to also take into account other neighbouring mines and industries. In the event of two or more mines being identified as contributors with similar proportion of impact, then each mine will be required to reach an agreement on mitigative strategies. The degree of responsibility for each mine will be based on the apportion of impact attributed to their operation. If the mines cannot reach agreement on either the mitigative strategy to be implemented or the apportionment, then the matter will be referred to the Director General to resolve the matter.	Evidence of consultation with neighbouring mines to manage impacts such as air quality was observed by the auditors during a review of site documentation, as well as during interviews with onsite personnel. There have been no such matters during the audit period which were referred to the Director General as such.	Compliant
5.6.10	The ongoing management of cumulative issues will encompass the following: Ongoing environmental monitoring and analysis of data against long term trends; Planning operations so as to minimise Drayton's impact on air quality and noise emissions; and Continued community consultation with near neighbours regarding further mitigation measures or the establishment of an agreement that may be implemented.	Evidence of consultation with neighbouring mines to manage impacts such as air quality was observed by the auditors during a review of site documentation, as well as during interviews with onsite personnel. There have been no such matters during the audit period which were referred to the Director General as such.	Compliant
Emergency Response			
5.6.11	Emergency response procedures form a component of Drayton's Safety Health Environment and Community Management System (SHECMS). Trained Emergency Response personnel are available on site at all times. Simulated emergency exercises are conducted on a regular basis to assess the effectiveness of their emergency management and to continuously improve emergency response actions.	A review of site documentation as well as the site visit conducted by the auditors confirmed that these requirements are being carried out.	Compliant
5.6.11	Emergency responses involves the following aspects: Response to specific emergency situations; Notification processes for internal and external notifications; Documented accountabilities for key roles in emergency response; Evacuation procedures to be followed; Communication protocols and event detail logging process; and Debriefs post event to include all relevant persons and actions to be implemented to minimise the risk of a recurrence.	This was noted, however the audit did not require a finding to be mage against this.	Not Triggered
5.6.11	In addition to the above aspects, protocols have also been established for dealing with the media, counselling and community relations.	This was noted, however the audit did not require a finding to be mage against this.	Not Triggered
	Emergency response duty cards as defined in SHECMs procedure "Emergency Response Management Plan."	This was noted, however the audit did not require a finding to be mage against this.	Not Triggered
	Table 5 details responses to typical environmental emergencies within the mining operations.	This was noted, however the audit did not require a finding to be mage against this.	Not Triggered

Emergency Type	Emergency Response
Oil, Fuel or Chemical Spill	➢ Review safety risks around emergency site ➢ Notify MLC of incident and advise details of incident ➢ Take measures to minimise risk of fire ➢ Contain spill at the source or along it's path with booms or physical barrier ➢ Pump spill into containers (if available) and label containers clearly ➢ Recover spill with absorbent material and place in appropriate waste collection containers ➢ Transfer remaining fluid to appropriate safe container ➢ Advise environmental department ➢ Environmental department to organise recovery of contaminated soil and disposal as per waste management procedure ➢ Area to be remediated and recorded.
Bush Fire	➢ Review safety risks around emergency site ➢ Notify MLC of incident and advise details of incident ➢ Mining Coordinator to organise fire truck and emergency response team ➢ If safe to do so, use available equipment to control the fire. ➢ Assist the Mining Coordinator as required. ➢ Advise environment department
Tailings Spill	➢ Review safety risks around emergency site ➢ Notify MLC of incident and advise details of incident ➢ Turn off valves and pumps immediately ➢ Control the source of the leak in the dam (if possible) ➢ Contain the spill at its source or along it's path with booms or physical barrier ➢ Consult with Mining Coordinator and Mine Manager regarding temporary repairs ➢ Advise environment department regarding cleanup procedures ➢ Environment department to assess impact and advise of reporting requirements ➢ Environment department to organise cleanup of site and remediation works.
Water Discharge	➢ Review safety risks around emergency site ➢ Notify MLC of incident and advise details of incident ➢ Turn off pumps and valves immediately or turn pumps on immediately (dependent upon emergency) ➢ Contain the discharge if possible or construct earthen bund to control discharge ➢ Record time of discharge, potential volumes and quality of water ➢ Consult mining coordinator and mine manager regarding temporary containment ➢ Consult environment department regarding cleanup procedures ➢ Environment department to determine off site impacts and notification protocols

Appendix U

Audit Protocol: *Environmental Monitoring Program* (AngloAmerican, July 2013)

Appendix U Audit Protocol: *Environmental Monitoring Program* (AngloAmerican, July 2013)

Reference	Requirement	Evidence	Audit Finding
Environmental Monitoring Program (AngloAmerican, July 2013)			
4.1 Responsibilities			
4.1	**SHE Manager** • Ensuring all environmental monitoring is undertaken as required by the Project Approval conditions.	A review of documentation and the site interviews conducted by the auditors confirmed that these requirements are generally being carried out.	Compliant
4.1	**Environmental Coordinator** • Ensuring all environmental monitoring is undertaken as per Project Approval requirements • Ensuring all environmental monitoring is undertaken as per the relevant Australian Standard or Approved Method • Ensuring all monitoring results are entered into the Drayton Environmental Database • Review environmental processes and data collection • Implementing the environmental monitoring program.	A review of documentation and the site interviews conducted by the auditors confirmed that these requirements are generally being carried out.	Compliant
4.1	**Environmental Officer** • Undertaking environmental monitoring as required by the Project Approval • Ensuring that correct procedures are followed during sample collection • Entering all environmental monitoring results into the Drayton environmental database • Ensuring all environmental monitoring equipment is maintained and serviced as required • Ensuring all environmental equipment is calibrated according to equipment specifications and Australian Standards.	A review of documentation and the site interviews conducted by the auditors confirmed that these requirements are generally being carried out.	Compliant
4.2 Audit/Review Schedule			
4.2	This monitoring plan is to be reviewed at least every three years or as otherwise directed by the Director-General of DoPI.	The current version of the Environmental Monitoring Plan was updated in July 2013. However the plan had not been updated since June 2008 and was therefore without revision for more than three years during the audit period.	Administrative non-compliance
4.2	In accordance with Project Approval (06_0202), Drayton will commission an independent environmental audit to the satisfaction of Director-General of DoPI every three years. The audit will include an assessment of the adequacy of all management and monitoring plans. Where necessary, following the audit this monitoring plan may be updated and action taken to improve environmental monitoring practices at Drayton.	The previous audit recommended that the Environmental Monitoring Program be updated to include a quality assurance/quality control plan which is suitable for all monitoring undertaken on site. The Program does not appear to have been updated accordingly.	Administrative non-compliance
4.3 Records Management			
4.3	All records of environmental monitoring must be kept on file in the SHE Department for the duration of the life of mine.	Monitoring records were able to be produced and provided to audit team members during the site visit.	Compliant
4.5 References			
4.5	Environmental monitoring at Drayton is conducted in accordance with the following management plans, approvals/Acts, regulatory or corporate requirements: • The Protection of the Environment Operations Act, 1997 (PoEO Act) administered by the Office of Environment and Heritage and associated environmental licence (Ref 1323) • Environmental Planning and Assessment Act, 1979 (EP&A Act) administered by the Department of Planning and Infrastructure (DoPI) and associated project approval conditions (Ref 06_0202, and DA 106-04-00) • Anglo Coal Drayton Mine Environmental Assessment 2007 (now referred to as Anglo American Metallurgical Coal) • Various management plans as required by Project Approval 06_0202 and DA 106-04- 00 • Anglo American Metallurgical Coal Safety, Health and Environment Management System (SHEMS) • Australian Standard 3580.9.3 - 2003 Methods For Sampling and Analysis of Ambient Air – Determination of Suspended Particulate Matter – Total Suspended Particulate Matter (TSP) – High Volume Sampler Gravimetric Method • Australian Standard 3580.9.6 – 2003 Methods For Sampling and Analysis of Ambient Air – Determination of Suspended Particulate Matter – PM (sub) 10 High Volume Sampler With Size Selective Inlet – Gravimetric Method • Australian Standard 3580.10.1 – 2003 – Methods For Sampling and Analysis of Ambient Air – Determination of Particulate Matter – Deposited Matter – Gravimetric Method • Australian Standard 5667.1 – 1998 Water quality - Sampling - Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples • Australian Standard 5667.6 – 1998 Water quality - Sampling - Guidance on sampling of rivers and streams • Australian Standard 5667.11 – 1998 Water quality - Sampling - Guidance on sampling of groundwaters • Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (EPA, 2005).	Monitoring at the site was generally found to be in accordance with these relevant regulatory requirements and standards.	Compliant

4.6 Monitoring Requirements

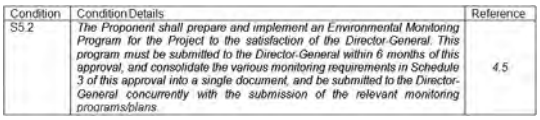
4.6	The frequency and location of various environmental monitoring requirements as described in the Project Approval (Schedule 3). Monitoring sites are shown in Table 1. **Table 1 - Overview of the Project Environmental Monitoring Program**	A review of documentation and the site interviews conducted by the auditors confirmed that these requirements are generally being carried out.	Compliant

Parameter	Monitoring Sites	Frequency	Section
Meteorological			
Temperature Relative Humidity Rainfall Wind Velocity Wind Direction	Automatic Weather Station	Continuous	4.7
Noise [1]			
Attended noise monitoring	Doherty residence Halloran Residence Robertson Residence Horder Residence	Monthly	4.8.1
Independent Noise Compliance Monitoring	Location R16:Doherty Location R25:Kerr Location R35:Wilson Location R42:Smith Location R61:Skinner Location R72:Robertson Location R75:Sharman Location R76:Horder	6 Monthly	4.8.2
Real Time Monitoring	Lot 9 Antiene (Barn Owl)	Continuous	4.8.3
Air Quality			
Dust Deposition	2130, 2157, 2175, 2197, 2208, 2230, 2235, 2247	Monthly	4.9.1
High Volume Air Sampling (TSP)	Lot 22 Antiene	6 day cycle	4.9.2
TEOM (PM_{10})	Lot 9 Antiene	Continuous	4.9.3
Blasting – Airblast Overpressure and Ground Vibration [2]			
Ground Vibration	Lot 24 Antiene De Boer monitor Sharman monitor Ash Dam monitor	Every blast	4.10
Airblast Overpressure	Lot 24 Antiene De Boer monitor Sharman monitor	Every blast	4.10
Surface Water			
pH, EC, TDS, non filterable residue, sodium, magnesium, calcium, potassium, chloride, sulphate and bicarbonates	2081, 2221, 1895, 2090, 2109, 2114, 1895, 1609, SW13, 1969	Monthly	4.11
pH, EC, Total Soluble Salts	ES Void	Quarterly	4.11
Groundwater [3]			
Standing Water Level, field pH, EC, Salinity and TDS (on site)	F1167, F1168, F1162, F1164, F1024, F1163, W1102, R4243, R4220, R4224, R4241	Monthly	4.12
Major Ions and Rare Elements (Offsite)	F1164, R4241, R4224, F1024, F1168	6 Monthly	4.12
Standing Water (offsite) (Identified and Utilised Bores Only)	GW060263, GW047690, GW055208, GW080972	Monthly (if required)	4.12
Rehabilitation			
Rehabilitation performance will be monitored to ensure vegetation is establishing. Maintenance work will be assessed.	Rehabilitation Sites	Annually	4.13
Tree establishment – Thomas Mitchell Drive	Thomas Mitchell Drive Tree Establishment Area	Annually	4.13
Offset Strategy	Offset Areas	Annually	4.13
Coal Transport			
Coal production and train movements	Rail Loadout	Annually (coal production) Daily (train movements)	4.14
Greenhouse and Energy Efficiency			
Diesel Electricity Explosives Fugitive Emissions	Equipment usage and blasting	Annually	4.15
Waste			
Waste Oil Metal General Waste Recyclable Wastes	Monthly Collection Waste data forms	Annually	4.16
Spontaneous Combustion			
Area and Intensity of Spontaneous Combustion areas	Active Spontaneous Combustion areas	6 Monthly	4.17

4.6	Attended Noise Monitoring - will be undertaken at the nearest location to the residence and shall be subject to consent of the resident. Attended noise monitoring may also be required at additional monitoring locations dependent upon requests received by landowners and/or residents.	This monitoring is undertaken, as per monthly reports from acoustic consultant. The monthly noise monitoring reports do not specify the proximity from dwellings at which monitoring is undertaken. However the monitoring methodology has been found to be satisfactory by the DP&E and the EPA. Monitoring at additional locations has not been required during the audit period.	Compliant
4.6	Blasting - airblast and ground vibration levels may also be monitored at other residences dependent upon complaints received. These will be conducted using a portable monitor.	This has not been required during the audit period.	Not Triggered
4.6	Ground water bore monitoring of registered offsite bores will commence if bores re located and permission obtained from the resident land owner.	This has not been required during the audit period.	Not Triggered

4.7 Meteorological Monitoring			
4.7	An automatic weather station has been operational at Drayton since 1982. Temperature, relative humidity, wind speed, wind direction and rainfall are recorded on a five minute basis, with summaries being obtained hourly and daily. This station is operated in accordance with the requirements of the Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (EPA, 2005).	During the current audit, the meteorological stations onsite were inspected and observed to be operating correctly. However the site was not able to provide relevant calibration records for one of the meteorological stations.	Administrative non-compliance
4.8 Noise			
4.8	Drayton has a well developed noise monitoring program that was established at the commencement of mining operations. This involves a combination of attended monitoring, unattended monitoring and independent monitoring as detailed in the Noise Monitoring Program. All results from this monitoring will be analysed and summarised in the Annual Environment Management Report.	Section 3.10 of AEMRs 2012 and 2013, as well as Section 3.11 of the AEMR 2014 fulfil this requirement.	Compliant
4.8.1 Attended Noise Monitoring			
4.8.1	Attended noise monitoring is undertaken monthly at the following representative residences located within close proximity to Drayton's mine lease boundary: • Halloran Residence - Pamger Drive Muswellbrook • Robertson Residence- Thomas Mitchell Drive, Muswellbrook • Doherty Residence - Balmoral Road, Muswellbrook • Horder Residence - Thomas Mitchell Drive, Muswellbrook	This monitoring continues to take place, as per the monthly noise monitoring reports prepared by an acoustics consultancy.	Compliant
4.8.1	Parameters measured include LAeq, LAmax, LA1, LA10, LA50, LA90 which are measured over a 15 minute time period and are quantified and characterised.	Results for all the required parameters are not recorded within the monthly noise monitoring reports.	Administrative non-compliance
4.8.1	Additional attended monitoring is undertaken on an as needs basis if a request is received from a resident in the vicinity of the Drayton operation.	This has not been required during the audit period.	Not Triggered
4.8.2 Independent Noise Compliance Monitoring			
4.8.2	Monitoring is conducted at eight representative residential locations to quantify the overall ambient noise amenity criteria for the Project: • Resident 16: Doherty • Resident 25: Kerr • Resident 35: Wilson • Resident 42: Smith • Resident 61: Skinner • Resident 72: Robertson • Resident 75: Sharman • Resident 76: Horder.	This monitoring continues to take place, as per the monthly noise monitoring reports prepared by an acoustics consultancy.	Compliant
4.8.2	This monitoring is to be conducted by a qualified acoustic consultant. The information obtained in attended monitoring will be used to model noise levels at 23 other receivers listed in EPL1323. Results of any independent monitoring assessments will also be reported in the Annual Environment Management Report.	Section 3.10 of AEMRs 2012 and 2013, as well as Section 3.11 of the AEMR 2014 fulfil this requirement.	Compliant
4.8.3 Real Time Noise Monitoring			
4.8.3	A real time noise monitoring station is operating at Lot 9 Antiene conducting 24 hour and directional noise monitoring. Information relating to noise emissions is readily available to key personnel instantaneously should an enquiry be received.	This real time monitoring continues, as outlined in Section 3.10.2 of AEMRs 2012 and 2013, and Section 3.11.2 of AEMR 2014.	Compliant
4.9 Air Quality			
4.9	An Air Quality Management and Monitoring Plan has been in operation at Drayton since 1982. This details dust deposition, PM10 and TSP concentrations utilising a network of dust depositional gauges, TEOM and high volume air samplers.	This monitoring network continues in operation.	Compliant
4.9.1 Dust Deposition			
4.9.1	A network of eight dust depositional gauges exist in the Antiene area to assess air quality impacts on the Antiene subdivision, directly to the north of the mine lease and are collected as a component of Drayton's environmental monitoring system on a monthly basis. These gauges have been in operation for over 20 years and have well established baseline levels to compare current ambient levels with. Dust depositional gauges locations are as follows: • DG 2130 • DG 2157 • DG 2175 • DG 2197 • DG 2208 • DG 2230 • DG 2235 • DG 2247.	This monitoring continues to be undertaken.	Compliant
4.9.1	Monitoring is undertaken as per Australian Standard 3580.10.1 - 2003 and gauges are collected monthly and analysed for ash, combustible matter and insoluble solids. This information is reported in the AEMR and posted monthly on the Drayton website.	This monitoring continues to be undertaken, and the results were available for the auditors to access on the Drayton website. Section 3.1 of the 2012, 2013 and 2014 AEMRs also fulfils this requirement.	Compliant
4.9.2 Total Suspended Particulates			
4.9.2	A high volume air sampler is used to monitor atmospheric suspended particulate matter having an approximate equivalent aerodynamic diameter of less than 50µm. This sampler has been in operation for several years and has established baseline levels to compare current ambient levels with. This is located at: • Lot 22 Antiene	This monitoring continues to be undertaken, and the auditors were able to access the results on the Drayton website.	Compliant
4.9.2	This high volume air sampler will operate on a six day cycle with monitoring undertaken as per Australian Standard 3580.9.3 - 2003. This information is reported in the AEMR and posted monthly on the Drayton website.	This monitoring continues to be undertaken, and the auditors were able to access the results on the Drayton website.	Compliant
4.9.3 Particulate Matter – PM10			
4.9.3	One high volume air sampler has historically been used to monitor particulate matter less than 10µm in size. This sampler has been replaced by a continuous TEOM (Tapered Element Oscillating Microbalance) monitor. This sampler is located at: • Lot 9 Antiene	This monitoring continues to be undertaken, and the results were available for the auditors to access on the Drayton website.	Compliant
4.9.3	This sampler operates on a continuous basis as per Australian Standard 3580.9.6 - 2003. This information is reported in the AEMR and posted monthly on the Drayton website.	This monitoring continues to be undertaken, and the results were available for the auditors to access on the Drayton website.	Compliant

4.10 Blasting – Airblast Overpressure and Ground Vibration			
4.10	A Blasting Management and Monitoring Plan is well established for the Project, which includes real-time monitoring of airblast overpressure and ground vibration levels for all blasts. Drayton has been monitoring blasts in excess of 20 years and has an extensive database of airblast and ground vibration results. Ground vibration levels are monitored at the Ash Dam Levee Monitor to comply with NSW DSC requirements.	Section 7.2.1 of the 2012 and 2013 AEMRs and Section 7.3.1 of the 2014 AEMR confirm that this monitoring continues to be carried out.	Compliant
4.10	Monitoring locations in relation to residences are: • Lot 24 Antiene – adjacent to Doherty property • De Boer monitor – adjacent to De Boer property • Sharman monitor – Sharman residence	This monitoring data was available on the Drayton website at the time of the audit.	Compliant
4.10	These permanent stations have been commissioned to represent levels in the Antiene estate.	This was noted, although the audit did not require a finding to be made against this condition.	Not Triggered
4.10	This information is reported in the AEMR and posted monthly on the Drayton website.	This monitoring data was available on the Drayton website at the time of the audit. Section 3.9 of the AEMRs 2012 and 2013, as well as Section 3.10 of the AEMR 2014 fulfil these requirements.	Compliant
4.10	In addition, supplementary airblast overpressure and ground vibration monitoring can be undertaken on an as needs basis utilising portable monitors.	This was noted, although the audit did not require a finding to be made against this condition.	Not Triggered
4.11 Surface Water			
4.11	A surface water monitoring program has been in place at the Project since 1982. All major dams, both mine water and clean are monitored on a monthly basis for pH, electrical conductivity, total dissolved solids, suspended solids, sodium, magnesium, potassium, calcium, chloride, sulphate and bicarbonates.	Section 3.3 of the 2012, 2013 and 2014 AEMRs confirms that these parameters continue to be monitored.	Compliant
4.11	Key surface water sites in regard to offsite impacts are as follows: • Dam 2081 • Dam 2221 • Dam 2090 • Dam 1895.	This was noted, although the audit did not require a finding to be made against this condition.	Not Triggered
4.11	Monthly monitored sites that follow the Drayton Water Management Plan are as follows: • Dam 2081 • Dam 2221 • Dam 1895 • Dam 2090 • Dam 2109 • Dam 2114 • Dam 1895 • Dam 1609 • Dam SW13 • Dam 1969.	The AEMR 2014 does not contain any monitoring results for Dam 2090. It is recommended that the Environmental Monitoring Program be reconciled with the Water Management Plan to ensure the correct monitoring points are identified.	Administrative non-compliance
4.11	The monitoring and quarterly sampling of Drayton tailings emplacements in the ES Void is detailed in the Tailings Management Plan and follows the Site Water Monitoring Plan monitoring program. The ES Void is monitored for pH, Conductivity and Total Soluble Salts.	This monitoring continues to be undertaken.	Compliant
4.11	Surface water quality monitoring and sample collection, storage and transportation are detailed in the Drayton Water Management Plan and undertaken as per Australian Standard 5667 - 1998. All analysis is undertaken by a NATA accredited laboratory.	Examples of surface water lab results fulfilling this requirement were cited by the auditors.	Compliant
4.12 Groundwater			
4.12	A groundwater monitoring program has been in place since 1982. This involves monthly monitoring of standing water levels. In more recent years, this has been supplemented by the addition of pH, electrical conductivity, salinity and total dissolved solids. Groundwater monitoring sites are as follows: • F1167 • F1168 • F1162 • F1164 • F1024 • F1163 • W1102 • R4243 • R4220 • R4224 • R4241.	While it is understood that these groundwater bores continue to be monitored, it is recommended that the list of groundwater monitoring bores be reconciled with those presented in the current Water Management Plan, which is out of date.	Compliant
4.12	Six Monthly monitoring is conducted with a full speciation of major ions and rare elements including the following parameters: Sulphur, Aluminium, Calcium, Soluble Iron, Magnesium, Sodium, Silicon, Boron, Copper, Nickel, Phosphorus, Zinc, Chromium, Strontium, Arsenic, Barium, Silver, Lead, Cadmium, Cobalt, Selenium, Lithium, Beryllium, Rubidium, Cesium, Chloride, Hydroxide, Carbonate, Bicarbonate, Total Dissolved Solids, Total Alkalinity and Sulphates. The following piezometers will be subject to this selective analysis: • F1164 • R4241 • R4224 • F1024 • F1168.	This groundwater monitoring continues at the site.	Compliant
4.12	Groundwater monitoring and sample collection, storage and transportation are detailed in the Drayton Water Management Plan and undertaken as per Australian Standard 5667 - 1998. Analysis of these samples must be analysed by a certified NATA accredited laboratory.	Examples of groundwater lab results fulfilling this requirement were cited by the auditors.	Compliant
4.12	The groundwater monitoring plan will also monitor specific offsite bores if they are actively utilised. These have been identified as: • GW060263 • GW047690 • GW055208 • GW080972.	This was noted, although the audit did not require a finding to be made against this condition.	Not Triggered

4.13 Rehabilitation			
4.13	Rehabilitation performance will be monitored on an ongoing basis to assess vegetation establishment and to determine if there is a need for additional maintenance measures to be implemented. Details of rehabilitation monitoring will be included in the AEMR and will be included in the annual inspection. Tree establishment and monitoring of the offset areas will also be reported in the AEMR.	Section 5 of the AEMRs 2012, 2013 and 2014 fulfils these requirements.	Compliant
4.14 Coal Transport			
4.14	Records are kept regarding annual tonnages and coal tonnages transported from site on an annual basis. This includes recording total number of coal haulage train movements on a daily basis. Information is also received from Mt Arthur Coal regarding train numbers and coal tonnages transported along the Antiene Rail Spur. This information is reported every six months to the DoPI and in the AEMR.	This rail activity data is provided in Appendix H of the AEMRs 2012, 2013 and 2014.	Compliant
4.15 Greenhouse and Energy Efficiency			
4.15	Anglo American Metallurgical Coal is a signatory to the Greenhouse Challenge and as such diesel, electricity and explosives are recorded on an annual basis from which carbon dioxide (CO_2) equivalent emissions can be calculated. These parameters as well as fugitive gas emissions are reported in compliance with National Greenhouse and Energy Reporting (NGER) requirements. These CO_2 equivalent greenhouse gas emissions will be reported in the AEMR.	This was included in Section 3.1.14 of the AMERs 2013 and 2014.	Compliant
4.16 Waste			
4.16	Waste generation has been recorded at Drayton for several years and requirements were detailed in Drayton's Waste, Overburden and Hazardous Materials Management Plan. This practise shall continue in accordance with the Drayton Waste Management Plan with any waste products removed from site being recorded and reported in the AEMR.	Section 2.6 of AEMRs 2012, 2013 and 2014 fulfil this requirement.	Compliant
4.17 Spontaneous Combustion			
4.17	Spontaneous combustion is monitored on a monthly basis as outlined in the Drayton Spontaneous Combustion Management Plan. This monthly monitoring is on affected area and intensity. Reports are prepared and submitted to the NSW Environmental Protection Agency every six months.	Examples of the six monthly reports fulfilling these requirements were cited by the auditors. The auditors also cited the relevant energy records relating to spontaneous combustion.	Compliant
4.18 Reporting			
4.18	Drayton shall prepare an AEMR that will consolidate all environmental monitoring and reporting as required by this monitoring plan and referenced management Plans, the Project Approval Conditions and EPL1323.	The AEMRs 2012, 2013 and 2014 fulfil these requirements.	Compliant
4.18	A copy of this management plan will be made available to Drayton's Community Consultative Committee (CCC). In addition, the management plan will also be publicly available on Drayton's website: http://www.anglocoal.com.au/our-operations/thermal-coal/drayton/environment.aspx.	This plan was able to be accessed via the Drayton website by the auditors during the audit. CCC meeting minutes reference the provision of plans an AMERs to CCC members.	Compliant
4.18	In accordance with the Project approval conditions, a summary of the environmental monitoring results will also be made publicly available on the website and shall be updated monthly.	This monitoring data was available on the Drayton website at the time of the audit.	Compliant
4.19 Statutory Requirements			
4.19	This plan has been developed in accordance with the requirements of the NSW DoPI for the Drayton Mine Extension (06_0202) issued in 2008. Conditions regarding Environmental Monitoring Program are as follows:	This was noted, although the audit did not require a finding to be made against this condition.	Not Triggered
	 Condition / Condition Details / Reference S5.2 — *The Proponent shall prepare and implement an Environmental Monitoring Program for the Project to the satisfaction of the Director-General. This program must be submitted to the Director-General within 6 months of this approval, and consolidate the various monitoring requirements in Schedule 3 of this approval into a single document, and be submitted to the Director-General concurrently with the submission of the relevant monitoring programs/plans* — 4.5	This was noted, although the audit did not require a finding to be made against this condition.	Not Triggered

Appendix V

Audit Protocol: Independent Environmental Compliance Audit – Drayton Coal – Project Approval 06_0202 and Development Application 106-04-00 (Parsons Brinckerhoff, October 2012)

Appendix V Audit Protocol: Independent Environmental Compliance Audit – Drayton Coal – Project Approval 06_0202 and Development Application 106-04-00 (Parsons Brinckerhoff, October 2012)

Reference	Requirement	Evidence	Audit Finding
Independent Environmental Compliance Audit – Drayton Coal – Project Approval 06_0202 and Development Application 106-04-00 (Parsons Brinckerhoff			
Recommendations against Noise Management Plan			
Table 8.2 - Drayton Coal may wish to consider revising the NMP to include the following:	Noise monitoring data at the identified receiver locations could be summarised to identify trends in ambient noise and also any measurable contribution from mine operations. The last twelve months of data would be a viable period to consider.	There is no indication that this has been done.	Not considered or actioned
	The noise management measures in Section 5.4 and 5.8 could be consolidated and cross referenced to specific activity and measured noise levels - this should provide a singular point in the plan for staff to turn to in the event of a noise issue.	Sections 11.1 and 11.2 of the *Noise Management Plan* (AngloAmerican, May 2014) fulfil these requirements.	Actioned
	Specific detail could be provided on what monitoring and management measures are contained within the Joint Acquisition Management Plan - the NMP only states this joint venture is in place but provides no details, timeframes or specific responsibilities for Drayton Coal.	Section 11.2 of the *Noise Management Plan* (AngloAmerican, May 2014) fulfils these requirements.	Actioned
	All monitoring could be confirmed to be consistent with guidance in relevant Australian standards, including the calibration of all equipment.	Section 6 of the *Noise Management Plan* (AngloAmerican, May 2014) has not been updated to confirm the use of Australian Standards.	Not considered or actioned
Recommendations against Blast Management Plan			
Table 8.2 - Drayton Coal may wish to consider revising the BMP to include the following:	All measures undertaken by the blasting personnel to minimise impacts could be detailed in the plan. The plan currently assigns the responsibility for achieving the blasting criteria on to the contractor - there should be specific direction for how blasts are controlled.	Sections 4.6.5 to 4.6.10 of the Blasting Management and Monitoring Plan (AngloAmerican, March 2013) fulfil these requirements.	Actioned
	The blasting and meteorological monitoring procedures and methodologies provided in Section 4.6.4 could be revised to include more detail including maps of monitoring locations, specifications for measurements and historical results. In the event there are any issues or the plan is handed to another staff member, there may not be enough information to maintain current systems.	The Blasting Management and Monitoring Plan (AngloAmerican, March 2013) contains a map of monitoring locations.	Actioned
	Any properties that have been already surveyed could be listed in Section 4.6.12.	This update was not considered necessary in the latest update of the Blasting Management and Monitoring Plan (AngloAmerican, March 2013).	Actioned
	Section 4.6.14 should be revised to be more consistent with the reporting requirements in the approval.	The Blasting Management and Monitoring Plan (AngloAmerican, March 2013) fulfils these requirements.	Actioned
Recommendations against Spontaneous Combustion Management Plan			
Table 8.2 - Drayton Coal may wish to revise the SCMP to include:	A more comprehensive objective that conveys a health and safety aspect as well as identifying the key mining legislation and guideline requirements such as: - Coal Mine Health & Safety Act 2002. - Mining Design Guideline (MDG) 1006: Spontaneous Combustion Management Guideline (May 2011).	The document *Anglo American's Metallurgical Coal Business's Drayton Mine Trigger Action Response Plan* has now been prepared to manage occupational exposure resulting from spontaneous combustion.	Actioned
	A shorter period between reviews of the plan (i.e. every two years) and to include a revision response approach to changing conditions such as after: - A major spontaneous combustion event. - Significant change in mining systems, conditions or circumstances. - Change of management structure.	Given that the most recent version of the Spontaneous Combustion Management Plan is dated January 2012, it can be concluded that these recommendations were not considered.	Not considered or actioned
	A more proactive hazard identification process that requires some fundamental testing to be applied to assess the spontaneous combustion risk. Drayton Coal should investigate incorporating the suggested test procedure that can quantify the time taken to reach thermal runaway for a given mine condition.		
	It is suggested that Drayton Coal investigate the feasibility of unmanned aerial vehicle investigation (potentially as a research project) for developing leading practice in spontaneous combustion identification and management.		
	Drayton Coal may wish to revise six monthly reporting of spontaneous combustion events by including additional analysis of events (e.g. rain events) to establish seasonal effects as a precursor to promoting spontaneous combustion.		
Recommendations against Air Quality Management Plan			
Table 8.2	Drayton Coal should proceed with the installation of the real-time air quality monitoring network as soon practicable. The location of each of the monitors should be reviewed in consultation with an air quality specialist. It is also recommended that a full review of air monitoring network is undertaken to assess validity, adequacy and appropriateness of the current monitoring locations and those that are being operated in conjunction with other nearby mining operations.	The real time monitoring is being undertaken, and it is understood that this network has therefore been updated.	Actioned
	Drayton Coal may wish to consider undertaking an internal audit of the all dust deposition gauges to assess compliance with AS3580.1.1:2007 and S3580.10.1:2003.	There is no indication that this has been done, however this was not worded as a binding commitment.	Not Triggered
	Drayton Coal may wish to revise the AQMP so to: - Clarify and update the air monitoring network information. This would include providing a table indicating location of monitors (numbered), monitor averaging periods, location coordinates and primary purpose (i.e. monitoring of sources, background, sensitive receptor). Figure 1 in AQMP should be updated accordingly. - Provide the air quality monitoring program as an appendix to the AQMP. This allows for the continuous improvement of the monitoring plan in line with the most up to date information on the air quality monitoring network. - Amend the air quality control management practices for dust suppression to take into account the best management practices described in the NSW Coal Mining Benchmarking Study: International Best Practice measures to Prevent and/or Minimise Emissions of Particulate Matter from Coal Mining. - Ensure that the adopted management practices are more definitively described, actioned and listed with consideration to each mining activity for personnel referencing the AQMP. The suggested actions should also take into account prevailing meteorological conditions, wind sensitive and wind insensitive emissions sources.	The Air Quality Management and Monitoring Plan (AngloAmerican, November 2013) has not been updated accordingly.	Not considered or actioned

Recommendations against Water Management Plan			
Table 8.2 - Drayton Coal may wish to revise the WMP to include the following:	Details on the methodology for the estimated values of water demands, including how variability of demands in different climatic conditions are taken into account.	Given that the most recent version of the Water Management Plan is dated November 2009, it can be concluded that these recommendations were not considered.	Not considered or actioned
	A stochastic site-wide water balance model is developed and verified for the available historical data.		
	A calculation of maximum runoff based on catchment area, rainfall and soil types to determine flow contributions from: - Upstream catchment. - Mine site. - Downstream catchment to Hunter confluence. This will demonstrate the insignificance of runoff affectation by the site.		
	Methodologies for surface water monitoring including: - Timing. - Chains of custody protocols. - Quality assurance procedures.		
Recommendations against Landscape Management Plan			
Table 8.2 - Drayton Coal may wish to adopt the following strategies and recommended improvements to their erosion and sediment control and rehabilitation methodologies:	Undertake a first principles review of suitable post mine land-use(s) for Drayton Coal. It is likely that a biodiversity post mine land-use is the only appropriate use for spoil dumps and low walls.	This is evidenced by the preparation of the new Draft MOP which will run through until 2020.	Actioned
	Test and characterise mine soils and spoils. Ameliorate spoils, subsoils and topsoil to improve growing conditions for vegetation.	This was undertaken during the audit period, as referenced in Section 2.2 of the 2013 AEMR.	Actioned
	Test and ameliorate soils in already rehabilitated areas to improve rehabilitation performance.	This was undertaken during the audit period, as referenced in Section 2.2 of the 2013 AEMR.	Actioned
	Develop specifications for all aspects of rehabilitation and implement quality assurance processes to demonstrate compliance with specifications.	The Rehab and Offset Plan (203 version) (Section 4.13 and Table 5) provides a list of indicators however no criteria are provided. Section 6 of the MOP provides indicators and criteria However there is an absence of monitoring data aligned to the assessment of many of the indicators and criteria in these documents especially in context of the assessment of post mined lands returning to pasture.	Not considered or actioned
	Undertake spoil erosion assessment and erosion modelling to determine an appropriate slope gradient.	Section 6 of the MOP Table 22 lists the indicators and criteria for slope for all domains on the site. However with the exception of the Coffey report (Appendix D of MOP) which assesses slope stability of the high walls there is no other evidence of the assessment of spoil erosion and erosion modelling to support the slope criteria as listed in the MOP.	Not considered or actioned
	Remove channel banks where adequate vegetation cover exists to return drainage to sheet flow conditions instead of concentrated flow conditions.	This recommendation was reviewed, and found not to be relevant to the rehabilitation activities that have occurred at the Site during the current audit period.	Actioned
	Test and ameliorate spoil and soil to increase infiltration, to reduce runoff and improve revegetation performance.	This was undertaken during the audit period, as referenced in Section 2.2 of the 2013 AEMR.	Actioned
	Limit the height of topsoil stockpile to 1.5 metres. Test topsoil prior to stripping and ameliorate during the stripping process. Revegetate topsoil stockpiles as soon as possible.	The site continues to create stockpiles no more than 3m in height, as outlined in the 2012, 2013 and 2014 AEMRs. There is no evidence that this recommendation has been considered. However it is noted that 3m stockpiles are increasingly being accepted by regulators as long as the health and stability of the stored material can be demonstrated as being maintained. In terms of assessing the soil pre stripping this is an accepted practice to ensure that material with issues such as sodic and dispersive material are handled separately from higher quality loams and clays.	Not considered or actioned
	Retain cleared vegetation and manage on site to form compost. Ameliorate the topsoil with sufficient phosphorous, calcium and organic carbon levels (and other ameliorants as determined by soil and plant tissue testing) to establish open woodland communities.	The site uses OGM instead of composted cleared materials, as not enough materials are generated by site clearing. The Ecological 2012 monitoring included an assessment of the growing media for both mined and reference sites. This report also states in Section 4.2 that the soil results should be reviewed by a soil scientist to identify any limiting factors. This review was undertaken in the document Drayton Mine Setting Practical Soil Standards and Soil Completion Criteria and Interpretation of Soil Data (Global Soil Systems, 2014).	Actioned
Recommendations against Greenhouse and Energy Efficiency Plan			
Table 8.2 - Drayton Coal may wish to revise the GEEP to include the following:	Baseline and historical data on greenhouse gas and energy consumption data compared and trended over subsequent revisions with updated monitoring information.	Given that the most recent version of the Greenhouse and Energy Efficiency Plan is dated May 2008, it can be concluded that these recommendations were not considered.	Not considered or actioned
	A revised list of improvement measures which commit to actual measures with specified and detailed actions and associated methodologies, accountabilities and performance indicators.		
	A protocol for periodically assessing performance and applying corrective actions where necessary.		
Recommendations against Annual Environmental Management Reports			
Table 8.2	Future AEMRs should be revised to present a clearer interpretation of compliance or non-compliance with respect to noise criteria and specific receptors.	The relevant sections of the 2012, 2013 and 2014 AEMRs have not provided a clearer interpretation of these results.	Not considered or actioned
	Future AEMRs should be revised to a more comprehensive analysis of complaints received during the reporting period. Drayton Coal may wish to consider including in this analysis: - Categorisation of the complaints in their respective environmental aspect (i.e. dust, noise etc.). - Categorisation of the complaints into the time of day and type of activity undertaken if possible. - Trending from previous reporting period(s). - Comparison with corporate performance targets for number and types of complaints received.	Appendix F of the 2012, 2013 and 2014 AEMRs fulfils these requirements.	Actioned
	Drayton Coal may also wish to include formal objectives and targets for addressing results of the analysis that would be implemented in the following reporting period.	Section 6.1 of the 2012, 2013 and 2014 AEMRs fulfils this requirement.	Actioned

Recommendations against PA 06-0202			
4.1.1	Although there are no further actions required regarding the non-compliances associated with the noise monitoring, it is suggested that Drayton Coal request that future Spectrum Acoustics reports clearly provide compliance/non-compliance assessments against the specific project approval conditions that relate to noise.	Noise monitoring reports continue to show results in table format. The intent of this previous IEA finding was for noise monitoring reports to include a short statement confirming whether any exceedances were or were not detected during the reporting period. It is recommended that the Site consider including this in its noise reports for ease of reference.	Not considered or actioned - recommendation made
4.2.1	Drayton Coal should ensure the recommendations for improvement provided in Section 6.1 are completed.	None of the recommendations made against the noise management plan have been implemented.	Not considered or actioned
4.4.1	Drayton Coal should review their website management processes so that either Drayton Coal assumes control of the information uploads or processes are made more efficient at the corporate office.	The auditors were not able to access all of this information on the Drayton website. Specifically, a copy of the 2012 AEMR and the *Environmental Management Strategy* (Anglo Coal, 2010) were not available on the Drayton website. A 2008 version of the Noise Management Plan was the only version available online, as well as a 2008 version of the Spontaneous Combustion Management Plan. It is recommended that the Site update its document control process to ensure that when new and revised document are finalised, these are uploaded on the website.	Not considered or actioned - recommendation made
Recommendations against the Erosion and Sediment Control Plan			
4.6.1	accordance with the Managing Urban Stormwater: Soils and Construction Manual): - existing site contours including catchment area boundaries. - locations of critical natural areas requiring special planning of management. - stages of mining. - nature and extent of earthworks, including cut and fill. - locations of all soil stockpiles. - locations of proposed roads. - existing and proposed drainage patterns. - location and types of proposed erosion control measures. - site rehabilitation proposals including final contours. It is also recommended that the ESCP be revised to include more specific detail regarding the maintenance process for sediment control devices.	Given that the latest version of the Water Management Plan is dated November 2009, it can be concluded that this commitment has not been complied with.	Not considered or actioned
Recommendations against the Offset Strategy			
4.7.1	Drayton Coal should revise the Offset Strategy to include: - commitment of resources for the implementation of offsets. Referencing of appropriate documentation (e.g. the Rehabilitation and Offset Management Plan) will suffice. - a compliance table demonstrating how the offset areas comply with the principles. provided in Appendix 9 of the approval.	There is no additional explanation of resourcing, and is no review of compliance against this Appendix 9, simply a statement that the Strategy complies with it.	Not considered or actioned
Recommendations against the Rehabilitation and Offset Management Plan			
4.8.1	Drayton Coal should revise the ROMP to include: - the short, medium, and long term measures to implement the Offset Strategy. - progressive rehabilitation methodologies for disturbance areas and recently completed mining zones. - access management processes for the Northern Offset Area. - monitoring procedures for the Thomas Mitchell Drive tree screen.	The new Mining Operations Plan (1 July 2015 to 30 June 2020) (Anglo Coal, 2015) will fulfil the requirements for short to long term measures. Table 24 of the new Mining Operations Plan (1 July 2015 to 30 June 2020) (Anglo Coal, 2015) will fulfil these requirements for Northern offset access going forward. Section 4.9.6 provides more information about the management of the Thomas Mitchell Drive tree screen.	Actioned
Recommendations against the Final Void Management Plan			
4.9.1	Drayton Coal should revise the Final Void Management Plan to include: - a justification of the locations and the future use of the final voids. - design criteria and specifications. - justification(s) for the assessment of potential creek/void interactions. - measures to minimise any potential adverse impacts associated with the final voids and to manage and monitor the potential impacts of the final voids over time.	The Mining Operations Plan (1 July 2015 to 30 June 2020) (Anglo Coal, 2015) will fulfil these requirements going forward.	Actioned
Recommendations against the Mine Closure Plan			
4.10.1	Drayton Coal should revise the Mine Closure Plan to include: - mine closure criteria. - investigation results for post mine options. - measures that would be implemented to minimise and manage the on-going. environmental effects.	The previous IEA confirmed that the Mine Closure Plan (Anglo Coal, January 2009) did not comply with this requirement. However going forward, the *Mining Operations Plan* (1 July 2015 to 30 June 2020) (Anglo Coal, 2015) will fulfil these requirements.	Actioned
Recommendations against the AEMRs			
4.11.1	Drayton Coal should ensure that future AEMRs provide the times of all train movements associated with Drayton Coal.	This rail activity data is provided in Appendix H of the AEMRs 2012, 2013 and 2014. However it is noted that the time of each train movement is not provided.	Not considered or actioned
4.13.1	Drayton Coal should ensure that future AEMRs provide: - a comparison to the complaints received in the previous reporting period. It is also. suggested that the type and nature of the complaints be compared to allow for trending and focus for improvement initiatives - an analysis against: - limits/criteria in this approval. - monitoring results from previous years. -predictions in the EA. - trending analysis for all monitoring results. - an improved discussion on identified non-compliances.	AEMRs now include an assessment of complaints against previous periods, and improved discussion of trends, etc. seems to have occurred in the 2012, 2013 and 2014 AEMRs.	Actioned
4.14	Drayton Coal should ensure that the November 2009 audit report is posted on the Drayton Coal website.	This was not available on the Drayton website at the time of the audit.	Not considered or actioned

Recommendations against DA 106-04-00			
5.1.1	Drayton Coal should revise the Environmental Coordinator's position description to include the authority to cease work activities that may cause adverse environmental impact, or require any other reasonable steps to be taken to avoid or minimise unintended or adverse environmental impact.	The previous audit recommended that Drayton Coal should revise the Environmental Coordinator's position description to include the authority to cease work activities that may cause adverse environmental impact, or require any other reasonable steps to be taken to avoid or minimise unintended or adverse environmental impact. This position description has not been updated since prior to the previous IEA.	Not considered or actioned
5.2.1	Drayton Coal should revise the EMS to include a clearer reference to the consent. This would include: providing performance outcomes during operation and decommissioning of the loop and spur improving Table 4 to include reference to the consent; including the environmental management plans applicable to the loop and spur; providing ecological and community objectives for the rail loop and spur; incorporating a strategy for the restoration and management of the areas affected by the rail loop and spur including elements such as wetlands and other habitat areas, creek lines and drainage channels, within the context of those objectives; defining overall objectives and strategies to protect economic productivity within the area affected by the operations.	There is no indication that this has been done.	Not considered or actioned
5.3.1	Drayton Coal should ensure that the internal and/or external reporting of performance objectives is included in the 2013 consolidation of the WMP and Water Management Procedure – Rail.	There is no indication that this has been done.	Not considered or actioned
5.4.1	Drayton Coal should revise the AQMP to include appropriate mechanisms for community consultation.	There is no indication that this has been done.	Not considered or actioned
5.5.1	Drayton Coal should include in the monitoring data report, a section on compliance with Condition 3, Schedule 3 of the approval.	There is no indication that this has been done.	Not considered or actioned
5.6.1	Drayton Coal should revise the Environmental Monitoring Program to include a quality assurance/quality control plan which is suitable for all monitoring undertaken on site.	There is no indication that this has been done.	Not considered or actioned