



HUNTER VALLEY OPERATIONS

INDEPENDENT ENVIRONMENTAL AUDIT REPORT

for
HV Operations Pty Ltd
February 2020

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Prepared by:

HANSEN BAILEY
6/127-129 John Street
SINGLETON NSW 2330

February 2020

for:

HV Operations Pty Ltd
1011 Lemington Road
LEMINGTON NSW 2330

EXECUTIVE SUMMARY

Hansen Bailey was approved by Department of Planning, Industry & Environment (DPIE) to conduct a combined Independent Environmental Audit (IEA) against the conditions of both Project Approval PA 06_0261 (as modified) and DA 450-10-2003 (as modified) for Hunter Valley Operations Pty Ltd at both the Hunter Valley Operations (HVO) North and South sites.

The IEA also assessed compliance with other licences and approvals according each site's specific requirements. The HVO North required compliance with: Environment Protection Licence (EPL) 640 and associated Water Access Licences (WALs). The HVO South required compliance with: EPL 640 and relevant Mining Leases (ML) including ML1634, ML1465, ML1734, ML1753, ML1682, Coal Lease (CL) 398, CL327 and Consolidated Coal Lease (CCL) 714.

The IEA was conducted by Dianne Munro (Exemplar Global Certified Auditor 107622) and Tamie Gray from Hansen Bailey with the field visit component completed between 2 December to 5 December 2019. The following specialists also contributed to the audit: Rehabilitation expert Clayton Richards from MineSoils, air quality specialist Gary Graham from NorthStar Air Quality, acoustics specialist Mark Bridges from Bridges Acoustics, and surface and groundwater specialist Ross Edwards from Hansen Bailey.

The IEA consisted of a detailed desktop review of documentation, both structured and opportunistic interviews with HVO staff and operators and a field inspection of relevant activities and processes. The IEA was conducted generally consistent with the '*Independent Audit Guideline, October 2015*' (Audit Guidelines) (DPIE, 2015).

This audit report has been updated to respond to minor comments from DPIE dated 13 March 2020.

Key actions and recommendations from the previous Independent Environmental Audit completed for HVO North and South in 2016 were reviewed and have generally been completed as described in **Section 4**. There were three items from the previous audit which should be addressed as soon as possible.

This audit identified some non-compliances against conditions of HVO Planning Approvals DA 450-10-2003, PA 06_0261 and other licences and approvals. Non-compliances to be addressed are summarised in **Section 5** and detailed in **Appendix E** of this report. Of the 28 non-compliances identified, one was identified as moderate risk impact. The majority of the remaining were assessed to be administrative in nature (15), with the 12 residual issues categorised as having a low risk of impact.

Recommendations arising from a review of environmental management documentation, the audit site inspections and identified non-compliances is provided in see **Section 7**.

The field inspections on 3 and 4 December 2019 revealed that that housekeeping in and around the workshop, storage areas and CHPP were excellent. The office complex, store and

workshop were in good condition and constructed generally consistent with infrastructure proposed within the relevant approvals and subsequent modifications for each operation.

An inspection of Cheshunt pit and main haul roads showed good air quality management with limited dust generation in windy conditions. An exception was the in-pit Run of Mine storage area at South Pit which requires additional consideration of air quality management.

A comparison of the proposed coal extraction between the Mining Operations Plans and relevant approval documents show that the progression of mining is generally consistent with maximum disturbance limits specified in HVO's Planning Approvals.

Clayton Richards from MineSoils completed a site inspection of the rehabilitated areas at HVO found them to be generally consistent with the Mining Operations Plans. The rehabilitation was found to be significantly impacted by lack of rainfall over recent years. However, the quality of rehabilitation is adequately progressing to post mining targets. However, MineSoils did observe there are some areas which require intervention to bring the rehabilitation back on track to targets, albeit a small percentage of the site, and mainly due to erosion of soil material. The intended post mining land use is considered suitable for the grassland areas to support grazing, with some areas now under grazing leases, indicating the land will be managed as a grazing enterprise whilst being monitored for impacts.

MineSoils was satisfied that reasonable steps have been taken to minimise exposed areas. Temporary rehabilitation was inspected on site which included the use of cover crops, including the use of natives which may well be disturbed again. This temporary rehabilitation is creating valuable soil protection and improvements as well as enhancing a native target species seedbank in the soil. This process is considered to be best practice as it reduces the chances of exotic species and manages the soil in the short term using long term strategies.

There were areas which were identified which require further attention to achieve the required rehabilitation targets which appear to be mainly caused by erosion and soil material. Weed management needs to remain a priority at HVO, especially focusing on Galenia and Rhodes Grass.

Gary Graham from NorthStar Air Quality completed a site inspection to review and confirm locations of relevant monitors, obtain copies of documents and clarify air quality issues. A number of potential exceedances above the relevant criteria in consent to 6 September 2019 however, under HVO's 2014 Air Quality Management Plan Appendix B exceedances are only deemed non-compliant if HVO's contribution was greater than 75% up until to 6 September 2019. One exceedance was confirmed as non-compliant in July 2017. Under the recently approved Air Quality Management Plan (September 2019) the compliance criteria has been updated to now require HVO to report all exceedance to which HVO has contributed within HVO North and Project related contribution exceedances at HVO South from 7 September 2019.

A review of HVO's response to air quality monitor alarms was completed by the auditors and for the examples viewed, found to be managed in accordance with HVO's approved management plans.

Mark Bridges from Bridges Acoustics completed a site inspection of HVO focusing on noise and blasting. Bridges Acoustics deemed HVO's noise monitoring network was appropriate. Six occasions noise monitors exceeded relevant criteria however under HVO's approved Noise Management Plan a second measurement is immediately completed (within 75 minutes) and if within the criteria the measure is deemed compliant. As such, no noise non-compliances were recorded during the audit period. One air blast overpressure exceedance occurred during the audit period, with no exceedances for ground vibration criteria.

The audit team reviewed key documents relating to ecology and offsets at HVO. HVO's offsets include 140 hectares of land within the Goulburn River Offset Area. This area was found to be managed generally in accordance with the Goulburn River Biodiversity Area Management Plan (2017).

The auditors sighted the Carrington Billabong during the site inspection, which is a component of HVO's River Red Gum areas identified within the River Red Gum Rehabilitation Strategy (2010). Ten-year monitoring of the area was completed during the audit period (2017) which concluded that there was a decline in plant diversity and increase in dominance of weed species since the baseline monitoring in 2007. Further assessment and determination of a way forward is proposed and required in this area.

A total of 71 community complaints were received at HVO during the auditing period (2017 to Oct 2019), the majority of which were made in relation to noise, blasting and air quality. A review of these complaints found that these were followed up and addressed with the complainant with the actions taken being reported in the relevant Annual Reviews and recorded in HVO's Community Complaints Register available on HVO's website. Complaints have reduced each year within the audit period: 37 in 2017, 26 in 2018 and eight in 2019 (to end Oct).

A total of 14 reportable incidents occurred during the audit period (Nov 2016-Nov 2019). The incidents were in relation to discharge of sediment laden water into Farrells Creek and Bayswater Creek, exceedance of air and blasting criteria, land clearing and exceedance of OLS requirements. Each was reported in accordance with requirements and follow up was completed where required. HVO was issued with four Penalty Notices (each \$15,000) from the Environment Protection Authority in relation to the water discharges and two Warning Letters from DPIE.

At the time of the audit, HVO staff were aware of many of the identified non-compliances against conditions, licences and approvals and were actively working to address a number of the issues identified in this report.

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LIMITATIONS OF REPORT

In preparing this IEA report, Hansen Bailey has assessed all activities appropriate and necessary to evaluate the environmental status of the site and operations on it. Hansen Bailey has addressed all technical matters which might reasonably be considered to be relevant to such an assessment conducted to standards which apply in NSW.

Based on observations of the site, interviews with appropriate staff and a review of available documentation, it is Hansen Bailey's opinion that the potential critical environmental issues associated with the site and operations are those discussed in this report. However, Hansen Bailey can only advise on the basis of the information available to them and therefore cannot dismiss absolutely the possibility that parts of the site, or adjacent properties, may give rise to additional issues.

The conclusions presented in this report are professional opinions based solely upon Hansen Bailey's visual observations of the site and the immediate site vicinity, and upon Hansen Bailey'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 purposes stated herein, at the site listed, and for the project indicated.

Opinions presented in this report apply to the site's conditions and features as they existed at the time of Hansen Bailey's site visit from 2 December – 5 December 2019, and those reasonably foreseeable. They necessarily cannot apply to conditions and features which Hansen Bailey is unaware of and has not had the opportunity to evaluate.

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.

**HUNTER VALLEY OPERATIONS
INDEPENDENT ENVIRONMENTAL AUDIT
for
Hunter Valley Operations Pty Ltd**

1 INTRODUCTION

1.1 BACKGROUND

Hansen Bailey was commissioned by Hunter Valley Operations Pty Ltd (HVO) to conduct a combined Independent Environmental Audit (IEA) against Project Approval (PA) 06_0261 (as modified) and DA 450-10-2003 (as modified) for both Hunter Valley Operations for North and South sites, respectively. HVO is a jointly managed operation through a Joint Venture between Glencore (49%) and Yancoal (51%).

The original supporting documentation for HVO North DA 450-10-2003 is the environmental assessment titled *West Pit Extension and Minor Modifications* dated October 2003. Seven modifications have been granted to DA 450-10-2003 with key components outlined in **Section 2.1.1**.

The original supporting documentation for HVO South PA 06_0261 is the environmental assessment titled *Environmental Assessment Report*, dated January 2008. Five modifications have been granted to PA 06_0261 with key components outlined in **Section 2.1.2**.

The timeframe that this report applies to is from 1 November 2016 to 1 December 2019 (auditing period). The IEA was conducted by Dianne Munro (DM) (Lead Auditor – Exemplar Global Certified Auditor 107622), and Tamie Gray (TG) (Auditor) from Hansen Bailey.

Rehabilitation expert Clayton Richards from MineSoils, water expert Ross Edwards from Hansen Bailey, air quality specialist Gary Graham from Northstar Air Quality and noise expert Mark Bridges from Bridges Acoustics audited the performance of HVO operations in relation to their specialist areas.

Correspondence from DPIE dated 17 July 2019 allowed HVO to conduct a combined IEA including both HVO North and HVO South and allowed for an extension to the date of commissioning the IEA under Schedule 5, Condition 5 of HVO South (PA 06_0261) until 1 December 2019 (see **Appendix A**).

The auditing team was approved by the Department of Planning, Industry and Environment (DPIE) on 27 September 2019 (see **Appendix A**).

This audit report has been updated to respond to minor comments from DPIE dated 13 March 2020 and included in **Appendix A**.

The IEA consisted of a detailed desktop review of documentation and scheduled and opportunistic interviews with a significant number of available staff and contractors including:

- Andrew Speechly (AS) – Environment & Community Manager;
- Dominic Brown (DB) – Environment & Community Coordinator;
- Robert Carter (RC) – Environment & Community Coordinator;
- Drew Williams (DW) – Environment & Community Officer;
- Peter Bowman (PB) – Environment & Community Officer;
- Merri Bartlett (MB) – Environment & Community Officer;
- Kate Woodward (KW) – Tenements and Compliance Coordinator;
- Graham Nash (GN) – CHPP Superintendent / Acting Manager;
- Jacques Rossouw (JR) – Maintenance Superintendent;
- John Cass (JC) – Systems Coordinator;
- Bruce Gould (BG) – Production Manager;
- Shaun Leary (SL) – Technical Services Manager;
- Dan Hayes (DH) – Senior Mining Engineer;
- Shane Gundy (SG) – Marathon Tyres Supervisor; and
- Michael Mirisch (MM) – Project Manager (Project Assist).

A field inspection of the mining area and other infrastructure areas was undertaken generally in accordance with '*ISO 14010 – Guidelines and General Principles for Environmental Auditing*', and '*ISO 14011 – Procedures for Environmental Auditing*'.

The field inspection was conducted between 3 – 4 December 2019 by Hansen Bailey and the rehabilitation, air and noise specialists. Photos from the field inspection are shown in **Appendix B**.

The climate of the region surrounding HVO is classed as temperate and is characterised by hot summers and mild dry winters (2018 Annual Review). Cumulative rainfall prior to the site visit was at 336 mm to date for 2019 which is significantly lower than 2018 and 2017 (approximately 100mm less) (November 2019 HVO Monthly EMR). During the site inspection, HVO was experiencing very dry conditions and high levels of wind. No rainfall occurred during the audit site visit, with 15.8mm rainfall recorded in November 2019.

An Opening and Closing Meeting was held at site with the Senior Management Team (SMT) and Environmental staff in attendance. A significant number of HVO employees attended the closeout meeting. The Audit Itinerary is presented in **Appendix C**.

1.2 REPORT STRUCTURE

Section 1 provides an introduction, background, describes the audit timeframes and provides a guide to the structure of the report;

Section 2 describes approved operations detailed relevant approvals and modification documents which support PA 06_0261 and DA 450-10-2003 and provides a site description and layout of HVO;

Section 3 outlines audit requirements and applicable auditing guidelines;

Section 4 summarises recommendations made during the previous IEA (2016);

Section 5 outlines the identified non-compliances and the status against PA 06_0261 and DA 450-10-2003 and its supporting documents, modifications and other licences and approvals including a risk assessment in accordance with the '*Independent Audit Guideline, October 2015*' (Audit Guidelines) (DPIE, 2015);

Section 6 lists required management plans, programs and strategies; and

Section 7 summarises key recommendations from the IEA.

2 SITE DESCRIPTION

2.1 APPROVED OPERATIONS

HVO is located in the Upper Hunter Valley between Singleton and Muswellbrook, approximately 24 kilometres (km) north west of Singleton in the Singleton Local Government Area (LGA). The Hunter River geographically divides HVO into HVO North and HVO South; however, they are integrated operationally with personnel, equipment and materials as required.

HVO North comprises the West, Carrington and North Pits and the mined out Alluvial Lands. In addition, three coal preparation plants are located in HVO North; HVCPP, Newdell Coal Preparation Plant NCPP and Howick Coal Preparation Plant. There are two train load out areas; HVLP and Newdell Load Point. Figure 1 provides the approved Project Layout Plan as per Appendix 2A of DA 450-10-2003.

HVO South comprises the Cheshunt, Riverview and Lemington Pits and the Lemington Coal Preparation Plant. **Figure 2** provides the approved Project Layout Plan as per Appendix 2 of PA 06_0261.

2.1.1 HVO North

HVO North primarily operates in accordance with DA 450-10-2003 (as modified) under the *Environmental Planning and Assessment Act 1979* (EP&A Act) valid to 12 June 2025.

DA 450-10-2003 was granted on 12 June 2004 and facilitated the consolidation of 18 historical approvals for the activities undertaken at HVO North and also allowed for the following activities:

- Continuing production at West Pit at the rate of up to 12 Million tonnes per annum (Mtpa) Run of Mine (ROM) coal;
- Increasing the approved capacity of the Hunter Valley Coal Preparation Plant (HVCPP) from 13 Million tonnes per annum (Mtpa) to 20 Mtpa ROM coal;
- Increasing approved coal haulage from mining areas south of the Hunter River to HVCPP from 8 to 16 Mtpa ROM coal;
- Moving coal and coal rejects between mining areas and facilities of HVO, including mining areas and facilities located south of the Hunter River;
- Upgrading the Belt Line Conveyor which transfers coal from the HVCPP to the Hunter Valley Load Point (HVLP) along the Belt Line Road;
- Increasing approved production capacity of the Carrington Pit from 6 to 10 Mtpa;
- Constructing a conveyor between the HVLP and the Newdell Loading Point;
- Hauling coal, on an intermittent basis, from the HVLP and Newdell Loading Point to the Ravensworth Coal Terminal;

- Hauling coal, on an intermittent basis, from the HVCPP to the HVLP along a private haul road; and
- Constructing temporary crossings of the Hunter River to allow the relocation of heavy mining equipment.

DA 450-10-2003 has been modified on seven occasions as described below.

Modification 1 – s96(1A) modification of West Pit Extension

Modification (MOD)1 was granted on 16 August 2005 and allowed for the following:

- Upgrade of Hunter Valley Loading Point.

Modification 2 – Carrington West Wing Extension

MOD2 was granted on 25 June 2006 and allowed for the following:

- Extension of the existing Carrington Pit further to the south and east to extract approximately 19 Mt of coal;
- Constructing 2 levee banks, a groundwater barrier wall, a drainage line diversion to the west, and a temporary services corridor to the south of the extension area; and
- Rehabilitating of the site.

Modification 3 – Extension of Carrington Pit

MOD3 was granted on 19 March 2013 which allowed for the following:

- Extend the approved footprint of the Carrington evaporative sink, for long term groundwater management purposes;
- Realignment of the previously assessed impermeable groundwater barrier for the western paleochannel further south, to prevent groundwater migration from the Hunter River into the mine, and migration of water from the mine into the Hunter River alluvium;
- Inclusion of a two-stage temporary levee and diversion system to ensure the extension area is protected from flooding, and to enable the temporary diversion of an unnamed tributary of the Hunter River that presently runs in a southerly direction across the extension area; and
- Construction of a service corridor along the southern boundary of the extension area, which may incorporate water pipelines, an all-weather access road and other services.

Modification 4 – Fine Reject Emplacement

MOD4 was granted on 16 January 2014 which allowed for the following:

- Construction and operation of a fine reject emplacement to the north of the existing Carrington Pit;
- Fine reject emplacement in the Cumnock void 3, located to the north-east of the West Pit; and

- Extension of the consent boundary to accommodate Cumnock void 3 and the proposed pipeline that would connect Howick and/or Hunter Valley CHPPs to the void.

Modification 5 – Sediment Basin and Communication Towers

MOD5 was granted on 9 December 2016 and allowed for the following:

- An upgrade of a sediment basin at the HVLP which would necessitate the removal of a small area (0.14 ha) of overstorey native Swamp Oak vegetation to accommodate infrastructure, and
- Approval of communication towers to remove the administrative burden associated with the need to recertify the towers every five years as complying development under the Mining SEPP.

Modification 6 – Carrington In Pit Fine Reject Emplacement

MOD6 was granted on 25 January 2017 and allowed for the emplacement of fine rejects in the approved void within Carrington Pit, which would replace the approved emplacement of overburden in the void. (Change in material type to be emplaced in the Carrington Pit void).

Modification 7 – Administrative

MOD7 was granted on 28 July 2017 and allowed for an administrative change to include land parcels which were either subject to environmental assessment with the approved Carrington West Wing mining area or were existing activities that were consolidated with the 2004 approval for HVO North into the Schedule of Lands of the existing development consent.

2.1.2 HVO South

HVO South primarily operates in accordance with PA 06_0261 (as modified) under the *Environmental Planning and Assessment Act 1979* (EP&A Act valid to 24 March 2030).

PA 06_0261 was granted on 24 March 2009 and facilitated the consolidation of 25 historical consents and 10 associated modifications for the activities undertaken at HVO South and also allowed for the following activities:

- Ongoing open cut and highwall mining of coal reserves as previously approved and the extension of open cut and highwall mining (increasing the previously approved mining surface disturbance footprint by 250 ha and mining of all coal seams within HVO South to unlimited depth);
- Mining of up to 16 Mtpa ROM coal by a combination of draglines, shovels, excavators and associated haul trucks;
- Integration of operations allowing for operational efficiencies and improved economies of scale. These relate to mining and processing rates, equipment use and relocation, rejects and tailings disposal and coal handling;
- Modification, upgrades and / or reconstruction of existing infrastructure including increase of processing capacity of the Lemington Coal Preparation Plant to 16 Mtpa and relocation of Comleroi Road and other infrastructure across HVO South;
- Construction of new coal loading infrastructure to facilitate transfer of product coal to the Wambo rail spur;
- Transportation of product coal to the Wambo rail spur via either a rail loop, conveyor or trucks; and
- Relocation or reconfiguration of the Hunter Valley Gliding Club (HVGC) airstrip and facilities (if agreed with the Club), to accommodate the integration of the Riverview Pit with South Lemington Pit 2.

Modification 1

MOD7 was granted on 17 December 2009 and allowed for the following:

- Increased the storage capacity of Lake Hames from 330 ML to 730 ML;
- Increased the approved maximum discharge rate for Lake James from 120ML/day to 200ML/day;
- Amended the HVO South approval boundary to incorporate the entire footprint of Lake James Dam (Lake James) and associated infrastructure; and
- Minor administrative changes.

Modification 2

MOD7 was granted on 3 February 2012 and allowed for the relocation of remnant woodland vegetation and native enhancement areas (140ha) of the Archerfield property to an alternative site within the Goulbourn River Biodiversity Area.

The Archerfield property was provided as a “Biodiversity Enhancement Area” for the life of the development, to offset impacts caused by the clearing of native remnants (48 ha) and regrowth (92 ha) vegetation.

Modification 3 – Administrative Omissions and Clarifications

MOD7 was granted on 31 October 2012 and allowed for the following:

- Addition of a reference to MOD 2 to Sch 2 Cond 2;
- Addition of a condition requiring the alternate offset or nomination of the land to be used for such alternate offset following MOD2; and
- Update to Appendix 3 (Statement of Commitments) to reflect the changes from MOD 2.

Modification 4 – Dedication of Lands for Offsets

MOD7 was granted on 22 August 2016 and allowed for the originally approved heavy vehicle access routes to relocate heavy equipment including draglines, trucks and shovels across Jerrys Plains Road both to and from Mount Thorley Warkworth mine and clarification that no mining related development would occur in the biodiversity offset areas (established for the Warkworth Extension Project that sit within the HVO leases).

Modification 5 – Progression of Mining

MOD7 was granted on 28 February 2018 and allowed for the following:

- Enable the Chestnut Pit to continue mining through the Riverview Pit, extracting the deeper Bayswater seam below the Vaux seam; and
- Allow for mining down to the Vaux seam below the Bowfield seam in South Lemington Pit 2.



Figure 2
HVO South PA 06_0261 Project Layout
(Source: Appendix 2, PA 06_0261)

2.2 OTHER APPROVALS AND LICENCES

HVO operates in accordance with a combined EPL 640 under the Protection of the Environment Operations Act 1997 (POEO Act).

Key MLs considered in this IEA include: ML1634, ML1465, ML1734, ML1753, ML1682, CL398, CL327 and CCL714.

2.3 AUDIT PERIOD SUMMARY OF OPERATIONS

2.3.1 Construction

North Site

During the audit period the administration office was extended and a parent's room at HVO main administration building was constructed.

South Site

No construction activities have occurred within the audit period.

2.3.2 Demolition

North Site

During August 2019 to date the Newdell CPP was demolished with demolition work due to be complete the end of December 2019 with minor works to follow in February relating to the relative substation.

South Site

No demolition works have occurred within the audit period.

2.3.3 Mining

North Site

During 2016 to present mining operations continued in the West Pit by dragline extending south-eastwards toward the haul road. Mining in the Carrington Pit by truck and shovel method has now ceased with the placement of fine rejects beginning as described in the current MOP.

South Site

The main sections of Cheshunt Pit progressed to the south-west towards Riverview Pit. Mining is currently focussed in the Cheshunt and Riverview Pits. Strips within Cheshunt Pit have already reached the approved Bayswater seam with other parts of Cheshunt Pit yet to reach the approved Bayswater seam with the northern section well advanced of its southern section as per the currently approved mine design.

Mining of the western portion of Riverview Pit is progressing to the north and south. Mining is also occurring in the satellite pit in the south-eastern corner of the Riverview Pit. There is no active mining in either of the South Lemington Pits.

3 AUDIT REQUIREMENTS

3.1 PLANNING APPROVALS

This assessment and subsequent report have been compiled pursuant to Schedule 5 Condition 10 of DA 450-10-2003 (MOD7) and Schedule 5 Condition 5 of PA 06_0261 (MOD5).

Each requirement is listed for the respective conditions is in **Table 1** and **Table 2** along with where each is addressed in this report.

Table 1
DA 450-10-2003 Audit Requirements

Description	Where Addressed
Prior to 1 December 2019, and every three years thereafter, unless the Secretary directs otherwise, the Applicant must commission, commence and pay the full cost of an Independent Environmental Audit of the development. This audit must:	This IEA
(a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;	Appendix D
(b) include consultation with the relevant agencies and the CCC;	Section 3.3
(c) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent and any relevant EPL and/or Water Licences (including any assessment, plan or program required under these approvals)	Section 5
(d) review the adequacy of strategies, plans or programs required under the abovementioned approvals;	Section 6
(e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals; and	Section 7
(f) be conducted and reported to the satisfaction of the Secretary.	N/A
Note: <ul style="list-style-type: none"> <i>This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Secretary.</i> 	Appendix D

Table 2
PA 06_0261 Audit Requirements

Description	Where Addressed
By 31 March 2010, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent must commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:	This IEA
(a) be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been endorsed by the Secretary;	Appendix D
(b) include consultation with the relevant agencies;	Section 3.3
(c) assess the environmental performance of the project and whether it is complying with the relevant requirements in this approval and any relevant mining lease and EPL (including any strategy, plan or program required under these approvals);	Section 5
(d) review the adequacy of strategies, plans and/or programs required under these approvals;	Section 6
(e) recommend appropriate measures or actions to improve the environmental performance of the project, and/or any strategy, plan or program required under these approvals; and	Section 7
(f) be conducted and reported to the satisfaction of the Secretary.	N/A
<p>Note:</p> <ul style="list-style-type: none"> <i>This audit team should be led by a suitably qualified auditor, and include experts in the field of noise and air quality, surface water and groundwater and mine rehabilitation.</i> 	Appendix D

3.2 AUDIT GUIDELINES

This audit report has also been prepared generally in accordance with the '*Independent Audit Guideline, October 2015*' (Audit Guidelines) (DP&E, 2015). **Table 3** lists key requirements from the Audit Guidelines, the relevant Section of the Guidelines which references the requirement and indicates where each is addressed in this report.

Table 4 reproduces the "risk levels" from Section 4.1 of the Audit Guidelines which were attributed to the non-compliances identified during the audit period as described in **Section 5**.

Table 3
Audit Guidelines Requirements

Section	Description	Where Addressed
2	Assess the operator's compliance with the requirements of regulatory approvals, including (as applicable): <ul style="list-style-type: none"> • Development Consent; • Environment Protection Licence; • Mining Lease; and • Water licences and approvals. 	Section 5 & Appendix E
2, 3	The scope of the audit and the audit team (including any technical specialists) to be determined by the lead regulator.	Section 1.1
3.3	The auditor team must be independent of the development being audited and audit findings must be based on verifiable evidence.	Section 5 & Appendix D
4.1	The compliance status of each requirement or commitment should be assessed in accordance with the compliance assessment criteria and risk levels in the audit guidelines.	Section 5
4.2	Consultation with key regulatory agencies prior to commencement of the audit site inspection.	Section 3.3
5.1	The audit outcomes to be documented in a thorough, accessible and accurate audit report that is written in a neutral tone reflecting facts gathered by the audit team.	This IEA Report
5.1	The audit report should include the following sections: <ul style="list-style-type: none"> • Introduction, providing a brief overview of the development, audit scope and objectives; • Methodology, describing the audit team, methodology applied, document reviews, site inspections and interviews; • Audit findings, including documentation of consultation, response to actions from the previous audit, assessment of compliance status against the conditions and commitments in relevant documents and a discussion of environmental incidents and performance; and • Recommendations, identifying any opportunities for improvement identified in the audit. 	This IEA Report
5.2	Audit reports submitted to the lead regulator must be certified by the lead auditor on an attached 'Independent Audit Submission Form'.	Appendix D
5.3	Copies of the final audit report to be distributed to regulatory agencies within two weeks of finalisation and placed on the development's website.	HVO Responsibility
6	The operator of the development to respond to the lead regulator responding to the audit findings and recommendations with an action plan within four weeks of receiving the final audit report.	HVO Responsibility

Table 4
Audit Guidelines 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: <ul style="list-style-type: none"> • potential for serious environmental consequences, but is unlikely to occur; or • potential for moderate environmental consequences, but is likely to occur
Low		Non-compliance with: <ul style="list-style-type: none"> • potential for moderate environmental consequences, but is unlikely to occur; or • potential for low environmental consequences, but is likely to occur
Administrative		Only to be applied where the non-compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions)

3.3 AGENCY CONSULTATION

During the preparation for this IEA, input was sought from regulatory agencies to confirm any areas of compliance or environmental management at HVO that should be a particular focus.

The following agencies were approached directly by Hansen Bailey for input as part of the scoping phase of this IEA (See **Appendix A**):

- Department of Planning, Industry and Environment (DPIE);
- DPIE Resources Regulator;
- Environment and Protection Authority (EPA);
- Natural Resources Access Regulator (NRAR);
- HVO Community Consultative Committee (CCC); and
- Singleton Shire Council (SSC).

Where issues were raised during consultation, these are listed in **Table 5** and where each has been addressed. The CCC and EPA did not have any specific concerns.

Table 5
Agency Requirements and Where Addressed

Ref	Key Requirement	Where addressed
DPIE		
1.	Review timelines and adequacy of responses to dust alarms (and recording of responses)	Appendix E PA 06_0261 Sch 3 Cond 22
2.	Blast monitoring protocols and appropriate siting of blast monitors	Appendix E PA 06_0261 Ap4 A.4
3.	Management of dirty (sediment laden) water and mine water	Appendix E PA 06_0261 Sch 3 Cond 55 DA 450-10-2003 Sch 3 Cond 20 & 62A
SSC		
4.	Ensure audit includes evidence to support compliance status with conditions of approval that require consultation with SSC	Appendix E Relevant conditions
5.	How HVO North has progressed working with SSC and Muswellbrook Shire Council to investigate the minimisation of adverse socio-economic effects of a significant reduction in local employment levels and closure of the development at the end of its life.	Appendix E DA 450-10-2003 Sch 3 Cond 63
6.	Ensure consideration of the socio-economic effects have been included in the approved Rehabilitation Management Plan (as per Schedule 3, Condition 62 of DA 450-10-2003)	Appendix E DA 450-10-2003 Sch 3 Cond 62
NRAR		
7.	Cover all conditions associated with the Conditions of Approval, including management plans, mine operation plans and requirements associated with site Water Access Licences and site water management systems	Appendix E
Resources Regulator		
8.	Verify that there is a current Mining Operations Plan (MOP) in place and it has been approved by the Regulator – review compliance against any conditions of approval of the MOP.	Appendix E PA 06_0261 Sch 3 Cond 36 DA 450-10-2003 Sch 3 Cond 62C
9.	Verify that the MOP is compatibility with the description of operations contained in the planning approval. In particular: <ul style="list-style-type: none"> Review the rehabilitation strategy as outlined in the MOP to determine if it is consistent with the Project Approval in terms of progressive rehabilitation schedule; and proposed final land use(s) Review the rehabilitation objectives and completion criteria as outlined in the MOP to determine if they have been developed in accordance with the proposed final land use(s) as outlined in the Project Approval. 	Appendix E PA 06_0261 Sch 3 Cond 34 &35 DA 450-10-2003 Sch 3 Cond 62B

Ref	Key Requirement	Where addressed
10.	Confirm that mining operations are being conducted in accordance with the approved MOP (production, mining sequence etc.), including within the designated MOP approval boundary – to be verified by site plans and site inspection.	Appendix E PA 06_0261 Sch 2 Cond 2 DA 450-10-2003 Sch 2 Cond 2
11.	Based on a visual inspection, determine if there are any rehabilitation areas that appear to have failed or that have incurred an issue that may result in a delay in achieving the successful rehabilitation	Appendix E PA 06_0261 Sch 3 Cond 34 -35 DA 450-10-2003 Sch 3 Cond 62-62B
12.	Are there controls to ensure soil resources are appropriate to achieve nominated final land uses? For example, is there sufficient soil quantity to achieve a specified final land use outcome?	Appendix E PA 06_0261 Sch 3 Cond 34 -35 DA 450-10-2003 Sch 3 Cond 62A-B
HVO CCC		
13.	No comments	N/A
EPA		
14.	No comments	N/A

4 PREVIOUS AUDIT RECOMMENDATIONS AND STATUS

The key recommendations from the 2016 compliance audit and the status of each at the time of this IEA are summarised in **Table 6**.

Table 6
Status of 2016 Audit Recommendations

Ref	Condition	Recommendation	Status	Evidence
HVO South PA 06_0261				
1.	PA3.8	Review location of Archerfield Vibration monitor.	Compliant	Archerfield homestead is represented by the closest monitor (Maison Dieu). Section 4.2.2 of the Blast Management Plan identifies which that there is no foreseeable blasting risk at this location. See response to Appendix E PA 06_0261 Ap4A.4 regarding review of location of Maison Dieu monitor and its acceptability.
2.	PA3.18	Review road closure plan to make sure it is correct and current.	Compliant	See response to Appendix E PA 06_0261 Sch 3 Cond 18. Viewed Road Closure Plan (Appendix C of Blast MP) Viewed Golden Highway Road Closure (RC) MP which was approved 7/1/19. Viewed Lemington RC MP 1 July to 30 June 2019. Viewed revised road closure plans that have been included in the latest version of the Blast MP which is currently with DPIE for approval.
3.	PA3.27	Review Appendix headings against references in Table 1 of the HVO WMP, i.e. Sch. 3 Cond. 27(c) (on page 12, last row) references Appendix D – Groundwater Monitoring Programme, where it should reference Appendix C – Surface Water Monitoring Programme.	Compliant	Viewed updated WMP (2018) which has corrected the error and now lists the correct Appendix C reference.
4.	PA3.31	Clarification should be sought to ensure protections are to the satisfaction of the Director-General.	Compliant	See response to Appendix E PA 06_0261 Sch 3 Cond 30 and 31.

Ref	Condition	Recommendation	Status	Evidence
5.	PA3.34	Observation was made that areas shown in the MOP as pasture were sown with a native woodland mix. Opportunity exists to clarify and make consistent the proposed rehabilitated vegetation types across all plans.	Compliant	HVO's response did not specify a specific action. The conceptual final landscape plan presented in Appendix 6 of PA 06-0261 has been used to guide the revegetation layout presented in the MOP plans however inconsistencies will exist due to MOP final landform variations. Where there are inconsistencies, the MOP secondary domains will be the overriding consideration to determine the seed mix to be used. Note that the seed mixes used in HVO pasture areas may contain tree and shrub as per email provided by HVO on 22/1/20.
6.	PA3.40	Consider whether the current inspection regime is sufficiently meeting the intent of the ACHMP and this condition and seek clarification from DPE as to the adequacy of same.	Compliant	Refer to Appendix E PA 06_0261 Sch 3 Cond 40.
7.	PA3.50	As there have been complaints during the reporting period, combined with the auditor's observation in the field, it would be advisable to review the Australian Standard <i>AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting</i> to ensure all practicable measures to mitigate off-site lighting impacts are implemented.	Compliant	See response to Appendix E PA 06_0261 Sch 3 Cond 50.
8.	PA3.52	Follow-up is recommended to confirm formal feedback from DP&I once the MOD is updated.	Compliant	Recommendation for MOD 5. Following approval of MOD 5 the Visual Mitigation Report (2010) identified two receptors requiring mitigation. These properties are both owned by HVO.

Ref	Condition	Recommendation	Status	Evidence
9.	PA3.57	Confirm with DP&I the current status of approval with regard to disposal of heavy earthmoving tyres. Confirm EPA expectations and/or approach to disposal of used tyres in mine voids. Consider need for inclusion of waste tyres in the EPL.	Compliant	AS advised that HVO has legal advice which confirms that as an inert material, HVO does not require waste tyres to be included as 'waste' in the EPL. The current EPL does not include a 'waste' section. No confirmation with DPIE or EPA has occurred as recommended in the previous IEA. Onsite management of waste tyres discussed during onsite component of audit with SG (see discussion at condition 3.57). HVO advises that as part of the EPL 5yr licence review (which is currently in progress with the EPA), it is seeking licence condition to formalise approval of disposal of heavy earth moving tyres in a non-polluting manner within the waste emplacements across HVO.
10.	PA3.58	Communicate appropriate storage and segregation rules for dangerous goods to maintenance teams, particularly with respect to segregation of incompatible Dangerous Goods i.e. Class 2 and Class 3.	Compliant	HVO identified that communication of this nature was ongoing as part of the former monthly Enviro toolbox talks. And will form part of the ongoing training day sessions under new ownership process. Recommend including this as part of waste section of environmental training matrix.
11.	PA3.60	The Bushfire Management Plan on the HVO website is dated June 2007. It is recommended the current plan is added to the website.	Compliant	Bushfire MP was updated 20/10/17 and is currently available on the HVO website.
12.	PA4.4	Consideration should be given to addressing wording in consent when updating the DA to reflect an appropriate timeframe for reporting.	Compliant	Timeframe was amended in the MOD 5 approval.
13.	PA4.5	Obtain notification from the DG that the Independent Review demonstrates compliance with noise criteria and that the review may be discontinued.	Compliant	Refer to Appendix E PA 06_0261 Sch 4 Cond 4. Viewed letter from the DPIE 10/1/19 which stated HVO were required an independent reviewer

Ref	Condition	Recommendation	Status	Evidence
14.	PA5.4A	Review performance of system introduced in March 2016. If the review indicates this condition is not being met, revise as appropriate.	Compliant	Due to several ownership changes over the audit period, this Management Plan Review Register system reviewed in the 2016 audit has become redundant. It is now replaced with CMO, which involves a recurring action to check on a monthly basis if the condition has triggered a review and revision. During 2019 IEA, viewed screen shot of recurring action from CMO system to demonstrate the process.
15.	PA5.8	Add to CCC minutes a statement that committee meets EPA (sic) guidelines.	Compliant	Recommendation not accepted by HVO. The EPA guidelines have been replaced with the <i>Departments Community Consultative Committee Guidelines: State Significant Projects</i> as per Sch 5 Cond 8.
PA 06_0261 Statement of Commitments				
16.	SOC Ref 7	Consider updating the BMP to address the specific requirements of this commitment.	Compliant	See response to Appendix E PA 06_0261 SOC Ref 7.
17.	SOC Ref 11	Collect River Red Gum seed from existing stands.	Not Compliant	Although seed was collected in 2007, none has occurred in the audit period (DB pers comms) as required in Section 2.5 of the River Redgum Strategy. It was not able to be confirmed that the plantings completed in the audit period were generated from seed from the site or other nearby similar stands of River Redgums (Section 2.5 of the River Redgum Strategy). Refer to Appendix EPA 06_0261 SOC Ref 11.
18.	SOC Ref 19	Identify opportunities to monitor vegetation within the Project Application area but outside the proposed disturbance area. Incorporate more log re-use in rehabilitation areas for habitat creation and enhancement for common and threatened species.	Compliant	See response to Appendix E PA 06_0261 SOC Ref 19.

Ref	Condition	Recommendation	Status	Evidence
DA 450-10-2003				
19.	DA3.6	Confirm relevance of the commitments made in the Monitoring Program and implement monitoring of PM2.5 if deemed necessary.	Compliant	Confirmation of this requirement was made during a meeting with DPIE on 14/09/2017. Viewed email of meeting notes. AQMP has been updated to include this requirement. HVO EPL 640 does not include any requirements around PM2.5 as discussed in the approved AQMP Section 2.3.
20.	DA3.9	Continue to manage noise attenuation via campaign use of haul truck and/or upgrade fleet to meet improved operation noise attenuation. Finalise options for coordination of noise management with adjoining Wambo mine and update NMP accordingly.	Compliant	See response to Appendix E DA 450-10-2003 Sch 3 Cond 9.
21.	DA3.16B	It is recommended that the intent of the condition is confirmed with Director-General with consideration given to modification of the wording of the condition.	Compliant	The condition DA 450-10-2003 Sch 3 Cond 16B has been updated in the last Modification to be consistent.
22.	DA3.35	Provide details regarding relocation of bat roosts or salvaging habitat resources.	Compliant	See response to Appendix E DA 450-10-2003 Sch 3 Cond 35.
23.	DA3.54	Review the relevance for requirement for any further tree planting and bund, and report findings to DRE and DG.	Not Compliant	Verbal discussions with DPIE has occurred in relation to this recommendation. The properties which would benefit from the screening are now mine-owned and as such we suggest further planting is not required as it would not create the benefits for which it was originally recommended. Recommend further consultation and correspondence sought with DPIE over relevance of a visual screen from Lemington Road. Refer to Appendix E DA 450-10-2003 Sch 3 Cond 54 for further discussion over relevance of condition.

Ref	Condition	Recommendation	Status	Evidence
24.	DA3.56	Review the Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting to ensure all practicable measures to mitigate off-site lighting impacts are implemented.	Compliant	As per Ref 7 above.
25.	DA3.62	Create and include detailed metric completion criteria.	Compliant	No action was identified for this recommendation in HVO's Response as performance criteria was detailed in the Agricultural Land Reinstatement Management Plan. However, this management plan has since been outdated and is now included within the MOP. Table 20 to 24 with the North MOP include detailed completion criteria for HVO North.
26.	DA5.2	Once the revised EMS is approved by the DG, issue copies to Council and the CCC.	Compliant	Requirement to provide the EMS to council and CCC was removed from consent in MOD 5 approved in December 2016. HVO's approved EMS is publicly available on the website.
27.	DA5.3	Recommend rewording of condition to reflect requirement to update Monitoring Program.	Compliant	No action taken as HVO sought to remove this condition at the next modification. Condition no longer present in the current modified consent.
DA 450-10-2003 Statement of Commitments				
28.	Groundwater	Consider updating the WMP to address the specific requirements of this commitment. Correct the title of Table 8 in future version	Compliant	Commitment in relation to once works begin on the Carrington West Wing extension area. This has not triggered during the audit period. See response to Appendix E DA 450-10-2003 Sch 3 Cond 19
29.	DA SOC Ref 22	Complete annual visual assessments	Not Compliant	See response to Appendix E DA 450-10-2003 Ref 22.
30.	DA SOC Ref 30	Future monitoring to ensure access to all required stands is available well in advance.	Compliant	The five-year monitoring event of the Carrington Billabong was due to be undertaken in 2012 however was delayed until 2013 due to access to Carrington Billabong with a landowner. The 10-year monitoring event was completed in 2018 did not note any access issues.

Ref	Condition	Recommendation	Status	Evidence
EPL 640				
31.	A1.1	Ensure that records of volume of crushed aggregate are maintained.	Compliant	HVO response to the recommendation in 2016 was that HVO currently collects and maintains this information and will ensure it is available for the next IEA. HVO responded to this IEA that there is no regulatory requirement to maintain these records and as such, they are not maintained. A review of MOD5 EA does not appear to include a limit on gravel crushing. As EPL permits "Crushing, grinding or separating > 2000000 T annual processing capacity", recommend the keeping of records would not be required.
32.	L2.4	Clarification should be obtained as to whether conductivity should be reported for Point 8 (EPL Annual Return reporting requirements).	Compliant	EC is reported in the Annual Returns for point 8 as required by the Annual return template provided by the EPA.
33.	L4.2	L4.2 (Airblast Pressure) requires further action.	Compliant	HVO did not propose any actions. Refer to Appendix E PA 06_0261 Sch 3 Cond 7 relating to the two exceedances during the audit period for both HVO South and North. This has reduced from the 2016 IEA where multiple exceedances occurred.
34.	M2.2	Clarification should be obtained as to the definition of continuous monitoring and period of time permissible for outage.	Compliant	Clarification was provided to HVO at the time verbally from the EPA Officer who advised HVO to refer to the guidance note for continuous emission monitoring on the EPA's Website (per comms. DB).
35.	M2.3	Clarification should be obtained as to whether a conductivity reporting limit needs to be established for Point 8.	Compliant	Not accepted by HVO. Refer to response to Ref 32 above.
36.	R2.2	Maintain records of process for incident reporting. Keep a record of initial phone call notification and following up email.	Compliant	See response to Appendix E PA 06_0261 Sch 5 Cond 2 and DA 450-10-2003 Sch 5 Cond 7.
37.	U1.1	Obtain confirmation from the NSW EPA as to next steps required to close out this requirement.	Compliant	Noise PRP to which this condition referred to which was at the time. The EPA has now removed this requirement until such time it is able to determine compliance with noise limits.

5 NON-COMPLIANCES AGAINST APPROVALS AND LICENCES

This section provides a discussion on the identified non-compliances and status against DA 450-10-2003 (MOD7) and PA 06_0261 (MOD5) and other licences approvals available for review at the time of the IEA.

Table A and B of **Appendix E** provides a complete tabulated list of conditions of DA 450-10-2003 (MOD7) and PA 06_0261 (MOD5) with the compliance status and comments against each. Table C in **Appendix E** provides a list of the other licences and approvals assessed as part of this IEA, with the compliance status and comments against each.

A summary of the non-compliances against each document is summarised in **Table 7**. Recommendations arising from the non-compliances are included in **Section 7**.

Table 7
Non-Compliances Identified

Ref	Non-Compliance	Risk
HVO South – PA 06_0261 (MOD5)		
Sch 2 Cond 2a	Some non-compliances were identified with the conditions of this approval.	Administrative
Sch 2 Cond 15	Sch 3 Cond 60 no evidence of correspondence with Singleton Council or NSW RFS in relation to consultation on the Bushfire Management Plan has been provided.	Administrative
Sch 3 Cond 7	Measured overpressure levels exceeded the 120 dBL criterion at two locations (Moses Crossing, Jerrys Plains) on 17 January 2018.	Low
Sch 3 Cond 10	One blast on Easter Saturday 2017 (which was officially considered a public holiday in 2017).	Administrative
Sch 3 Cond 19	The measurement on 29/07/17 at the Gliding Club was determined to be non-compliant at 58 µg/m ³ (with HVO contribution being 85% against the maximum contribution limit of 75% in accordance with the approved AQMP at the time). Incident was reported to the HVGCC and DPIE.	Low
Sch 3 Cond 28	No confirmation that CLWD (now DoI Water) received the 2017 Annual Review.	Administrative
Sch 3 Cond 30	No evidence to confirm all River Red Gum sites (as shown in Appendix 8) have addressed management practices listed in the River Red Gum Strategy (2010).	Low
Sch 3 Cond 40	One compliance inspection per year has been completed rather than two as required within the approved ACHMP (2009) for 2018 and 2017.	Administrative

Ref	Non-Compliance	Risk
Sch 3 Cond 48	Overburden emplacement area (OEA) in the Glider Pit was approximately 10 m above the Obstacle Limitation Surface without obtaining prior approval from the HVGC. This was reported and OEA reshaped to remediate issue.	Low
Sch 3 Cond 53	Northstar advises that whilst a number of the actions undertaken by HVO may have some impact on the annualised GHG emission budget, these have not been presented in context of assessing all reasonable and feasible options.	Low
Sch 3 Cond 60	No evidence available of consultation with Singleton Council or the RFS.	Administrative
Sch 4 Cond 2	Notification of relevant landholders regarding the blasting exceedance - measured overpressure levels exceeded the 120 dBL criterion at two locations (Moses Crossing, Jerrys Plains) on 17 January 2018 (refer to Sch 3 Cond 7) was sent on 27/11/19, however was outside the required 2-week notification timeframe.	Administrative
Sch 5 Cond 1a	Management plans do not contain all required sections. Refer to Sch 5 Cond 1a for further detail.	Administrative
Sch 5 Cond 4a	No evidence available to confirm reviews of strategies, plans and programs conducted on each occasion listed in this condition. However, all plans have been updated in the audit period except for the following: <ul style="list-style-type: none"> HVO South Aboriginal Cultural Heritage Management Plan (May 2009); Amenity Management Plan-Hunter Valley Gliding Club (October 2012); and River Red Gum Rehabilitation and Restoration Strategy (March 2010). 	Administrative
App4 A.4	Bridges Acoustics notes the NMP and noise monitoring reports do not assess and correct for (or do not report) tonal noise as required by the NSW Industrial Noise Policy and later Noise Policy for Industry.	Low
SOC Ref 11	No evidence exists that collection and storage of River Red Gum seed from existing stands is occurring.	Low
HVO North DA 450-10-2003 (MOD7)		
Sch 2 Cond 2a	Some non-compliances were identified with the conditions of this approval.	Administrative
Sch 2 Cond 15	Sch 3 Cond 61 no evidence of correspondence with Singleton Council or NSW RFS in relation to consultation on the Bushfire Management Plan was available.	Administrative
Sch 3 Cond 4	As per PA 06_0261 Sch 3 Cond 53.	Low

Ref	Non-Compliance	Risk
Sch 3 Cond 7	Exceedance of noise level criteria listed in Table 9. Refer to Appendix E DA 450-10-2003 Sch 3 Cond 7.	Administrative
Sch 3 Cond 20	The following incidents relating to pollution of waters include: <ul style="list-style-type: none"> Discharge from leaking pipework on Parnell's Dam to Parnell's Creek on 4 November 2016; and Discharge from the Hunter Valley Load Point Sump to Bayswater Creek on 30 March 2017. 	Medium
Sch 5 Cond 4	No evidence available to confirm reviews of strategies, plans and programs conducted on each occasion listed in this condition. However, all plans have been updated in the audit period. Action has since been added to CMO with reminders.	Administrative
App3.4	The NMP and noise monitoring reports do not assess and correct for (or do not report) tonal noise as required by the NSW Industrial Noise Policy and later Noise Policy for Industry.	Low
SOC Ref 22	Annual visual assessments have not been completed. HVO has since purchased all properties that would have been considered to have been visually impacted by HVO North (particularly the Wandewoi Property on Lemington Road).	Administrative
EPL 640		
L1.1	The following incidents occurred relating to the pollution of waters: <ul style="list-style-type: none"> Turbid water entered Farrells Creek from sediment dam overtop on 4-5/10/18 (See response to DA 450-10-2003 Sch 5 Cond 2); Turbid water entered Farrells Creek from a rehabilitation area on the 18/3/19 (See response to DA 450-10-2003 Sch 5 Cond 2) Turbid water entered Farrells Creek from two sediment dams on 30/3/19 (See response to DA 450-10-2003 Sch 5 Cond 2); and Discharge of mine water to Bayswater Creek 11/5/18 (See response to (PA 06_0261 Sch 3 Cond 20). 	Low
L4.1	One blast on Easter Saturday 2017 (which was officially considered a public holiday in 2017) as per PA 06_0261 Sch 3 Cond 10	Administrative
L4.3	Two blasting exceedances on one occasion in 2018 at point 9 & 18: <ul style="list-style-type: none"> Measured overpressure levels exceeded the 120 dBL criterion at two locations (Moses Crossing, Jerrys Plains) on 17 January 2018. (See response to PA 06_0261 Sch 3 Cond 7) 	Low
O2.1	Minor discharge of saline water to Parnells Creek due to pinhole leak on 4/11/16. See response to DA 450-10-2003 Sch 3 Cond 20.	Low

6 MANAGEMENT PLANS, PROGRAMS AND STRATEGIES

Both PA 06_0261 (MOD5) and DA 450-10-2003 (MOD7) requires preparation of management plans and strategies. All currently approved management plans developed for HVO in accordance with the requirements of PA 06_0261 (MOD5) and DA 450-10-2003 (MOD7) were reviewed during this IEA, including:

- Environmental Management Strategy (EMS) (January, 2019);
- Pollution Incident Response Management Plan (August, 2019);
- Air Quality and Greenhouse Management Plan (AQMP) (September, 2019);
- Integrated Biodiversity Management Plan (IBMP) (June, 2018);
- Biodiversity and Offset Strategy (BOS) (October, 2017);
- River Red Gum Rehabilitation and Restoration Strategy (RRG) (March, 2010);
- Noise Management Plan (NMP) (February, 2019);
- Blast Management Plan (BMP) (April, 2019);
- Life of Mine Fine Reject Management Strategy (FRMS) (September 2018);
- Water Management Plan (WMP) (October, 2018);
- Bushfire Management Plan (BFMP) (October, 2017);
- Vegetation Clearance Plan (October, 2016);
- HVO South Aboriginal Cultural Heritage Management Plan (ACHMP) (May, 2009);
- HVO North Heritage Management Plan (HMP) (August, 2019);
- Goulburn River Management Plan (GRMP) (December, 2017); and
- Amenity Management Plan: Hunter Valley Gliding Club (HVGCMC) (October, 2012).

The status of each plan and any relevant recommendations in relation to each is provided in **Appendix E** at the relevant condition.

EPL 640 and Mining Operations Plan (MOP) documents relevant to HVO operations during the audit period were also reviewed. These included the approved:

- HVO South MOP (11 July 2018 to 30 July 2023; approved Amendment A by DPIE on 26 February 2019); and
- HVO North MOP (1 January 2019 – 31 December 2021 approved by DPIE on 26 February 2019).

7 AUDIT RECOMMENDATIONS

Table 8 includes a consolidated list of recommendations from the outstanding non-compliances identified in the 2016 IEA; and identified during this IEA in **Table 7**. **Table 8** also includes recommendations that are related to continuous improvement as indicated.

Table 8
Audit Recommendations

Ref	Description
Previous Audit Recommendations	
PA Sch 3 Cond 58	Include reminder of storage and segregation rules for dangerous goods as part of waste section of environmental training matrix.
PA SOC Ref 11	Refer to PA SOC Ref 11 below.
DA Sch 3 Cond 54	Refer to DA 450-10-2003 Sch 3 Cond 54 below.
DA SOC Ref 22	Refer to DA 450-10-2003 SOC Ref 22 below.
EPL A1.1	As EPL permits "Crushing, grinding or separating > 2000000 T annual processing capacity", recommend keeping records is not required for compliance purposes.
HVO South – PA 06_0261 Non-Compliance Recommendations	
Sch 2 Cond 2a	Work with DPIE to comply with conditions in Table 7 of this IEA Report where practical.
Sch 2 Cond 15	Ensure consultation with Singleton Council and RFS over the Bushfire Management Plan as per Schedule 3 Condition 30.
Sch 3 Cond 7	Bridges Acoustics recommends to avoid possible overpressure reflection from the control building and resultant uncertainty regarding overpressure levels, the second Maison Dieu monitor should be considered the primary monitor in this area.
Sch 3 Cond 10	Continue pre-blast environmental checks to ensure blasting is completed in accordance with PA 06_0261.
Sch 3 Cond 19	Continue HVO's approved management and reporting processes for any air quality exceedances.
Sch 3 Cond 28	Maintain records of consultation and submission for inclusion in future Annual Reviews.

Ref	Description
Sch 3 Cond 30 31	<p>River Red Gum Strategy:</p> <ul style="list-style-type: none"> • Add confirmation in the Annual Review over what areas of the Goulburn River Biodiversity areas have been addressed (in order to confirm HVO's 140 ha is compliant). • Recommend any revision to the Strategy include consultation with DoI Water and OEH. • Recommend holistic review of actions in light of future mining in the immediate area and likely impacts, flooding potential, climate, groundwater and surface water monitoring, and ecological monitoring to determine a realistic way forward in relation to the management of the area which has been inconclusive to date. DPIE should be consulted in relation to findings and way forward to ensure satisfaction secured.
Sch 3 Cond 40	Continue current process of completing twice annual compliance inspections as per the approved ACHMP, as implemented since the non-compliance was identified.
Sch 3 Cond 48	Ensure action tracking system within the mine planning process is continued to allow for all actions pertaining to be tracked and monitored, as implemented since the incident.
Sch 3 Cond 53	Northstar recommends that the AQMP Section 7 is updated to identify opportunities for emission reductions (in the reasonable and feasible areas of electricity use, diesel and other fuels, and Land Management. The Annual Review should include a summary of greenhouse gas emissions against commitments in AQMP.
Sch 3 Cond 60	Obtain correspondence from Council and Rural Fire Service confirming consultation and add to appendix at next review of the Bushfire Management Plan.
Sch 4 Cond 2	Update process to notify affected landholders for exceedances of air and blasting.
Sch 5 Cond 1a	At the next required revision to relevant management plans (none urgent) ensure all items within Sch 5 Cond 1a are addressed.
Sch 5 Cond 4a	Continue to ensure reminders are in place after each occasion for required reviews and revisions of strategies and documented.
App4 A.4	Tonal noise should be included in the noise monitoring reports and the NMP on its next revision.
SOC Ref 11	Collect seed from River Red Gum area or justify why not possible/required in revised BMP.
HVO South – PA 06_0261 Continual Improvement Recommendations	
Sch 2 Cond 2 and Sch 3 Cond 23	<p>Confirm all reasonable and feasible air quality controls are being implemented in this highly trafficked area with a high potential to generate airborne dust (e.g. water sprays, truck speed limits, road watering, dust suppressants, inspections). As required, update AQMP with air quality controls specific to this area.</p> <p>Recommend MOPs describe temporary in pit coal stockpiling and relevant mitigation.</p>

Ref	Description
Sch 2 Cond 16	<ul style="list-style-type: none"> • Update for new ownership and systems and regular review of environmental components of this induction. • Finalise updating HVO Site Familiarisation to include Aboriginal and cultural heritage information and other environmental issues not included. • Recommend the implementation of regular refresher training rather than only induction as proposed in 2020 (AS pers comms).
Sch 3 Cond 1	Update Table 1 in a future Modification to remove mine owned land.
Sch 3 Cond 13	Update Blast Management Plan to specifically describe Hunter River and Crown Land blocks within 500 m of blast area and controls in place so that an Agreement is not required as per (b).
Sch 3 Cond 18	Bridges Acoustic recommend revising and updating references in BMP Section 1 Tables 1 to 3, particularly Appendix references as inconsistencies were noted in all three tables.
Sch 3 Cond 19	<p>Dust deposition gauges at DL30 and Warkworth; and PM10 monitors at Knodlers Lane and Long Point be reconsidered as to their appropriateness as representative of private receivers (occur outside EA predictions of exceedance of criteria) as they are exceeding annual average results during the IEA period (however stated not due to HVO activities and not reported consistent with approved AQMP). As Knodlers Lane and Long Point monitoring sites occur within exceedance predictions for PM10 in the MOD5 assessment, it is likely that they will exceed on a continuous basis. HVO advises that DG will remain as internal management sites, not compliance as per Table 5 of the AQMP.</p> <p>Internal procedures and relevant training be updated for change to AQMP which changes reportable circumstances for PM10 24 hr consistent with the updated AQMP Section 9. HVO advises this is proposed.</p>
Sch 3 Cond 21	At next Modification Table 14 is updated for property ownership changes.
Sch 3 Cond 29	Regional Biodiversity Annual Review template be updated to allow quantification of monitoring data for HVO and clearly stipulate HVO's requirements and criteria are being met.
Sch 3 Cond 33a	Include DPIE approval as an appendix to the Biodiversity Management Plan.
Sch 3 Cond 35	<p>Mine Soils recommend the following:</p> <ul style="list-style-type: none"> • Soil be re-spread over areas of requiring attention to reach rehabilitation targets rather than alternative ameliorants given the location is typically on the steeper slopes; and • Weed management remains a priority on site, especially Galenia and over time Rhodes Grass.
Sch 3 Cond 39	Confirm with DPIE that this condition relating to the Conservation and Biodiversity Offset Implementation Bond applies to the update of the Goulburn River Management Plan not the Biodiversity Management Plan described in Sch 3 Cond 33a.
Sch 5 Cond 1	Recommend plan be updated for new ownership structure, titles and EMS structure in 2020.

Ref	Description
Sch 5 Cond 5	Consider at next modification note updated as per contemporary consents to allow DPIE flexibility in choosing audit experts required going forward, if amenable to DPIE.
App4 A.1	<p>Bridges Acoustics note during the audit period, a high percentage of results were collected under invalid weather conditions. HVO experienced the following approximate invalid results during the audit period:</p> <ul style="list-style-type: none"> • HVO North- 2017 (30%), 2018 (19%) and 2019 Jan-Sep (58%); and • HVO South – 2017 (65%), 2018 (56%) and 2019 Jan-Sep (78%); <p>Bridges Acoustics recommends Independent consultants completing the monthly noise compliance surveys should review predicted weather conditions before each noise survey to maximise noise data collected under the weather conditions specified in this condition, or a review of this process should be undertaken to ensure effectiveness. Additional monitoring should be considered where invalid results are greater than 50% of recorded results. NMP should be updated to reflect this commitment.</p>
SOC Ref 1	At the next modifications these SOCs are revised to remove any duplication with conditions of consent.
SOC Ref 10	Future versions of the WMP include an up-to-date list of the WALs and that all WALs are made available via the website.
HVO North - DA 450-10-2003 Non-Compliance Recommendations	
Sch 2 Cond 2a	Work with DPIE to comply with non-compliances in Table 7 of this IEA Report, where practical.
Sch 2 Cond 15	Ensure consultation with relevant regulators occurs for all management plans, or justify why not required in plan (e.g. administrative changes).
Sch 3 Cond 4	As per PA 06_0261 Sch 3 Cond 53.
Sch 3 Cond 7	Continue to implement the currently approved NMP (Feb 2019) in relation to management of any exceedances and non-compliances.
Sch 3 Cond 20	Continue to implement the Pollution Reduction Program for upgrading of water infrastructure at HVO and inspection regime since sump was upgraded.
Sch 5 Cond 4	As per PA 06_0261 Sch 5 Cond 4a.
App 3.4	Tonal noise should be included in the noise monitoring reports and the NMP on its next revision.
SOC Ref 22	A written justification should be provided to DPIE for approval that annual visual assessments are no longer required.
HVO North DA 450-10-2003 (MOD7) Continual Improvement Recommendations	
Sch 3 Cond 1	Update Table 1 in the next Modification to remove mine owned land.
Sch 3 Cond 4a	At next modification condition should be updated to be consistent with the industry by amending Note (b) incremental.

Ref	Description
Sch 3 Cond 9	Inconsistency in internal records were found in both the amount of haul trucks that have been attenuated and the completion of SPL testing. Internal records related to sound suppression and testing should be updated to be complete and consistent.
Sch 3 Cond 19	Revision and update to the Blast Management Plan to references in BMP Section 1 Tables 1 to 3, particularly Appendix references as such errors have been noted in all three tables.
Sch 3 Cond 28a	Future versions of the FRMS should include relevant consultation and approval correspondence in an appendix.
Sch 3 Cond 30	Recommend this condition is included in the revised strategy.
Sch 3 Cond 35	Update the relevant procedural document to include detail on relocating bat roosts. Update clause (e) to refer to the correct Table number.
Sch 3 Cond 45	Recommend re-approval of Lemington Road Closure Approval / Plan.
Sch 3 Cond 54	Confirm visual screen purpose has changed and hence its value. Conduct consultation with DPIE if deemed no further plantings required due to changed visual sensitivity of location with acquisition of relevant properties.
SOC Ref 1, 4, 12, 13 and 14	Compliance requirement is updated or removed during a future modification for consistency and in order to ensure consistent requirements.
EPL 640	
L1.1	Continue to implement Pollution Reduction Program for upgrading of water infrastructure at HVO and inspection regime.
L4.1	Refer to PA 06_0261 Sch 3 Cond 10.
L4.3	Refer to PA 06_0261 Sch 3 Cond 7.
M.5	Add comment box as to why no further actions are required within CMO complaint form template in order to show compliance with M5.2(f).
O2.1	Refer to DA 450-10-2003 Sch 3 Cond 20.

* * *

for
HANSEN BAILEY



Tamie Gray
Environmental Scientist



Dianne Munro
Principal

APPENDIX A
Regulatory Correspondence



Mr Andrew Speechly
Manager Environment and Community
Hunter Valley Operations
PO Box 315
SINGLETON NSW 2330

Planning & Assessment- Compliance
Contact: James Epstein
Phone: 02 6670 8650
Email: james.epstein@planning.nsw.gov.au
compliance@planning.nsw.gov.au

Our Ref.: DA 450-10-2003; PA_06 0261
(#18049)

Dear Mr Speechly,

**RE: Hunter Valley Operations DA 450-10-2003 and PA_06 0261
Independent Audits 2019**

Reference is made to your letter dated 5 February 2019 seeking approval to combine the Hunter Valley Operations ("HVO") South Coal Project Approval (06_0261) and the HVO West Pit (HVO North) Approval (DA 450-10-2003) Independent Audits (the "Audit") for 2019 and extend the date of commissioning the Audit required under Schedule 5, Condition 5 of PA 06_0261.

I have considered your request and approve that the Independent Environmental Audits required by Schedule 5, Condition 5 of the HVO South Coal Project Approval (06_0261), and Schedule 5, Condition 10 of the HVO West Pit (HVO North) Approval (DA 450-10-2003) can be undertaken as a combined audit.

Further, I have considered your request and approve extending the date of commissioning the Audit under Schedule 5, Condition 5 of PA 06_0261 from 31 March 2019 to 1 December 2019 to allow for a combined audit to be undertaken.

The Audit report together with responses to any recommendations contained in the Audit report should be submitted within 12 weeks of the completion of the Audit, as required by Schedule 5, Condition 6 of PA 06_0261 and Schedule 5, Condition 11 of DA 450-10-2003.

Please ensure the audit team is endorsed before proceeding with the audit.

Should you need to discuss the above, please contact James Epstein on 0429 395 691 or email to compliance@planning.nsw.gov.au

Yours sincerely

 17/7/19

Leah Cook
Team Leader - Compliance
As Nominee of the Secretary



Mr Dominic Brown
Environment & Community Coordinator
Hunter Valley Operations Pty Ltd
PO Box 315
SINGLETON NSW 2330

Contact: James Epstein
Phone: 02 6575 3419
Email: compliance@planning.nsw.gov.au
Our Ref: DA 450-10-2003; PA 06_0261

Dear Mr Brown,

**Hunter Valley Operations DA 450-10-2003 and PA_06 0261
Independent Audits 2019**

Reference is made to correspondence from Hunter Valley Operations Pty Ltd (HVO) dated 23 September 2019 seeking approval of the audit team for the upcoming Independent Environmental Audit (IEA) required by Schedule 5, Condition 5 of the HVO South Coal Project Approval (PA 06_0261), and Schedule 5, Condition 10 of the HVO West Pit (HVO North) Approval (DA 450-10-2003) (the Approvals).

The Secretary has considered HVO's request and approves the following audit team for the 2019 IEA:

- Dianne Munro – Principal Auditor;
- Tamie Gray – Environmental Scientist;
- Gary Graham – Northstar Air Quality (Air);
- Mark Bridges – Bridges Acoustics (Noise);
- Ross Edwards – Hansen Bailey (Surface Water and Groundwater); and
- Clayton Richards – Minesoils (Rehabilitation)

The Department notes Section 6.4 of the Hunter Valley Operations Proposal Independent Environmental Audit dated September 2019 which declares the audit team independent of HVO.

The IEA is to be conducted in accordance with the conditions of the approval, and the Department's *Independent Audit Guideline* (October 2015). Further, in accordance with Schedule 5, Condition 5 and Schedule 5, Condition 10 of the Approvals, the Secretary requires that in undertaking the IEA, the Auditor:

- Consult with the following agencies prior to the IEA site inspection, with all matters raised to be clearly tabulated and addressed in the IEA report:
 - Department of Planning, Industry and Environment;
 - Department of Planning, Industry and Environment – Resources Regulator – Division of Resources and Geoscience;

- Department of Planning, Industry and Environment – Biodiversity and Conservation Division
 - Environment Protection Authority;
 - Department of Industry – Crown Lands and Water;
 - Singleton Shire Council; and
 - HVO Community Consultative Committee
- Only use the compliance status descriptors “compliant”, “non-compliant” or “not triggered”. The terms “partial compliance”, “partial non-compliance”, “not verified” or other similar terms are not to be used; and
 - Recommends actions to address each non-compliance identified and any additional opportunities for improvement.

The audit report together with responses to any recommendations contained in the report should be submitted within 12 weeks of the completion of the Audit (last inspection date), as required by Schedule 5, Condition 6 of PA 06_0261 and Schedule 5, Condition 11 of DA 450-10-2003.

The Department notes that HVO will be undertaking a combined audit for PA 06_0261 and DA 450-10-2003 as per correspondence dated 17 July 2019. The IEA and RAR shall be submitted to compliance@planning.nsw.gov.au by **24 February 2020**, or as otherwise agreed by the Secretary.

Should you need to discuss the above, please contact James Epstein on (02) 6575 3419.

Yours sincerely,



27/09/19.

Leah Cook

Team Leader Compliance

As nominee of the Secretary



Mr Dominic Brown
Environment & Community Coordinator
HV Operations Pty Ltd
PO Box 315
SINGLETON NSW 2330

Contact: James Epstein
Phone: (02) 6575 3419
Email: compliance@planning.nsw.gov.au
Our ref: DA 450-10-2003; PA 06_0261 (#20845)

By Email: Dominic.Brown@hvo.com.au
CC: dmunro@hansenbailey.com.au

Dear Mr Brown

Hunter Valley Operations DA 450-10-2003 and PA_06 0261
Independent Audit 2019

Reference is made to the Independent Environmental Audit (IEA) report and Response to Audit Recommendations (RAR) for Hunter Valley Operations, prepared as required by Schedule 5, Condition 5 of the HVO South Coal Project Approval (PA 06_0261), and Schedule 5, Condition 10 of the HVO West Pit (HVO North) Approval (DA 450-10-2003) (the Approvals) and submitted by HV Operations Pty Ltd (HVO) to the Department of Planning, Industry and Environment (the Department) on 24 February 2020.

The Department considers that the IEA report and RAR require further information to meet the reporting requirements of the approval and the Department's *Independent Environmental Audit Guideline* (October 2015) (the Guideline).

Please address the following and resubmit to the Department for review by **10 April 2020**:

- Not all non-compliances identified in Table 7 have an auditor recommendation in Table 8 of the IEA. In accordance with Section 5.1 of the Guideline, any non-compliance must have a recommendation provided. Please revise the IEA to include an auditor recommendation for any non-compliance identified in Table 7. Following the addition of further recommendations, please update the RAR with additional responses;
- The Department issued approval of a request for an extension of time for the audit to be conducted and for combination of the two approvals in the one audit, dated 17 July 2019. Please attach this correspondence as an appendix to the IEA;
- In accordance with Section 4.2 of the Guideline, the auditor is required to consult with agencies and the community. Table 5 of the IEA summarises agency consultation. Please attach evidence of consultation as an appendix to the IEA; and
- Section 3.3 of the IEA states that NRAR did not have any specific concerns, however Table 5 lists a requirement from NRAR, but no comments from EPA. Please update Section 3.3 and Table 5 to correctly reflect consultation.

Should you have any further questions on this matter, please contact James Epstein on the details listed above, or email.

Yours sincerely,

Heidi Watters
Team Leader Northern
Compliance, Planning & Assessments

Tamie Gray

From: Dianne Munro
Sent: Monday, 25 November 2019 9:21 AM
To: Tamie Gray
Subject: FW: Hunter Valley Operations Coal Mine - Independent Environmental Audit Regulatory Engagement

From: Ann Hagerthy <Ann.Hagerthy@planning.nsw.gov.au>
Sent: Wednesday, 13 November 2019 4:49 PM
To: Dianne Munro <DMunro@hansenbailey.com.au>
Cc: Heidi Watters <Heidi.Watters@Planning.nsw.gov.au>; James Epstein <James.Epstein@planning.nsw.gov.au>
Subject: RE: Hunter Valley Operations Coal Mine - Independent Environmental Audit Regulatory Engagement

Hi Dianne,

Thanks for your email. Can you please provide a focussed review on the following matters for the IEA:

- Timeliness and adequacy of responses to dust alarms (and recording of responses)
- Blast monitoring protocols, and appropriate siting of blast monitors
- Management of dirty (sediment laden) water and mine water

Regards,

Ann Hagerthy
Senior Compliance Officer (T, W, Th, alternating Fridays)

Planning & Assessment - Compliance | Department of Planning, Industry and Environment
T 02 6575 3407 | **M** 0428 976 540 | **E** ann.hagerthy@planning.nsw.gov.au
PO Box 3145 | Singleton NSW 2330

Please direct all email correspondence to compliance@planning.nsw.gov.au

www.dpie.nsw.gov.au



The Department of Planning, Industry and Environment acknowledges that it stands on Aboriginal land. We acknowledge the traditional custodians of the land and we show our respect for elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

Begin forwarded message:

From: Dianne Munro <DMunro@hansenbailey.com.au>
Date: 5 November 2019 at 8:17:43 am AEDT
To: "james.epstein@planning.nsw.gov.au" <james.epstein@planning.nsw.gov.au>
Cc: Tamie Gray <TGray@hansenbailey.com.au>
Subject: Hunter Valley Operations Coal Mine - Independent Environmental Audit Regulatory Engagement

Good morning James,

Hansen Bailey has been approved to conduct the 2019 Independent Environmental Audit (IEA) for Hunter Valley Operations (HVO) coal mine in accordance conditions of development consent (DA 450-10-2003 and PA 06_0261) which states:

Schedule 5, Conditions 10 & 11 of DA 450-10-2003 (HVO North) states:

- “10. Prior to 1 December 2019, and every three years thereafter, unless the Secretary directs otherwise, the Applicant must commission, commence and pay the full cost of an Independent Environmental Audit of the development. This audit must:*
- (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;*
 - (b) include consultation with the relevant agencies and the CCC;*
 - (c) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent and any relevant EPL and/or Water Licences (including any assessment, plan or program required under these approvals);*
 - (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals;*
 - (e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals; and*
 - (f) be conducted and reported to the satisfaction of the Secretary.*

Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Secretary.

11. *Within 12 weeks of commencing each audit, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of any measures proposed to address the recommendations.”*

Schedule 5, Conditions 5 & 6 of PA 06_0261 (HVO South) states:

- “5. *By 31 March 2010, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent must commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:*
 - (a) be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been endorsed by the Secretary;*
 - (b) include consultation with the relevant agencies;*
 - (c) assess the environmental performance of the project and whether it is complying with the relevant requirements in this approval and any relevant mining lease and EPL (including any strategy, plan or program required under these approvals);*
 - (d) review the adequacy of strategies, plans and/or programs required under these approvals;*
 - (e) recommend appropriate measures or actions to improve the environmental performance of the project, and/or any strategy, plan or program required under these approvals; and*
 - (f) be conducted and reported to the satisfaction of the Secretary.*

Note: This audit team should be led by a suitably qualified auditor, and include experts in the field of noise and air quality, surface water and groundwater and mine rehabilitation.
6. *Within 12 weeks of commencing each audit, or as otherwise agreed by the Secretary, the Proponent must submit a copy of the audit report to the Secretary with a response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations. The Proponent must implement these recommendations.”*

As part of consultation with key regulators, could you please provide any request you have in relation to any specific environmental areas you require any particular focus on as part of the IEA. Dominic Brown from HVO has kindly provided your email address to facilitate this email.

If you could respond by **Tuesday, 19 November** it would be appreciated. Please do not hesitate to call to discuss.

Regards,

Dianne Munro
Principal Environmental Scientist

Tamie Gray

From: Matthew Quinn <Matthew.Quinn@planning.nsw.gov.au>
Sent: Wednesday, 6 November 2019 3:20 PM
To: Dianne Munro
Cc: Tamie Gray; Catherine Lewis
Subject: RE: Hunter Valley Operations Coal Mine - Independent Environmental Audit Regulatory Engagement

Hi Dianne

The Department suggests the audit address the following questions:

1. Verify that there is a current Mining Operations Plan (MOP) in place and it has been approved by the Regulator – review compliance against any conditions of approval of the MOP.
2. Verify that the MOP is compatibility with the description of operations contained in the planning approval. In particular:
 - Review the rehabilitation strategy as outlined in the MOP to determine if it is consistent with the Project Approval in terms of progressive rehabilitation schedule; and proposed final land use(s)
 - Review the rehabilitation objectives and completion criteria as outlined in the MOP to determine if they have been developed in accordance with the proposed final land use(s) as outlined in the Project Approval.
3. Confirm that mining operations are being conducted in accordance with the approved MOP (production, mining sequence etc.), including within the designated MOP approval boundary – to be verified by site plans and site inspection.
4. Based on a visual inspection, determine if there are any rehabilitation areas that appear to have failed or that have incurred an issue that may result in a delay in achieving the successful rehabilitation
5. Are there controls to ensure soil resources are appropriate to achieve nominated final land uses? For example, is there sufficient soil quantity to achieve a specified final land use outcome?

Happy to discuss.

Thanks.

Matthew Quinn
Inspector Environment Operations

Resources Regulator | Department of Planning, Industry and Environment
T 02 4063 6630 | M 0499 466 436 | E Matthew.Quinn@planning.nsw.gov.au
516 High Street, Maitland NSW 2320 | PO Box 344 HRMC NSW 2310
www.resourcesregulator.nsw.gov.au
www.dpie.nsw.gov.au



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The Department of Planning, Industry and Environment acknowledges that it stands on Aboriginal land. We acknowledge the traditional custodians of the land and we show our respect for elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.



From: Dianne Munro <DMunro@hansenbailey.com.au>

Sent: Tuesday, 5 November 2019 8:20 AM

To: Matthew Quinn <Matthew.Quinn@planning.nsw.gov.au>

Cc: Tamie Gray <TGray@hansenbailey.com.au>

Subject: Hunter Valley Operations Coal Mine - Independent Environmental Audit Regulatory Engagement

Good morning Matthew,

Hansen Bailey has been approved to conduct the 2019 Independent Environmental Audit (IEA) for Hunter Valley Operations (HVO) coal mine in accordance conditions of development consent (DA 450-10-2003 and PA 06_0261) which states:

Schedule 5, Conditions 10 & 11 of DA 450-10-2003 (HVO North) states:

“10. Prior to 1 December 2019, and every three years thereafter, unless the Secretary directs otherwise, the Applicant must commission, commence and pay the full cost of an Independent Environmental Audit of the development. This audit must:

(a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;

(b) include consultation with the relevant agencies and the CCC;

(c) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent and any relevant EPL and/or Water Licences (including any assessment, plan or program required under these approvals);

(d) review the adequacy of strategies, plans or programs required under the abovementioned approvals;

(e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals; and

(f) be conducted and reported to the satisfaction of the Secretary.

Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Secretary.

11. Within 12 weeks of commencing each audit, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of any measures proposed to address the recommendations.”

Schedule 5, Conditions 5 & 6 of PA 06_0261 (HVO South) states:

“5. By 31 March 2010, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent must commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:

(a) be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been endorsed by the Secretary;

(b) include consultation with the relevant agencies;

(c) assess the environmental performance of the project and whether it is complying with the relevant requirements in this approval and any relevant mining lease and EPL (including any strategy, plan or program required under these approvals);

(d) review the adequacy of strategies, plans and/or programs required under these approvals;

(e) recommend appropriate measures or actions to improve the environmental performance of the project, and/or any strategy, plan or program required under these approvals; and

(f) be conducted and reported to the satisfaction of the Secretary.

Note: This audit team should be led by a suitably qualified auditor, and include experts in the field of noise and air quality, surface water and groundwater and mine rehabilitation.

6. *Within 12 weeks of commencing each audit, or as otherwise agreed by the Secretary, the Proponent must submit a copy of the audit report to the Secretary with a response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations. The Proponent must implement these recommendations.”*

As part of consultation with key regulators, could you please provide any request you have in relation to any specific environmental areas you require any particular focus on as part of the IEA. Dominic Brown from HVO has kindly provided your email address to facilitate this email.

If you could respond by **Tuesday, 19 November** it would be appreciated. Please do not hesitate to call to discuss.

Regards,

Dianne Munro

Principal Environmental Scientist

MEnvLaw BSc

HANSEN BAILEY

Tel: 02 6575 2000

Fax: 02 6575 2001

Mobile: 0428 772 566

Email: dmunro@hansenbailey.com.au



DOC19/990913-1; EF16/2461

Hansen Bailey

Email: DMunro@hansenbailey.com.au

Attention: Dianne Munro

Dear Ms Munro

Hunter Valley Operations – 2019 Independent Environmental Audit (IEA)

Reference is made to your email dated 5 November 2019 to the Environment Protection Authority ("EPA") requesting review and comment in relation to the preparation of the *Hunter Valley Operations 2019 Independent Environmental Audit (IEA)*.

The EPA encourages independent audit towards proponents improving their environmental performance. We do not provide input as our role is to set environmental objectives for environmental/conservation management and manage outcomes.

I refer you to the EPA's public register <http://www.epa.nsw.gov.au/prpoeo/index.htm> where you can search for regulatory activity undertaken by the EPA for Environment Protection Licence 640 for HV Operations Pty Ltd.

If you wish to discuss the matter further, please contact me on 02 4908 6833.

Yours sincerely

N Ryan 18.11.19

NATASHA RYAN
Regional Operations Officer - Hunter
Environment Protection Authority

Tamie Gray

From: Dianne Munro
Sent: Wednesday, 6 November 2019 10:57 AM
To: Tamie Gray
Subject: FW: Hunter Valley Operations Coal Mine - Independent Environmental Audit Regulatory Engagement

From: Ellie Randall <ellie.randall@nrar.nsw.gov.au>
Sent: Wednesday, 6 November 2019 9:29 AM
To: Dianne Munro <DMunro@hansenbailey.com.au>
Cc: Christopher Jones <christopher.jones@nrar.nsw.gov.au>; Estelle Avery <estelle.avery@nrar.nsw.gov.au>
Subject: Fwd: Hunter Valley Operations Coal Mine - Independent Environmental Audit Regulatory Engagement

Hi Dianna,

Please ensure the audit covers all conditions associated with the Conditions of Approval, including management plans, mine operation plans and requirements associated with site Water Access Licences and site water management systems as you have outlined in your previous email.

Please send future correspondence to nrar.servicedesk@industry.nsw.gov.au

Kind regards

Ellie Randall | Water Regulation Officer

Natural Resources Access Regulator | Water Regulation (East)

Level 0 | 84 Crown Street | Wollongong NSW 2500

PO Box 53 Wollongong NSW 2520

T: +61 2 4275 9308 | F: +61 2 4224 9740

E: ellie.randall@nrar.nsw.gov.au

W: www.industry.nsw.gov.au



Natural Resources
Access Regulator

----- Forwarded message -----

From: **Christopher Jones** <christopher.jones@nrar.nsw.gov.au>

Date: Wed, Nov 6, 2019 at 9:18 AM

Subject: Fwd: Hunter Valley Operations Coal Mine - Independent Environmental Audit Regulatory Engagement

To: Estelle Avery <estelle.avery@nrar.nsw.gov.au>, Ellie Randall <ellie.randall@nrar.nsw.gov.au>

Cc: Alison Collaros <alison.collaros@nrar.nsw.gov.au>

Hi Estelle and Ellie

I was a bit uncertain where this would live in our team. They want a response by the 19th Nov. How should we proceed?

Cheers,

Chris Jones | Water Regulation Officer
Natural Resources Access Regulator
Department of Planning, Industry and Environment | Lands & Water
Level 11, 10 Valentine Avenue | Parramatta NSW 2150
Locked Bag 5123 | Parramatta NSW 2124
T: 02 9842 8743
E: Christopher.jones@nrar.nsw.gov.au
W: www.industry.nsw.gov.au

----- Forwarded message -----

From: **Dianne Munro** <DMunro@hansenbailey.com.au>

Date: Tue, Nov 5, 2019 at 8:35 AM

Subject: Hunter Valley Operations Coal Mine - Independent Environmental Audit Regulatory Engagement

To: Christopher.jones@nrar.nsw.gov.au <Christopher.jones@nrar.nsw.gov.au>

Cc: Tamie Gray <TGray@hansenbailey.com.au>

Good morning Chris,

Hansen Bailey has been approved to conduct the 2019 Independent Environmental Audit (IEA) for Hunter Valley Operations (HVO) coal mine in accordance conditions of development consent (DA 450-10-2003 and PA 06_0261) which states:

Schedule 5, Conditions 10 & 11 of DA 450-10-2003 (HVO North) states:

“10. Prior to 1 December 2019, and every three years thereafter, unless the Secretary directs otherwise, the Applicant must commission, commence and pay the full cost of an Independent Environmental Audit of the development. This audit must:

(a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;

(b) include consultation with the relevant agencies and the CCC;

(c) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent and any relevant EPL and/or Water Licences (including any assessment, plan or program required under these approvals);

(d) review the adequacy of strategies, plans or programs required under the abovementioned approvals;

(e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals; and

(f) be conducted and reported to the satisfaction of the Secretary.

Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Secretary.

11. Within 12 weeks of commencing each audit, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of any measures proposed to address the recommendations.”

Schedule 5, Conditions 5 & 6 of PA 06_0261 (HVO South) states:

“5. By 31 March 2010, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent

must commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:

(a) be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been endorsed by the Secretary;

(b) include consultation with the relevant agencies;

(c) assess the environmental performance of the project and whether it is complying with the relevant requirements in this approval and any relevant mining lease and EPL (including any strategy, plan or program required under these approvals);

(d) review the adequacy of strategies, plans and/or programs required under these approvals;

(e) recommend appropriate measures or actions to improve the environmental performance of the project, and/or any strategy, plan or program required under these approvals; and

(f) be conducted and reported to the satisfaction of the Secretary.

Note: This audit team should be led by a suitably qualified auditor, and include experts in the field of noise and air quality, surface water and groundwater and mine rehabilitation.

6. Within 12 weeks of commencing each audit, or as otherwise agreed by the Secretary, the Proponent must submit a copy of the audit report to the Secretary with a response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations. The Proponent must implement these recommendations.”

As part of consultation with key regulators, could you please provide any request you have in relation to any specific environmental areas you require any particular focus on as part of the IEA. Dominic Brown from HVO has kindly provided your email address to facilitate this email.

If you could respond by **Tuesday, 19 November** it would be appreciated. Please do not hesitate to call to discuss.

Regards,

Dianne Munro

Principal Environmental Scientist

MEnvLaw BSc

HANSEN BAILEY

Tel: 02 6575 2000

Fax: 02 6575 2001

Mobile: 0428 772 566

Email: dmunro@hansenbailey.com.au

This message is intended for the addressee named and may contain confidential information. If you are not the intended recipient, please delete it and notify the sender. Views expressed in this message are those of the individual sender, and are not necessarily the views of their organisation.

This message is intended for the addressee named and may contain confidential information. If you are not the intended recipient, please delete it and notify the sender. Views expressed in this message are those of the individual sender, and are not necessarily the views of their organisation.

Tamie Gray

From: Colin Gellatly <colgellatly@cga.com.au>
Sent: Tuesday, 26 November 2019 3:24 PM
To: Tamie Gray
Cc: Dianne Munro
Subject: Re: Hunter Valley Operations Coal Mine - Independent Environmental Audit Regulatory Engagement

Thank you but no specific concerns from m, Col

Sent from my iPhone

On 26 Nov 2019, at 11:41 am, Tamie Gray <TGray@hansenbailey.com.au> wrote:

Good Morning Mr Gellatly,

Hansen Bailey is looking to finalise any specific environmental concerns from regulatory bodies in the lead up to the Independent Environmental Audit (IEA) at Hunter Valley Operations (HVO) north and south site in the coming week.

Can you please confirm if as Chair of the CCC, whether you have any specific concerns that you want the IEA to address?

Thankyou

Kind regards

Tamie Gray
Environmental Scientist

HANSEN BAILEY
Tel: (02) 6575 2000
Email: tgray@hansenbailey.com.au

Please note that our office will be closed over the Christmas period from 21-12-19 to 05-01-19 (inclusive) and will re-open at 8.00am on 06-01-20. The staff of Hansen Bailey wish you a happy and safe holiday season!

From: Dianne Munro <DMunro@hansenbailey.com.au>
Sent: Tuesday, 5 November 2019 9:54 AM
To: colgellatly@cga.com.au
Cc: Tamie Gray <TGray@hansenbailey.com.au>
Subject: Hunter Valley Operations Coal Mine - Independent Environmental Audit Regulatory Engagement
Importance: High

Good morning Mr Gellatly,

Hansen Bailey has been approved to conduct the 2019 Independent Environmental Audit (IEA) for Hunter Valley Operations (HVO) coal mine in accordance conditions of development consent (DA 450-10-2003 and PA 06_0261) which states:

Schedule 5, Conditions 10 & 11 of DA 450-10-2003 (HVO North) states:

- “10. Prior to 1 December 2019, and every three years thereafter, unless the Secretary directs otherwise, the Applicant must commission, commence and pay the full cost of an Independent Environmental Audit of the development. This audit must:*
- (a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;*
 - (b) include consultation with the relevant agencies and the CCC;*
 - (c) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent and any relevant EPL and/or Water Licences (including any assessment, plan or program required under these approvals);*
 - (d) review the adequacy of strategies, plans or programs required under the abovementioned approvals;*
 - (e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals; and*
 - (f) be conducted and reported to the satisfaction of the Secretary.*
- Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Secretary.*
- 11. Within 12 weeks of commencing each audit, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of any measures proposed to address the recommendations.”*

Schedule 5, Conditions 5 & 6 of PA 06_0261 (HVO South) states:

- “5. By 31 March 2010, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent must commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:*

(a) be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been endorsed by the Secretary;

(b) include consultation with the relevant agencies;

(c) assess the environmental performance of the project and whether it is complying with the relevant requirements in this approval and any relevant mining lease and EPL (including any strategy, plan or program required under these approvals);

(d) review the adequacy of strategies, plans and/or programs required under these approvals;

(e) recommend appropriate measures or actions to improve the environmental performance of the project, and/or any strategy, plan or program required under these approvals; and

(f) be conducted and reported to the satisfaction of the Secretary.

Note: This audit team should be led by a suitably qualified auditor, and include experts in the field of noise and air quality, surface water and groundwater and mine rehabilitation.

6. *Within 12 weeks of commencing each audit, or as otherwise agreed by the Secretary, the Proponent must submit a copy of the audit report to the Secretary with a response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations. The Proponent must implement these recommendations."*

As part of consultation with the CCC, could you please provide any request you have in relation to any specific environmental areas you require any particular focus on as part of the IEA. Dominic Brown from HVO has kindly provided your email address to facilitate this email.

If you could respond by **Tuesday, 19 November** it would be appreciated. Please do not hesitate to call to discuss.

Regards,

Dianne Munro

Principal Environmental Scientist

MEnvLaw BSc

HANSEN BAILEY

Tel: 02 6575 2000

Fax: 02 6575 2001

Mobile: 0428 772 566

Email: dmunro@hansenbailey.com.au

8 November 2019

Dianne Munro

Principal Environmental Scientist
Hansen Bailey
6/127-129 John Street
Singleton NSW 2330

Dear Dianne

RE: Hunter Valley Operations North and South (DA 450-10-2003 and PA 06_0261) – Independent Environmental Audit 2019

I refer to your email request dated 5 November 2019 requesting comment from Council on the Hunter Valley Operations North and South Independent Environmental Audit. This letter forms Council's feedback in relation to that request.

The conditions of approval for Hunter Valley Operations North, under DA 450-10-2003, require consultation with council on a number of matters, including, but not limited to:

- Blast Management Plan
- New access intersection to Hunter Valley Loading Point
- Road closures plan of management
- Lemington Road
- Road Safety Audit
- Coal Haulage
- Bushfire Management Plan
- Rehabilitation Management Plan
- Mine Exit Strategy

Additionally, the conditions of approval require the Applicant to establish a community consultative committee with representation from Council, and provide a copy of the Annual Review to Council.

The conditions of approval for Hunter Valley Operations South, under PA 06_0261, require consultation with council on a number of matters, including, but not limited to:

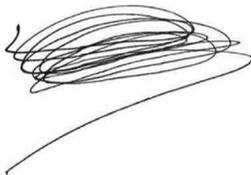
- Development contributions
- Rehabilitation Management Plan
- Relocation of Comleroi Road
- Visual impact mitigation
- Fire Management Plan

Additionally, the conditions of approval require the Applicant to establish a community consultative committee with representation from Council.

Council would expect that the audit will include evidence to support the compliance status of these conditions of approval, and of particular interest to council, under DA 450-10-2003, how the Applicant has progressed working with the two councils (Singleton and Muswellbrook) to investigate the minimisation of adverse socio-economic effects of a significant reduction in local employment levels and closure of the development at the end of its life. I also note that Table 17, in condition 62, requires consideration of the socio-economic effects to be included in the approved Rehabilitation Management Plan.

I would like to thank you for the opportunity to provide comment on scope for the Hunter Valley Operations North and South Independent Environmental Audit. Should you have any questions or comments, please contact Mary-Anne Crawford, Manager Development and Environmental Services on 02 6578 7290.

Yours faithfully

A handwritten signature in black ink, consisting of several overlapping loops and a long, sweeping tail that extends downwards and to the right.

Mary-Anne Crawford
Manager Development and Environmental Services

APPENDIX B
Plates from Site Inspection



Plate 1
Activities at HVO South In-pit ROM Storage Area Generating Dust



Plate 2
HVO Workshop with Excellent housekeeping



Plate 3
Well maintained HVO CHPP



Plate 4
Water Truck in use



Plate 5
Water truck at CHPP area



Plate 6
Active Mining in Cheshunt Pit with minimal dust for wind conditions



Plate 7
Appropriate fencing and signage at the River Red Gum area



Plate 8
Carrington Billabong 2017 Supplementary Planting



Plate 9
Carrington Billabong 2017 Supplementary Planting



Plate 10
Example of young rehabilitation (1-2 years)



Plate 11
Tree species diversity tracking towards rehabilitation targets



Plate 12
New rehabilitation recently sown



Plate 13

Example of small stockpile sown with natives to encourage seedbank



Plate 14

Newly sown rehabilitation with young 'roly poly' weed



Plate 15
Recycling bins at workshop area



Plate 16
Appropriately stored pallets



Plate 17
Stockpile of Salvaged Logs for use in rehabilitation



Plate 18
Redesigned Sump at CHPP



Plate 19
Heritage fencing and signage at CD-CM1



Plate 20
Bunding of Hydrocarbon Storage area at MIA



Plate 21

Stockpiled soil resources being trucked to new rehabilitation areas

APPENDIX C
Site Itinerary

**Hunter Valley Operations
Department of Planning & Environment
Independent Environmental Audit**

ITINERARY

**Site Component to be held from
Monday, 2 December to Thursday, 5 December 2019**

INVITEES

Tony Galvin (TG-GM)		General Manager
Phillip Price (PP)		Operations Manager
Shaun Leary (SL)		Technical Services Manager
Stephen Jackson (SJ)		CHPP Manager
Bruce Gould (BG)		Mine Manager
Clive Taylor (CT)		Maintenance Manager
Andrew Speechly (AS)		Environment & Community Manager
Dominic Brown (DB)		Environment and Community Coordinator
Robert Carter (RC)		Environment and Community Coordinator
Michael Lloyd (ML)		Environment and Community Coordinator
Kate Woodward (KW)		Tenements & Compliance Coordinator
Peter Bowman (PB)		Environment and Community Officer
Drew Williams (DW)		Environment and Community Officer
Dianne Munro (DM)	Hansen Bailey	Lead Auditor
Tamie Gray (TG)	Hansen Bailey	Assistant Auditor
Clayton Richards (CR)	MineSoils	Rehabilitation Specialist Auditor
Mark Bridges (MB)	Bridges Acoustics	Noise & Blasting Specialist Auditor
Gary Graham (GG)	Northstar	Air Quality Specialist Auditor

DAY 1 – Monday, 2 December

Time	Description	Location	Attendees
8 – 8:30am	Opening Meeting <ul style="list-style-type: none"> • Introductions (DB) • IEA scope and purpose (DM) • Confidentiality Arrangements (DM) • IEA process and timing (DM) • Meeting Confirmation (All) 	HVS Meeting Room 1	All
8:30 – 9am	HVO Presentation <ul style="list-style-type: none"> • Overview of current operations by site personnel 	HVS Meeting Room 1	DM, TG, AS, DB

Time	Description	Location	Attendees
9am – 12pm	Compliance Review <ul style="list-style-type: none"> HVO North (DA 450-10-2003) Individual Conditions HVO South (PA 06_0261) Individual Conditions 	HVS Meeting Room 1	DM, TG, AS, RC, ML, DB
10 – 2pm	Air Quality Specialist Site Visit <ul style="list-style-type: none"> Consent conditions Monitoring & Management Plan EA comparison Field visit (as required)	Field	GG, DB
12 – 12:15pm	Lunch	HVS Meeting Room 1	-
12:15 – 2pm	Compliance Review (cont.) <ul style="list-style-type: none"> DA & PA Individual conditions (cont.) 	HVS Meeting Room 1	DM, TG, AS, RC, ML
2 – 2:15 pm	Auditor Brief discussion with Specialist	HVS Meeting Room 1	DM, TG, GG
2:15 – 5pm	Compliance Review (cont.) DA & PA Individual conditions (cont.)	HVS Meeting Room 1	DM, TG, AS, DB, RC, ML

DAY 2 – Tuesday, 3 December

Time	Description	Location	Attendees
8 – 8:15am	Day 2 Overview Meeting <ul style="list-style-type: none"> Confirm arrangements for Day 2 	HVS Meeting Room 1	DM, TG, DB
8am – 3pm	Rehabilitation Specialist Site Visit <ul style="list-style-type: none"> EIS Conditions – Rehabilitation Management Plan/MOP – Rehabilitation Procedures – Rehabilitation Field visit of Rehabilitation 	Field	CR, RC
8:15am – 11.45pm	Compliance Review (cont.) <ul style="list-style-type: none"> Individual conditions (cont.) Actual, EA and MOP Comparison Supporting Documents (EA) Review (key parameters) Management Plan Commitments 	HVS Meeting Room 1	DM, TG, AS, DB
11:45am – 12pm	Lunch	HVS Meeting Room 1	-

Time	Description	Location	Attendees
12 – 3pm	Site Inspection <ul style="list-style-type: none"> • Mining Areas • Main Infrastructure Areas • Rehabilitation • Noise, blast, visual and air quality management (including RTEMS) • Water and tailings management • Onsite Ecological Offsets • Heritage • Monitoring • Key private neighbours 	Field	DM, TG, DB, DW
3 – 3:15 pm	Auditor Brief discussion with Specialist	HVS Meeting Room 1	DM, TG, CR
3:15 – 4:30 pm	Compliance Review (cont.)	HVS Meeting Room 1	DM, TG, AS, DB
4:30 – 5pm	Auditors Revision Day 2	HVS Meeting Room 1	DM, TG

DAY 3 – Wednesday, 4 December 2019

Time	Description	Location	Attendees
8 – 8:15am	Day 2 Overview Meeting <ul style="list-style-type: none"> • Confirm arrangements for Day 3 	HVS Meeting Room 1	DM, TG, DB
8.15 - 10.15am	Mining Tenements Review <ul style="list-style-type: none"> • HVO South Mining Authorities 	HVS Meeting Room 1	DM, TG, KW
10 am – 3 pm	Acoustic Specialist Site Visit <ul style="list-style-type: none"> • Noise & Blast consent conditions • Management Plan • EA comparison • Field visit (as required) 	Field	MB, DB, Maintenance and Blast engineer as required
10:15am – 12pm	Compliance Review <ul style="list-style-type: none"> • EPL • HVO North Water licences 	HVS Meeting Room 1	DM, TG, AS, PB
12 – 12:15pm	Lunch	HVS Meeting Room 1	-
12:15 – 1:15pm	CHPP Discussion <ul style="list-style-type: none"> • Processing • Waste Management • Water Management 	Field/CHPP	DM, TG, AS, CHPP Rep

Time	Description	Location	Attendees
	<ul style="list-style-type: none"> Dust and Noise Management Rehabilitation Training and Communications CHPP Site Inspection 		
1:15 – 3pm	Compliance Review (cont.)	HVS Meeting Room 1	DM, TG, AS
3 – 3:15 pm	Auditor Brief discussion with Specialist	HVS Meeting Room 1	DM, TG, MB
3:15 – 4:30 pm	Compliance Review (cont.)	HVS Meeting Room 1	DM, TG, AS, DB
4:30 – 5pm	Auditors Revision Day 3	HVS Meeting Room 1	DM, TG

DAY 4 – Thursday, 5 December 2019

Time	Description	Location	Attendees
8 – 8:15am	Day 4 Overview Meeting <ul style="list-style-type: none"> Confirm arrangements for Day 4 	HVS Meeting Room 1	DM, TG, DB
8:15 – 9:30am	Mining/Technical Services Discussion <ul style="list-style-type: none"> Processing Waste Management Water Management Dust and Noise Management Rehabilitation Training and Communications 	HVS Meeting Room 1	DM, TG, DB, Tech Services and Mining Rep as required
9:30am – 1pm	Outstanding Items <ul style="list-style-type: none"> Discussion of outstanding issues 	HVS Meeting Room 1	DM, TG, AS, DB
1 – 2pm (TBC)	Closeout Preparation <ul style="list-style-type: none"> Lunch Auditors Revision and Preparation for Closeout Meeting 	HVS Meeting Room 1	DM, TG
2 – 3pm (TBC Day 3)	Close Out Meeting <ul style="list-style-type: none"> Overview of findings Confirmation of outstanding items or documents required Confirm Audit Completion Process 	HVS Meeting Room 1	All

APPENDIX D
DPIE Certification Form

Independent Environmental Audit Submission Form	
Project	
Consent No.:	PA 06_0261 (as modified) and DA 450-10-2003 (as modified)
Description of Project:	Hunter Valley Operations (South and North)
Project Address:	1011 Lemington Road, Liddell NSW 2333
Proponent	Hunter Valley Operations Pty Limited
Proponent Address:	1011 Lemington Road, Liddell NSW 2333
Independent Audit	
Title of Audit:	Hunter Valley Operations Independent Environmental Audit
Certificate	<p>I certify that I have prepared the contents of the attached independent audit and to the best of my knowledge:</p> <ul style="list-style-type: none"> • It is in accordance with relevant approval condition(s) • I have acted professionally, accurately and in an unbiased manner in conducting the audit • I am not related to any owner or operator of the project as a spouse, partner, parent, child, sibling, employer, employee, business partner, in sharing a common employer, or in a contractual arrangement outside the audit • I do not have any pecuniary interest in the project, including where there is a reasonable likelihood or expectation of appreciable financial gain or loss to me or to a person to whom I am related • Neither I nor my employer have provided consultancy services for the project that were subject to this audit • 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 project, their employees or any interested party. I have not knowingly allowed, nor intend to allow my colleagues to do so.
Signature:	
Name:	Dianne Munro
Address:	6/127-129 John Street, Singleton NSW 2330
Email Address:	dmunro@hansenbailey.com.au
Auditor Certification (Body, No. Grade):	Auditor for Environmental Management, EMS and Compliance Audits . Exemplar Global No. 107622
Date:	24 February 2020

APPENDIX E
Compliance Tables

Table A
HVO South Project Approval 06_0261 Conditions

Blue type represents December 2009 mod

Red type represents 3 February 2012 mod

Green type represents 31 October 2012 mod

Purple type represents 31 October 2012 mod

LightBlue type represents 28 February 2018 mod

Cond	06_0261 Condition	Status	Evidence
SCHEDULE 2 – ADMINISTRATIVE CONDITIONS			
Obligation to Minimise Harm to the Environment			
2.1	The Proponent must implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the project.	Compliant	Known works and activities carried out generally in accordance with PA 06_0261, DA 450-10-2003 EPL 640, and ML to prevent and/or minimise any harm to the environment that may result from construction, operation, or rehabilitation of the project. No environmental harm was advised or identified during the audit period. See further detail in this table.
Terms of Approval			
2.2	The Proponent must carry out the project generally in accordance with the: (a) EA; (b) statement of commitments; (c) EA (Mod 1); (d) EA (Mod 2); (e) EA (Mod 3); (f) EA (Mod 4); (g) EA (Mod 5); and (h) project layout.	Compliant	Key mining parameters are discussed in various conditions below. HVO South ROM in-pit storage and rehandle area constructed in 2019 was interrogated as it is not specifically described in the EAs. The HVO South ROM in-pit storage has an appropriate capacity of 100,000t ROM, is temporary in nature and will be removed within 18 months of construction (in 2020) consistent with Glencore’s legal advice dated 21/1/20 (regarding a proposed 400,000 t in pit ROM stockpile at West Pit). HVO indicates that that this activity is also undertaken at West Pit under generally the same conditions as such is considered “generally in accordance with” the EAs. Further, the HVO South MOP describes "ROM coal from HVO South is trucked via purpose built internal haul roads to HVCPP" and does not appear to describe the activities at the HVO South ROM in-pit storage and rehandle area. Further, the HVO South MOP describes "ROM coal from HVO South is trucked via purpose built internal haul roads to HVCPP" and does not appear to describe the activities at the HVO South ROM in-pit storage and rehandle area.

Cond	06_0261 Condition	Status	Evidence
			<p>Recommended MOPs describe temporary in pit coal stockpiling and relevant mitigation.</p> <p>Elevated levels of dust were being generated in the area during the site visit component (see Plate 1) compared to other areas of the site where dust was well managed.</p> <p>Viewed MOD5 EA and air quality technical reports however no evidence was available to confirm in-pit coal stockpiling has been assessed for air quality impacts or assessed. Viewed GDP (GD-0083) dated 29/5/19 which includes the assessment of this ROM stockpile which states the task is permitted under existing approvals.</p> <p>See additional comments on air quality mitigation at condition Sch 3 Cond 23.</p>
2.2A	The Proponent must carry out the project in accordance with the conditions of this approval.	Not Compliant	Some non-compliances were identified as discussed below.
2.3	If there is any inconsistency between the documents listed in condition 2, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.	Compliant	None have been identified as part of this audit. AS confirmed none identified by HVO.
2.4	The Proponent must comply with any reasonable and feasible requirement/s of the Secretary arising from the Department's assessment of: (a) any reports, plans, programs, strategies or correspondence that are submitted in accordance with this approval; and (b) the implementation of any actions or measures contained in these reports, plans, programs, strategies or correspondence.	Compliant	As stated within management plans below.
Limits on Approval			
2.5	Mining operations may take place for a period of 21 years from the date of this approval. <i>Note: Under this approval, the Proponent is required to</i>	Compliant	Approval was granted to PA 06_0231 on the 24 March 2009. Mining operations may take place until 24 March 2030.

Cond	06_0261 Condition	Status	Evidence
	<i>rehabilitate the site and carry out any additional undertakings to the satisfaction of both the Secretary and DRG. Consequently, this approval will continue to apply in all other respects other than the right to conduct mining operations until the rehabilitation of the site and those additional undertakings have been carried out satisfactorily.</i>		The MOP Section 2.3.2 confirms no mining operations are scheduled under this approval beyond this date.
2.6	The Proponent must not extract more than 20 million tonnes of ROM coal a year from the site.	Compliant	2019 YTD – 12.7 Mt ROM with an EOY forecast of 13.6 Mt of ROM 2018 AR – Section 4.1.2 states 11.9 Mt ROM. 2017 AR – Section 4.1.2 states 13.42 Mt ROM. 2016 AR – Section 4.1.2 states 16.0 Mt ROM.
Management Plans/Monitoring Programs			
2.7	<i>Deleted</i>		N/A
2.8	The Proponent must ensure that monitoring programs, management plans and the Environmental Management Strategy, as in existence at the date of this approval in December 2008, continue to be implemented (to the satisfaction of the Secretary) until replaced by monitoring programs and management plans approved in accordance with the conditions of this approval.	Not Triggered	Management plans have been superseded and re-approved several times since 2008. This condition is no longer applicable.
Surrender of Consent			
2.9	Within 12 months of the date of this approval, the Proponent must surrender all existing development consents and existing use rights associated with HVO South's mining operations and related facilities in accordance with clause 97 of the EP&A Regulation.	Not Triggered	Completed (Refer to 2016 IEA).
2.9A	<i>Deleted</i>	N/A	N/A
Structural Adequacy			
Demolition			
2.11	The Proponent must ensure that all demolition work on site is carried out in accordance with <i>Australian Standard AS 2601-2001: The Demolition of Structures</i> , or its latest version.	Not Triggered	2017 AR- Section 8.11 states no renovations or removals occurred; 2018 AR – Section 8.3 states no renovations or removals occurred; No demolition work was completed during the audit period (per comms AS).

Cond	06_0261 Condition	Status	Evidence
Operation of Plant and Equipment			
2.12	The Proponent must ensure that all the plant and equipment used on site, or to transport coal from the site, is: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	Compliant	Viewed 2016,2017 AR Section 11 – No official cautions, warning letters, penalty notices or prosecution proceedings in relation to plant and equipment. Viewed 2018 AR Section 11.1.2 which indicated the Knodlers Lane blast monitor failed to capture complete blast monitoring results for two blasts initiated in the Cheshunt Pit. An investigation into the cause of the miscapture was undertaken, indicating that the malfunction of the unit is suspected to have been caused by water ingress or lightning /power surges, over the week preceding the blast. A second monitor closer to the mine recorded blasting results below criteria which would indicate that the Knodlers lane blast monitor would not have recorded an exceedance. Software has since been installed on all blast monitors that assist with rapid default detection in order to prevent any reoccurrences. Viewed Maintenance History Report (Daracon) dated 21/11/19 servicing records for equipment. Viewed ‘HVO drill Maintenance Plan Items.xls’ spreadsheet for Drill 213 and work that has been completed on the drill. Including water injection pump maintenance. Viewed SKF 250hr Running Checks template that lists the maintenance checklist of the 250hr service. Confirmed it includes dust suppression pumps and sprays and dust curtain. Refer to Schedule 3 Condition 50 relating to operation of trucks transporting coal offsite for further discussion. Site visit photographs of the HVCHPP workshop and related infrastructure to be maintained and operating in an efficient manner (see Plates 2 & 3)
Development Contributions			
2.13	Within 12 months from the date of this approval (unless otherwise agreed by the Secretary), the Proponent must enter into an agreement with Singleton Council to provide development contributions to Council for the project, in accordance with Division 6 of Part 4 of the EP&A Act.	Not Triggered	VPA Completed (verified within 2013 IEA). Viewed original approval with Singleton Council dated 15/3/10 which does not require any ongoing payments.

Cond	06_0261 Condition	Status	Evidence
	If the Proponent and Council cannot agree on the level or composition of the development contributions, then either party may refer the matter to the Secretary for resolution.		
Dispute Resolution			
2.14	In the event that the Proponent and the Council or a Government agency, other than the Department, cannot agree on the specification or requirements of this approval, the matter shall be referred by either party to the Secretary for resolution, whose determination of the disagreement shall be final and binding on the parties.	Not Triggered	No matters were referred to the Secretary during the audit period (per comms AS).
Evidence of Consultation			
2.15	<p>Where conditions of this approval require a document to be prepared in consultation with an identified party, the Proponent must:</p> <p>(a) consult with the relevant party prior to submitting the subject document to the Secretary for approval; and</p> <p>(b) provide details of the consultation undertaken including:</p> <ul style="list-style-type: none"> a description of how matters raised by those consulted have been resolved to the satisfaction of both the Proponent and the party consulted; and details of any disagreement remaining between the party consulted and the Proponent, and how the Proponent has addressed the matters not resolved. 	Not Compliant	Most requirements for this condition were met. Sch 3 Cond 60 where no evidence of correspondence with Singleton Council or NSW RFS has been provided.
Compliance			
2.16	The Proponent must ensure that all employees, contractors and sub-contractors are made aware of, and instructed to comply with, the conditions of this approval relevant to activities they carry out in respect of the project.	Compliant	Site Induction dated 14/6/17 includes information relating to the conditions of this consent. Sighted site induction presentation last updated 14/6/17 which provides overview of key environmental issues. Recommend update for new ownership and systems and regular review of environmental

Cond	06_0261 Condition	Status	Evidence						
			<p>components of this induction. Viewed HVO Supervisor Training - Environmental Risks v2.pdf which provides training for supervisors. Viewed training assessment template for supervisors to fill out on completion of training. Viewed example completed forms following dispatch training dated 15/1/19 and 18/1/19. Viewed HVO site Familiarisation Checklist.docx template which includes information on GDPs and waste. Recommend finalisation of updating HVO Site Familiarisation to include Aboriginal and cultural heritage information and other environmental issues not included. Recommend the implementation of regular refresher training rather than only induction as proposed in 2020 (AS pers comms).</p>						
SCHEDULE 3 – SPECIFIC ENVIRONMENTAL CONDITIONS									
AQCQUISITION OF AFFECTED PROPERTIES									
Acquisition Upon Request									
3.1	<p>Upon receiving a written request for acquisition from the owner of the land listed in Table 1, the Proponent must acquire the land in accordance with the procedures in conditions 7-9 of Schedule 4.</p> <p><i>Table 1: Land subject to acquisition upon request</i></p> <table border="1"> <tbody> <tr> <td>16 - Algie</td> <td>38 - Henderson</td> </tr> <tr> <td>32 - Algie (Curlewis)</td> <td>45 - Kelly</td> </tr> <tr> <td colspan="2">Keys (vacant land - Lot 2 DP 770905 and Lot 84 DP 753792)</td> </tr> </tbody> </table> <p>Notes:</p> <ul style="list-style-type: none"> The land numbers are as described in the EA, except the one with an asterisk which is as described in EA (Mod 5), and as shown in Appendix 4. Land numbers 16, 32, 38 and Keys are now mine-owned. Keys vacant lots are now consolidated as a single lot, Lot 84 DP 1124139. Land number 45 is referenced as 77 in EA (Mod 5). The Proponent is only required to acquire land number 45 if the owner of this land no longer has voluntary land acquisition 	16 - Algie	38 - Henderson	32 - Algie (Curlewis)	45 - Kelly	Keys (vacant land - Lot 2 DP 770905 and Lot 84 DP 753792)		Compliant	<p>No requests for acquisitions within audit period (AS pers comms). All landowners are now mine owned. Recommend updating Table 1 in the next Modification to reflect this change. Viewed letter to Kelly dated 26/6/09 stating the right to request Coal & Allied to implement reasonable and feasible noise mitigation measures at the residence located on the land. However following Modification 5 approval on 28/2/18 Kelly has been added to land subject to land acquisition however the property is now owned by Wambo Mine. Viewed certificate of title to confirm ownership dated 15/5/19.</p>
16 - Algie	38 - Henderson								
32 - Algie (Curlewis)	45 - Kelly								
Keys (vacant land - Lot 2 DP 770905 and Lot 84 DP 753792)									

Cond	06_0261 Condition	Status	Evidence																																																															
	rights under the planning approvals for Wambo Mine or Warkworth Mine.																																																																	
NOISE																																																																		
Noise Impact Assessment Criteria																																																																		
3.2	<p>The Proponent must ensure that the noise generated by the project does not exceed the noise impact assessment criteria in Table 2 at any residence on privately-owned land, or on more than 25% of any privately-owned land.</p> <p><i>Table 2: Noise impact assessment criteria dB(A)</i></p> <p><i>Table 2: Noise impact assessment criteria dB(A)</i></p> <table border="1"> <thead> <tr> <th rowspan="2">Land Number / Receiver</th> <th>Day</th> <th>Evening</th> <th>Night</th> </tr> <tr> <th>L_{Aeq(15 minute)}</th> <th>L_{Aeq(15 minute)}</th> <th>L_{Aeq(15 minute)}</th> </tr> </thead> <tbody> <tr> <td>Hunter Valley Gliding Club (when in use)</td> <td>55</td> <td>55</td> <td>55</td> </tr> <tr> <td>7- Stapleton (Cheshunt East)</td> <td>41</td> <td>41</td> <td>41</td> </tr> <tr> <td>10 - Moses (Wandewoi)</td> <td>37</td> <td>37</td> <td>37</td> </tr> <tr> <td colspan="4">Maison Dieu residences</td> </tr> <tr> <td>16 - Algie</td> <td></td> <td></td> <td></td> </tr> <tr> <td>32 - Algie (Curlewis)</td> <td>42</td> <td>42</td> <td>42</td> </tr> <tr> <td>5 - Bowman, 47 - Moxey, 61 - Shearer and all other land on Shearer's Lane</td> <td>41</td> <td>41</td> <td>41</td> </tr> <tr> <td>34 - Ernst</td> <td>40</td> <td>40</td> <td>40</td> </tr> <tr> <td>50 - Nelson</td> <td></td> <td></td> <td></td> </tr> <tr> <td>24 - Clifton and Edwards and residences located within 250 metres of this residence, not otherwise listed in this table</td> <td>40</td> <td>40</td> <td>40</td> </tr> <tr> <td>Maison Dieu residences within 1 kilometre of Shearers Lane, not otherwise listed in this table</td> <td>39</td> <td>39</td> <td>39</td> </tr> <tr> <td>127* - Riley</td> <td>37</td> <td>37</td> <td>37</td> </tr> <tr> <td>All other Maison Dieu residences</td> <td>35</td> <td>35</td> <td>35</td> </tr> <tr> <td colspan="4">Jerrys Plains Road residences</td> </tr> </tbody> </table>	Land Number / Receiver	Day	Evening	Night	L _{Aeq(15 minute)}	L _{Aeq(15 minute)}	L _{Aeq(15 minute)}	Hunter Valley Gliding Club (when in use)	55	55	55	7- Stapleton (Cheshunt East)	41	41	41	10 - Moses (Wandewoi)	37	37	37	Maison Dieu residences				16 - Algie				32 - Algie (Curlewis)	42	42	42	5 - Bowman, 47 - Moxey, 61 - Shearer and all other land on Shearer's Lane	41	41	41	34 - Ernst	40	40	40	50 - Nelson				24 - Clifton and Edwards and residences located within 250 metres of this residence, not otherwise listed in this table	40	40	40	Maison Dieu residences within 1 kilometre of Shearers Lane, not otherwise listed in this table	39	39	39	127* - Riley	37	37	37	All other Maison Dieu residences	35	35	35	Jerrys Plains Road residences				Not Compliant	<p>Bridges Acoustics reviewed the following:</p> <p>2019</p> <p>Monthly Environmental Monitoring Reports (January to September): measured noise levels exceeded LAeq,15min criteria at Maison Dieu by 3 dBA 7 May 2019 with a recording of 42 LAeq,15min. As per Appendix B Section 5 of the NMP if an exceedance is recorded, a second reading is to be taken within 75mins, if this second reading does not exceed the criteria this is not deemed a non-compliance. The second reading taken within 75mins was recorded at 37 LAeq,15min, which is within the criteria. Appendix B Section 9 stipulates reporting to DPIE is only required for non-compliances. As noise levels have exceeded the criteria listed in Table 2 of this condition is deemed non-compliant. As per Section 4 of Appendix B of the NMP, HVO is only considered to be non-compliant if criteria exceed the relevant criteria on a follow up measurement taken within 75mins and therefore not required to report to DPIE as an exceedance.</p> <p>2018</p> <p>Annual Review Section 6.2.4: measured noise levels exceeded LA1,1min criteria at Kilburnie South by 5 dBA on 11 October 2018 with a recording of 50 LAeq,15min. As per Appendix B Section 5 of the NMP it was re measured within 75mins. Monthly Environmental Monitoring Report shows five recordings were taken with three measurements were not able to be determined, the remaining two measurements were below the criteria of 45 LAeq,15min. As noise levels have exceeded the criteria listed in Table 2 of this condition is deemed non-compliant. As per Section 4 of Appendix B of the NMP, HVO is only considered to be non-compliant if criteria exceed the relevant criteria on a follow up measurement taken</p>
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	<p>(including certain meteorological conditions) of the NSW Industrial Noise Policy (2000, or its latest version).</p> <ul style="list-style-type: none"> The noise limits in Table 2 are to be applied in accordance with the limitations and requirements set out in Appendix 4A. Receivers 7, 10, 16, 32, 38, 23 are now mine-owned. 		
Land Acquisition Criteria			
3.3	<i>Deleted</i>	N/A	N/A
Additional Noise Mitigation Measures			
3.4	<p>Upon receiving a written request from:</p> <ul style="list-style-type: none"> an owner of land listed in Table 1 (unless the landowner has requested acquisition or where a negotiated noise agreement established under this approval is in place); or an owner of land listed in Table 4 (except where a negotiated noise agreement established under this approval is in place) <p>the Proponent must implement reasonable and feasible noise mitigation measures (such as double glazing, insulation, and/or air conditioning) at any residence on the land in consultation with the landowner. These measures must be consistent with the measures outlined in the Voluntary Land Acquisition and Mitigation Policy for State Significant Mining, Petroleum and Extractive Industry Development (NSW Government, 2014), as amended, and proportionate to the level of predicted impact.</p> <p>If within 3 months of receiving this request from the landowner, the Proponent and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.</p> <p>Within 3 months from the date of this approval, the Proponent must notify all applicable landowners that they are entitled to receive</p>	Compliant	<p>As per Sch 3 Cond 1 MOD5 DPIE Assessment Report Figure 6 defines the additional properties afforded mitigation rights under the approval. Additional properties afforded mitigation rights under MOD5 include: ID 244: T&S Mills ID 245: C Maskey ID 246: P&C Burley ID 247: T&S Zanardi</p> <p>Viewed email from AS confirming offer of mitigation letters were sent out to landholders on 7/2/17. Viewed excel spreadsheet (Letter recipients - Voluntary ZoM 170119) which confirms all four landholders listed above were sent mitigation letters. Viewed example 'Offer of Mitigation HVO South' letter which satisfies this condition.</p>

Cond	06_0261 Condition	Status	Evidence														
	<p>noise mitigation measures, to the satisfaction of the Secretary.</p> <p><i>Table 4: Land subject to additional noise mitigation upon request</i></p> <table border="1"> <tr><td>7 – Stapleton (Cheshunt East)</td></tr> <tr><td>Maison Dieu residences</td></tr> <tr><td>17 – Algie</td></tr> <tr><td>5 – Bowman, 47 – Moxey, 61 – Shearer and all other land on Shearer’s Lane</td></tr> <tr><td>34 – Ernst</td></tr> <tr><td>50 – Nelson</td></tr> <tr><td>24 – Clifton and Edwards and residences located within 250 metres of this residence, not otherwise listed in this table</td></tr> <tr><td>Maison Dieu residences within 1 kilometre of Shearers Lane</td></tr> <tr><td>Jerrys Plains Road residences</td></tr> <tr><td>36 – Smith (ex Garland)</td></tr> <tr><td>3 – Elisnore, 4 – Muller, 31 – Cooper (Kilburnie)</td></tr> <tr><td>310* – Northcote, 312* – Carmody, 317* – Gee and 463* – Carter</td></tr> <tr><td>Warkworth residences</td></tr> <tr><td>All privately-owned Warkworth residences</td></tr> </table> <p>Notes:</p> <ul style="list-style-type: none"> The land numbers and receiver references are as described in the EA, except those with an asterisk which are as described in EA (Mod 5), and as shown in Appendix 4. Land numbers 7 and 17 are now mine-owned and the remaining privately-owned Warkworth residence (45) is now listed in Table 1. 	7 – Stapleton (Cheshunt East)	Maison Dieu residences	17 – Algie	5 – Bowman, 47 – Moxey, 61 – Shearer and all other land on Shearer’s Lane	34 – Ernst	50 – Nelson	24 – Clifton and Edwards and residences located within 250 metres of this residence, not otherwise listed in this table	Maison Dieu residences within 1 kilometre of Shearers Lane	Jerrys Plains Road residences	36 – Smith (ex Garland)	3 – Elisnore, 4 – Muller, 31 – Cooper (Kilburnie)	310* – Northcote, 312* – Carmody, 317* – Gee and 463* – Carter	Warkworth residences	All privately-owned Warkworth residences		
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3.5	<p>The Proponent must:</p> <p>(a) take all reasonable steps to minimise construction, operational, low frequency, road and on-site rail noise of the project;</p> <p>(b) take all reasonable steps to minimise the noise impacts of the project during meteorological conditions when the noise criteria in this approval do not apply (see Appendix 4);</p> <p>(c) operate a comprehensive noise management system that uses a combination of predictive meteorological</p>	Compliant	<p>Bridges Acoustics completed the following review:</p> <p>(a): NMP Sections 4.7 and 4.8 describe noise mitigation measures for operational noise, including low frequency noise. Annual Reviews (2016 – 2018) Sections 6.2.1 to 6.2.3 describe real time noise management measures, including a summary of equipment downtime due to active noise management.</p> <p>No evidence is available to demonstrate best practice road and rail noise management, however there are no private receptors in the vicinity of Lemington Road and no rail loading equipment associated with HVO South therefore specific management measures are not</p>														

Cond	06_0261 Condition	Status	Evidence
	<p>forecasting and real-time noise monitoring data to guide the day to day planning of mining operations, and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this approval;</p> <p>(d) carry out regular noise monitoring to determine whether the project is complying with the relevant conditions of this approval; and</p> <p>(e) regularly assess the noise monitoring data, and modify or stop operations on the site to comply with the relevant conditions of this approval, to the satisfaction of the Secretary.</p>		<p>required.</p> <p>(b): Annual Reviews (2016-2018) Section 6.2.3 describes active noise monitoring and management procedures including equipment downtime to maintain compliance with noise criteria.</p> <p>(c): NMP Sections 4.7 and 4.8 describe noise mitigation measures. Annual Reviews (2016 – 2018) Sections 6.2.1 to 6.2.3 describe real time noise management measures, including a summary of equipment downtime due to active noise management.</p> <p>(d): NMP Section 6.3 and Appendix B describe monthly attended noise surveys to determine compliance with relevant conditions.</p> <p>(e): NMP Section 6.2 describes reactive noise management measures including responses to noise level alarms raised by the real time noise monitoring system.</p> <p>Viewed SPL assessments by Global Acoustics for equipment Komatsu 830E DC (unit 456 and 457) dated 18 April 2018 which showed the overall compliance for both units.</p>
Noise Management Plan			
3.6	<p>The Proponent must prepare a Noise Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be submitted to the Secretary for approval within 3 months of the determination of Modification 5, unless otherwise agreed by the Secretary;</p> <p>(b) be prepared in consultation with the EPA by a suitably qualified and experienced person/s;</p> <p>(c) describe the measures to be implemented to ensure:</p> <ul style="list-style-type: none"> • compliance with the noise criteria and operating conditions in this approval; • best practice management is being employed; and • the noise impacts of the project are minimised during meteorological conditions under which the noise criteria in this approval do not apply; 	Compliant	<p>Bridges Acoustics completed the following review:</p> <p>(a): Appendix D of the current NMP (February 2019) provides evidence of approval from DP&E.</p> <p>(b): NMP Appendix A provides evidence of consultation with the EPA.</p> <p>(c): NMP Section 6.2 describes the RTNMS including trigger levels and responses to alarms.</p> <p>(d): NMP Section 6.2.4 includes a description of the RTNMS, including Table 3 containing a noise TARP and Figure 2 containing responses to each alarm level.</p> <p>(e) NMP Section 6.3 describes monthly attended noise monitoring, with results in Monthly Monitoring Reports and in Annual Reviews. NMP Section 6.2 describes the RTNMS and associated procedures. NMP Section 7 and Appendix B describes the noise monitoring procedure and compliance evaluation protocol.</p>

Cond	06_0261 Condition	Status	Evidence						
	<p>(d) describe the noise management system in detail; and</p> <p>(e) include a monitoring program that:</p> <ul style="list-style-type: none"> • uses a combination of real-time and supplementary attended monitoring to evaluate the performance of the project; • includes a program to calibrate and validate the real-time noise monitoring results with the attended monitoring results over time; • adequately supports the noise management system; and • includes a protocol for identifying noise incidents and notifying the Department and relevant stakeholders of any such incident; and <p>(f) include a protocol that has been prepared in consultation with the owners of nearby mines to minimise cumulative noise impacts.</p> <p>The Proponent must implement the Noise Management Plan as approved by the Secretary.</p>		<p>Annual Reviews 2016-2018 Section 6.2 compares noise monitoring results to noise model predictions, with generally good correlation.</p> <p>(f): NMP Section 3.2 describes informal agreements with the operators of nearby mines to share data and manage cumulative noise levels. Viewed Inter-mine Environment & Community Interaction Meeting minutes dated 29/5/19 including representatives from Rix's Creek, Ashton, Wambo, Integra, Ravensworth and Mt Owen / Glendell. Meeting minutes which determined this meeting would be deemed the protocol for managing cumulative impacts between mines and will be scheduled quarterly and held at Ashton Coal.</p>						
BLASTING AND VIBRATION									
Airblast Overpressure Impact Assessment Criteria									
3.7	<p>The Proponent must ensure that the airblast overpressure level from blasting at the projects does not exceed the criteria in table 6 at any residence on a private owned land.</p> <p><i>Table 6: Airblast overpressure impact assessment criteria</i></p> <table border="1"> <thead> <tr> <th>Airblast overpressure level (dB(Lin Peak))</th> <th>Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td>115</td> <td>5% of the total number of blasts over a period of 12 months</td> </tr> <tr> <td>120</td> <td>0%</td> </tr> </tbody> </table> <p>However, if the Proponent has a written negotiated blast agreement with the owner of the relevant residence on privately-owned land,</p>	Airblast overpressure level (dB(Lin Peak))	Allowable exceedance	115	5% of the total number of blasts over a period of 12 months	120	0%	Not Compliant	<p>Bridges Acoustics completed the following review:</p> <p>2019</p> <p>Monthly Environmental Monitoring Reports (January to September): measured overpressure levels exceeded the 120 dBL overpressure criterion at Maison Dieu on 28 May 2019. Two expert consultant reviews deemed that the result was affected by wind/local influence and was not deemed to be a noncompliance as per Appendix D of the Blast Management Plan (per comms DB) but not sighted. There were additional exceedances of the 115 dB dBLPk criterion, however such events occurred less than 5% of all blasts in each year which complies with this condition.</p>
Airblast overpressure level (dB(Lin Peak))	Allowable exceedance								
115	5% of the total number of blasts over a period of 12 months								
120	0%								

Cond	06_0261 Condition	Status	Evidence						
	<p>and a copy of this agreement has been forwarded to the Department and EPA, then the Proponent may exceed the airblast overpressure level in Table 6 in accordance with the negotiated agreement.</p>		<p>Following the May 2019 overpressure exceedance at Maison Dieu, HVO installed a second nearby blast monitor away from the control building.</p> <p>2018 Annual Review Section 6.3.2: measured overpressure levels exceeded the 120 dBL criterion at two locations (Moses Crossing, Jerrys Plains) on 17 January 2018.</p> <p>2017 Annual Review Section 6.3.2: measured overpressure levels complied with relevant criteria. Viewed section 11.3 (Incidents and Non-compliances) within 2017 Annual which contained a summary of a noise exceedance however deemed as compliant.</p> <p>2016 Annual Review (1 November to 31 December) Section 6.3.2: measured overpressure levels complied with relevant criteria. Recommend avoiding possible overpressure reflection from the control building and resultant uncertainty regarding overpressure levels, the second Maison Dieu monitor should be considered the primary monitor in this area.</p>						
Ground Vibration Impact Assessment Criteria									
3.8	<p>The Proponent must ensure that the ground vibration level from blasting at the project does not exceed the criteria in Table 7, at any residence on privately-owned land.</p> <p><i>Table 7: Ground vibration impact assessment criteria</i></p> <table border="1"> <thead> <tr> <th>Peak particle velocity (mm/s)</th> <th>Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>5% of the total number of blasts over a period of 12 months</td> </tr> <tr> <td>10</td> <td>0%</td> </tr> </tbody> </table> <p><i>Note: Vibration must be measured in accordance with applicable guidelines, including EPA's Assessing Vibration: A Technical Guideline (2006).</i></p> <p>However, if the Proponent has a written negotiated blast agreement with the owner of the relevant residence on privately-owned land, and a copy of this agreement has been forwarded to the</p>	Peak particle velocity (mm/s)	Allowable exceedance	5	5% of the total number of blasts over a period of 12 months	10	0%	Compliant	<p>Bridges Acoustics completed the following review:</p> <p>2019 Monthly Environmental Monitoring Reports (January to September): measured vibration levels complied with relevant criteria.</p> <p>2018 Annual Review Section 6.3.2: measured vibration levels complied with relevant criteria.</p> <p>2017 Annual Review Section 6.3.2: measured vibration levels complied with relevant criteria.</p> <p>2016 Annual Review (1 November to 31 December) Section 6.3.2: measured</p>
Peak particle velocity (mm/s)	Allowable exceedance								
5	5% of the total number of blasts over a period of 12 months								
10	0%								

Cond	06_0261 Condition	Status	Evidence
	Department and EPA, then the Proponent may exceed the ground vibration level in Table 7 in accordance with the negotiated agreement.		vibration levels complied with relevant criteria.
3.9	For St Philip's Church and the outbuildings at Archerfield, the Proponent must ensure that ground vibration peak particle velocity generated by the project does not exceed 5 mm/s, or as otherwise approved by the Secretary .	Compliant	BMP Section 4.2.2 discusses blasting impacts at St Phillips Church and the Archerfield outbuildings. The Church is monitored with HVO's Warkworth blast monitor, while the Archerfield outbuildings are covered by the Maison Dieu monitor. Annual Reviews 2016 – 2018 and Monthly Monitoring Reports for January to September 2019 indicate vibration levels have remained well below 5 mm/s at all monitoring locations.
Blasting Hours			
3.10	The Proponent must only carry out blasting on site between 7am and 6pm Monday to Saturday inclusive. No blasting is allowed on Sundays, public holidays, or at any other time without the written approval of the Secretary .	Not Compliant	Bridges Acoustics completed a detailed review of spreadsheets containing blast data for the period January 2017 to September 2019 indicates compliance with this condition except for one blast on Easter Saturday 2017 (which was officially considered a public holiday in 2017) .
Operating Conditions			
3.11	During mining operations on site, the Proponent must implement best blasting practice to: (a) protect the safety of people, property, public infrastructure, and livestock; (b) minimise the dust and fume emissions from blasting at the project; (c) minimise the frequency and duration of any road closures for blasting, and use all reasonable efforts to avoid road closures during peak traffic periods; (d) use all reasonable efforts to co-ordinate the timing of blasting at the site with any nearby mines to minimise cumulative blasting impacts; and (e) carry out regular blast monitoring to determine	Compliant	Bridges Acoustics completed the following review: (a): BMP Sections 6.2 and 4.2.2 describe management measures including detailed blast design, meteorological assessments, notification to potentially affected landowners and occupants, closure of public roads within 500 m from a blast site, exclusion zones for people, equipment and livestock. (b): BMP Section 6.2 discusses blast fume management and Appendix B contains a blast fume management plan. (c): BMP Appendix C contains road closure management plans which include frequency and duration limits for road closures. (d): BMP Section 6.8 describes a cooperation protocol with the operators of nearby mines to minimise cumulative impacts. (e): BMP Appendix D contains a detailed blast monitoring plan.

Cond	06_0261 Condition	Status	Evidence
	<p>whether the project is complying with the relevant conditions of this approval, to the satisfaction of the Secretary.</p>		
3.12	<p>The Proponent may carry out a maximum of:</p> <p>(a) 3 blasts a day; and</p> <p>(b) 15 blasts a week</p> <p>on the site</p> <p>This condition does not apply to blasts that generate ground vibration of 0.5 mm/s or less at any residence on privately-owned land, or to blast misfires or blasts required to ensure the safety of the mine, its workers or the general public.</p> <p>Notes:</p> <ul style="list-style-type: none"> For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired in quick succession in a discrete area of the mine. For the avoidance of doubt, should an additional blast be required after a blast misfire, this additional blast and the blast misfire are counted as a single blast. 	Compliant	Bridges Acoustics completed a detailed review of spreadsheets containing blast data for the period January 2017 to September 2019 indicates compliance with this condition.
3.13	<p>The Proponent must not undertake blasting on the site within 500 metres of any public road or any land outside the site not owned by the Proponent, unless the Proponent has:</p> <p>(a) a written agreement with the owner/s of the relevant public road or land to allow blasting to be carried out closer to the public road or land, and the Proponent has advised the Department in writing of the terms of this agreement; or</p> <p>(b) demonstrated, to the satisfaction of the Secretary, that the blasting can be carried out closer to the public road or land without compromising the safety of people or livestock or damaging the road or other</p>	Compliant	<p>BMP Appendix C contains road closure plans, which include Road Occupancy Licences from Roads and Maritime Services for the Golden Highway and approval from Singleton Council for Lemington Road. BMP Section 6.8 describes a cooperative agreement with Glencore for blasting near Ravensworth Operations and Cumnock No. 1 Colliery. Bridges Acoustics reviewed an updated 500m blast buffer plan prepared by HVO on 19 December 2019, land within the 500 m buffer and not owned by HVO includes:</p> <ul style="list-style-type: none"> Lot 175 DP 823775 owned by the State of NSW and used as a Travelling Stock Route (TSR). Section 6.2 of the BMP notes an arrangement with potential occupiers of the TRS and other stakeholders is in place, and an agreement with NSW Land Services

Cond	06_0261 Condition	Status	Evidence
	buildings and structures, and updated the Blast Management Plan to include specific mitigation measures to be implemented while blasting is being carried out within 500 metres of the road or land.		<p>covering this land has been viewed.</p> <ul style="list-style-type: none"> Lot 4 DP 1085145 owned by Wambo Coal. Section 3.2 of the BMP notes daily blasting plans are communicated to Wambo where relevant. <p>A section of the Hunter River and adjacent Crown Land is within 500 m. No evidence of Agreement in place for these areas. BMP describes control measures at Section 6.7 for blasting within 500 m of a public road and AS notes that this also applies to the area in question. AS also notes that the area is also highly inaccessible (i.e. accessible by Hunter River only). Recommend updating Blast Management Plan at Section 6.2, 6.3 or 6.7 to specifically describe Hunter River and Crown Land blocks within 500 m of blast area and controls in place so that an Agreement is not required as per (b).</p>
Road Closure			
3.14	<i>Deleted</i>	N/A	N/A
Public Notice			
3.15	<p>During mining operational on site, the Proponent must:</p> <p>(a) Notify the landowner/occupier of any residence within 2 kilometres of the mining area who registers an interest in being notified about the blasting schedule at the mine, or any other landowner nominated by the Secretary;</p> <p>(b) Operate a blasting hotline, or alternate system agreed to by the Secretary, to enable the public to get up-to-date information on the blasting schedule at the project;</p> <p>(c) Advertise the blasting hotline number in a local newspaper at least 4 times each year; and</p> <p>(d) Publish an up-to-date blasting schedule on its website to the satisfaction of the Secretary.</p>	<p>Compliant</p> <p>a) Closest private receiver (ID 45-Kelly) is >3km away from blasting and now mine owned by Wambo mine. The HVGC is within 2km however covered under the Concession and Mitigation Agreement 5/2/13 between Coal and Allied and the HVGC.</p> <p>b) Blasting hotline available with phone number available on HVO website.</p> <p>c) Viewed invoice from Singleton Argus from 10/4/19 which confirms advertising at least four times in 2019.</p> <p>d) Viewed website 21/11/19 which included an up to date weekly blasting schedule. It lists the hotline where you could receive daily updates. Viewed text message which lists location times and any road closures. Viewed publication of road closures in the Singleton Argus, notification via email and/or phone to landholders within 2km of blasting or have registered an interest in being notified and notification of road closures via signage on affected roads.</p>	

Cond	06_0261 Condition	Status	Evidence
			No community feedback or complaints were received during this time regarding the lack of updates on the hotline (per comms AS).
Property Inspections			
3.16	<p>At least 3 months prior to blasting within 2 kilometres of any privately-owned land, or any other landowner nominated by the Secretary, the Proponent must advise applicable landowners that they are entitled to a structural property inspection.</p> <p>If the Proponent receives a written request for a structural property inspection from the landowner, the Proponent must within 2 months of receiving this request and prior to blasting within 2 kilometres of the property:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to inspect the condition of any building or structure on the land, and recommend measures to mitigate any potential blasting impacts; and</p> <p>(b) give the landowner a copy of the property inspection report.</p> <p><i>Note: This condition does not operate so as to prevent blasting within the first 3 months of this approval as consents applying to the site contain similar provisions for the inspection or residences potentially affected by blasting operations.</i></p>	Compliant	<p>Viewed HVO blast 2km radius map JPG 'blasting zones +2km .jpg' which identifies the closest private land being the Hunter Valley Gliding Club land.</p> <p>Viewed Hunter Valley Gliding Club mitigation agreement dated 5 February 2013 which covers this condition for HVGC.</p> <p>The next closest private receiver is ID45-Kelly which is >3km further south west of the HVGC and outside of this condition however now mine owned by Wambo mine.</p> <p>No additional landowner has been nominated by the Secretary (per comms AS).</p>
Property Investigations			
3.17	<p>If any landowner of privately-owned land within 2 kilometres of blasting operations, or any other landowner nominated by the Secretary, claims that buildings and/or structures on his/her land have been damaged as a result of blasting at the project, the Proponent must within 3 months of receiving this claim:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment has been</p>	Not Triggered	No such request has been made during audit period. (per comms AS).

Cond	06_0261 Condition	Status	Evidence
	<p>approved by the Secretary, to investigate the claim; and</p> <p>(b) give the landowner a copy of the property investigation report.</p> <p>If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent must repair the damages to the satisfaction of the Secretary.</p> <p>If the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.</p> <p>If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Proponent or the landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Secretary for resolution.</p>		
Blast Management Plan			
3.18	<p>The Proponent must prepare a Blast Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be submitted to the Secretary for approval within 3 months of the determination of Modification 5, unless otherwise agreed by the Secretary;</p> <p>(b) be prepared in consultation with the EPA by a suitably qualified and experienced person/s;</p> <p>(c) describe the measures to be implemented to ensure compliance with the blasting criteria and conditions of this approval;</p> <p>(d) include a Road Closure Management Plan for any blasting within 500 metres of a public road, that has been prepared in consultation with relevant roads authorities and includes provisions for:</p> <ul style="list-style-type: none"> minimising the duration of closures, both on a per 	Compliant	<p>Bridges Acoustics completed the following review:</p> <p>(a): BMP Appendix G contains a letter from DP&E confirming approval of the latest version of the BMP.</p> <p>(b): BMP Appendix F contains a letter from EPA confirming consultation.</p> <p>(c): BMP Sections 5.2 and 6 describe management measures intended to result in compliance with relevant criteria and minimal impacts on other properties and landowners.</p> <p>(d): BMP Appendix C contains road closure plans, which include Road Occupancy Licences from Roads and Maritime Services for the Golden Highway and approval from Singleton Council for Lemington Road.</p> <p>(e): BMP Section 4.2.2 discusses Lemington Bridge which is assigned a vibration limit of 10 mm/s and predicted vibration levels considerably lower than this limit.</p> <p>(f): BMP Appendix D contains a detailed blast monitoring plan.</p> <p>Recommend revising and updating references in BMP Section 1</p>

Cond	06_0261 Condition	Status	Evidence																
	<p>event basis and weekly basis;</p> <ul style="list-style-type: none"> avoiding peak traffic periods as far as reasonable; and co-ordinating with nearby mines to minimise the cumulative effect of road closures; <p>(e) propose and justify any agreed alternative ground vibration limits for public or private infrastructure in the vicinity of the site (if relevant); and</p> <p>(f) include a monitoring program for evaluating and reporting on compliance with the relevant conditions of this approval.</p> <p>The Proponent must implement the Blast Management Plan as approved by the Secretary.</p>		<p>Tables 1 to 3, particularly Appendix references as such errors have been noted in all three tables.</p>																
AIR QUALITY																			
Air Quality Impact Assessment Criteria																			
3.19	<p>The Proponent must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not exceed the air quality impact assessment criteria listed in Table 8 at any residence on privately-owned land, the Hunter Valley Gliding Club (when in use) or on more than 25 percent of any privately-owned land.</p> <p><i>Table 8: Air quality impact assessment criteria</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td>^{a, c} 25 µg/m³</td> </tr> <tr> <td>24 hour</td> <td>^b 50 µg/m³</td> </tr> <tr> <td rowspan="2">Particulate matter < 2.5 µm (PM_{2.5})</td> <td>Annual</td> <td>^{a, c} 8 µg/m³</td> </tr> <tr> <td>24 hour</td> <td>^b 25 µg/m³</td> </tr> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td>^{a, c} 90 µg/m³</td> </tr> </tbody> </table> <p>Notes: Air quality impacts at HVGC are to be assessed in the</p>	Pollutant	Averaging period	Criterion	Particulate matter < 10 µm (PM ₁₀)	Annual	^{a, c} 25 µg/m ³	24 hour	^b 50 µg/m ³	Particulate matter < 2.5 µm (PM _{2.5})	Annual	^{a, c} 8 µg/m ³	24 hour	^b 25 µg/m ³	Total suspended particulate (TSP) matter	Annual	^{a, c} 90 µg/m ³	Not Compliant	<p>Reviewed 2019 data from January to 6 September 2019 only as the updated AQMP was effective from 6/9/19. The major change being the conditions under which exceedance criteria is to be reported. While previously if an exceedance above those listed in this condition an investigation would occur and if HVO's contribution was <75% it was deemed compliant (as per Appendix B, Section 6) the current AQMP Section 9.2 states in the event of a measured exceedance, HVO will investigate its contribution and if will act in accordance with the following "If HVO South has exceeded the incremental criteria, then the result will be reported to the Department in accordance with reporting requirements detailed in Section 10.1." (Section 9.2 Table 9 of the AQMP). Refer to AQMP Table 5 regarding what monitors are compliance monitors for the north and south sites. Figure 5 of the 2019 AQMP provides a representation of private receivers and the relevant compliance monitor showing its representative measurements.</p>
Pollutant	Averaging period	Criterion																	
Particulate matter < 10 µm (PM ₁₀)	Annual	^{a, c} 25 µg/m ³																	
	24 hour	^b 50 µg/m ³																	
Particulate matter < 2.5 µm (PM _{2.5})	Annual	^{a, c} 8 µg/m ³																	
	24 hour	^b 25 µg/m ³																	
Total suspended particulate (TSP) matter	Annual	^{a, c} 90 µg/m ³																	

Cond	06_0261 Condition	Status	Evidence
	<p>immediate vicinity of its residential facilities and/or clubhouse. Air quality limits are only applicable during times of use that have been notified by HVGC to the Proponent.</p> <p>a Total impact (i.e. incremental increase in concentrations due to the project plus background concentrations due to all other sources).</p> <p>b Incremental impact (i.e. incremental increase in concentrations due to the project on its own).</p> <p>c Excludes extraordinary events such as bushfires, prescribed burning, dust storms, fire incidents or any other activity agreed by the Secretary.</p> <p>However, if the Proponent has a written negotiated air quality agreement with any landowner or HVGC to exceed the air quality limits in Table 8 and a copy of this agreement has been forwarded to the Department and EPA, then the Proponent may exceed the air quality limits in Table 8 in accordance with the negotiated air quality agreement.</p>		<p>Reviewed Table 28 from the 2018 Annual Review which shows a comparison of cumulative predictions for Stage 2 portrayed within MOD 5 EA. This shows 24 hr PM10 values against the predicted maximum values returned results generally above the predicted Stage 2 for all monitoring locations. TSP Annual Averages exceeded modelled predictions in 2018 at all monitoring locations, however it is considered that this is a result of dry conditions that persisted through 2018.</p> <p>The following sections provide a breakdown of all exceedances.</p> <p>2019</p> <p>Viewed 2019 monthly environmental monitoring reports (Jan-Sept) with reference to the previously approved AQMP (Feb 2014) prior to management plan update. It is noted that the next IEA review should include a review from the change of management plan.</p> <p>PM10 HVAS exceedances of short term impact assessment criteria and summary of investigation findings all were <75% HVO contribution are listed below:</p> <p>2/1/19 – Kilburnie South (80µg/m³ – 51% HVO), Warkworth (68µg/m³ – deemed minimal due to wind direction) and Glider Club (51 µg/m³- deemed minimal due to wind direction)</p> <p>8/1/19 – Knodlers Lane HVAS recorded 59µg/m³ however investigation showed HVO contribution was 39.8% therefore compliant.</p> <p>26/1/19 - Kilburnie South (57µg/m³- 25% HVO) and Knodlers Lane (56µg/m³- 43% HVO).</p> <p>13/2/19 – Six HVAS units exceeded 24hr averages - Glider Club (98.0µg/m³- 19.5% HVO), Kilburnie South (73.0µg/m³- 3.7% HVO), Maison Dieu (71 µg/m³- deemed minimal due to wind direction), Knodlers Lane (118.0µg/m³-36.4% HVO), Long Point (67µg/m³- deemed minimal due to wind direction) and Warkworth(62µg/m³ -deemed minimal due to wind direction).</p> <p>19/2/19 – Five HVAS units exceeded 24hr averages - Glider Club (58.0</p>

Cond	06_0261 Condition	Status	Evidence
			<p>µg/m³-1.8% HVO), Kilburnie South (64.0 µg/m³ - deemed minimal due to wind direction) , Knodlers Lane (113.0 µg/m³ -50.4%), Long Point (56 µg/m³ - deemed minimal due to wind direction) and Maison Dieu (73 µg/m³ -23.3% HVO)</p> <p>25/2/19 One HVAS unit exceeded – Kilburnie South (79 µg/m³ - deemed minimal due to wind direction)</p> <p>8/4/19 – One HVAS unit exceeded – Knodlers Lane (76µg/m³- 70.4% HVO).</p> <p>26/4/19 - One HVAS unit exceeded – Knodlers Lane (54µg/m³- 40.7% HVO).</p> <p>26/5/19 Two HVAS units exceeded - Knodlers Lane (61µg/m³- 57% HVO) and Glider Club (56 µg/m³ – 74% HVO).</p> <p>1/6/19 One HVAS unit exceeded – Glider Club (72 µg/m³ – 63% HVO).</p> <p>Viewed Todoroski Air Sciences investigation report over PM10 exceedances to criteria dated 26/9/19. The following was concluded:</p> <p>6/8/19 – Two HVAS units exceeded – Knodlers Lane (59 µg/m³ – 71% HVO) and Maison Dieu (56 µg/m³ – 69% HVO).</p> <p>24/8/19 – Four HVAS unit exceeded – Maison Dieu (109 µg/m³ – <42% HVO), Cheshunt East (71 µg/m³ – 42% HVO), Gliding Club (59 µg/m³ – 31% HVO), Long Point (54 µg/m³ – 53% HVO). Viewed TEOM exceedances within Table 2 of the Monthly Environmental Monitoring Report from January to September. There were exceedances to all TEOM compliance monitors:</p> <ul style="list-style-type: none"> • Jerrys Plains (4 exceedances); • Warkworth (10 exceedances); • Mason Dieu (14 exceedances); and • Knoodlers Lane (17 exceedances); <p>Viewed Table 2 in the relative Monthly Environmental All exceedances were investigated and deemed to be compliant due to HVO contributing to <75%. However, as PM10 levels have exceeded the criteria listed in Table 8 of this condition is deemed non-compliant. Appendix B</p>

Cond	06_0261 Condition	Status	Evidence
			<p>Section 6.2 of the approved 2014 AQMP, HVO is only considered to be an exceedance if HVO contribute to > 75% of the measurement and therefore not required to report to DPIE as an exceedance.</p> <p>2018</p> <p>Section 6.4.2.4 of the Annual Review (2018) has been reviewed with regard to measured dust deposition at nine locations. With regard to dust deposition rates, the annual average dust deposition rates (as g/m²/month) exceeded the criterion of 4 g/m²/month at two locations (DL30 and Warkworth). An external consultant was commissioned to determine the contribution of those total deposition rates associated with HVO activities. That assessment concluded that the HVO contribution was 2.3 g/m²/month and 1.8 g/m²/month respectively. Both contributions were less than 75% of the total, and therefore HVO was determined to be compliant as per Appendix B Section 6.2 of the approved 2014 AQMP.</p> <p>Section 6.4.2.5 of the Annual Review (2018) was reviewed with regard to the measurements of TSP. Three HVAS monitoring location exceeded the annual average TSP concentration of 90 µg/m³ at Kilburnie South, Knodlers Lane and Long Point. An investigation by an external consultant determined the potential contribution of HVO to the exceedances were below the threshold of 75% and therefore HVO was determined to be compliant as per Appendix B Section 6.2 of the approved 2014 AQMP.</p> <p>Section 6.4.2.6 to 6.4.2.8 of the Annual Review was reviewed with regard to PM₁₀ measurements at six locations. 42 in total 24-hour PM₁₀ measurements exceeded the criterion of 50 µg/m³ and each was investigated to determine the level of contribution from HVO activities to the elevated result. Table 26 in the Annual Review (2018) lists exceedances and summary of investigation findings. All of the measured non-compliances were determined to be contributed by HVO activities at less than the 75% threshold, and all were therefore considered to be compliant as per Appendix B Section 6.2 of the approved 2014 AQMP.</p>

Cond	06_0261 Condition	Status	Evidence
			<p>Three exceedances of PM₁₀ Annual Average over the criteria of 30 µg/m³. Knoodlers Lane (36.9 µg/m³), Long Point (33.3 µg/m³) and HVGC (31.1 µg/m³). All were investigated and found HVO's contribution were below the criteria due to prevailing winds and upwind monitoring results and therefore considered to be compliant as per Appendix B Section 6.2 of the approved 2014 AQMP.</p> <p>2017</p> <p>Section 6.4.2.3 of the Annual Review (2017) has been reviewed. Table 18 of the Annual Review provides the reported compliance with the relevant criteria.</p> <p>With regard to dust deposition rates, the annual average dust deposition rates (as g/m²/month) exceeded the criterion of 4 g/m²/month at two locations (DL30 and Warkworth). An external consultant was commissioned to determine the contribution of those total deposition rates associated with HVO activities. That assessment concluded that the HVO contribution was 2.4 g/m²/month and 1.05 g/m²/month respectively. Both contributions were less than 75% of the total, and therefore HVO was determined to be compliant as per Appendix B Section 6.2 of the approved 2014 AQMP.</p> <p>Section 6.4.2.5 of the Annual Review (2017) was reviewed with regard to the measurements of TSP. One HVAS monitoring location exceeded the annual average TSP concentration of 90 µg/m³ at Long Point (95.3 µg/m³). An investigation by an external consultant determined the potential contribution of HVO to the exceedance was below the criterion of 90 µg/m³ and therefore HVO was determined to be compliant as per Appendix B Section 6.2 of the approved 2014 AQMP.</p> <p>Section 6.4.2.6 to 6.4.2.8 of the Annual Review was reviewed with regard to PM₁₀ measurements. 58 in total 24-hour PM₁₀ measurements exceeded the criterion of 50 µg/m³ and each was investigated to determine the level of contribution from HVO activities to the elevated result. Table 21 in the Annual Review (2017) lists exceedances and</p>

Cond	06_0261 Condition	Status	Evidence
			<p>summary of investigation findings.</p> <ul style="list-style-type: none"> - The measurement on 29/07/17 was determined to be non-compliant at 58 µg/m³ (with HVO contribution being 85%) and reported to the HVGC and DPIE. - The measurement on 30/09/17 at Knodlers Lane was estimated to be 76% of the total measurement of 60 µg/m³ although it is reported in Table 21 of the Annual Review (2017). TEOMs are not a compliance monitor for South HVO under the 2014 AQMP. <p>Two measurements of PM10 annual average were measured in exceedance of the annual average criterion of 30 µg/m³ at HVGC HVAS (32.3 µg/m³), Long Point (33.3 µg/m³). Both exceedances were investigated: the HVGC location concluded due to prevailing winds and upwind monitoring results that HVO's contribution were below the criteria; and Long Point investigation determined that the result (excluding the extraneous livestock dust impacted days from livestock immediately adjacent to the monitor was below the criteria and as per the approved AQMP deemed compliant as per Appendix B Section 6.2 of the approved 2014 AQMP.</p> <p>2016</p> <p>Section 6.4.2.4 of the Annual Review (2016) has been reviewed with regard to dust deposition rates as measured at nine locations. The annual average dust deposition rates (as g/m²/month) were within the criteria of 2 g/m²/month (increment) and 4 g/m²/month (total) at all locations.</p> <p>Section 6.4.2.5 of the Annual Review (2017) was reviewed with regard to the measurements of TSP (at 5 locations). All TSP measurements were compliant with the annual average TSP criterion of 90 µg/m³.</p> <p>Section 6.4.2.6 to 6.4.2.8 of the Annual Review was reviewed with regard to PM₁₀ measurements at six locations. A total of 17 x 24-hour PM₁₀ measurements exceeded the criterion of 50 µg/m³ and each was investigated to determine the level of contribution from HVO activities to the elevated result. Table 22 in the Annual Review (2016) lists</p>

Cond	06_0261 Condition	Status	Evidence
			<p>exceedances and summary of investigation findings, concluding none of the measured exceedances were contributed to from HVO activities exceeding 75% of the total and as per the approved AQMP deemed compliant as per Appendix B Section 6.2 of the approved 2014 AQMP. No measurements of PM₁₀ were measured in exceedance of the (then current) annual average criterion of 30 µg/m³.</p> <p>Recommend that dust deposition gauges at DL30 and Warkworth; and PM10 monitors at Knodlers Lane and Long Point be reconsidered as to their appropriateness as representative of private receivers (occur outside EA predictions of exceedance of criteria) as they are exceeding annual average results during the IEA period (however stated not due to HVO activities and not reported consistent with approved AQMP).</p> <p>As Knodlers Lane and Long Point monitoring sites occur within exceedance predictions for PM10 in the MOD5 assessment, it is likely that they will exceed on a continuous basis. HVO advises that DG will remain as internal management sites, not compliance as per Table 5 of the updated AQMP.</p> <p>Internal procedures and relevant training be updated for change to AQMP which changes reportable circumstances for PM10 24 hr consistent with the updated AQMP Section 9. HVO advises this is proposed.</p>
Land Acquisition Criteria			
3.20	<i>Deleted</i>	N/A	N/A
Additional Air Quality Impact Mitigation Measures			
3.21	Upon receiving a written request from:	Compliant	All residences listed in Table 1 are now mine owned.

<ul style="list-style-type: none"> • an owner of land listed in Table 1 (unless the landowner has requested acquisition); or • an owner of land listed in Table 14 <p>the Proponent must implement reasonable and feasible air quality impact mitigation measures (such as air conditioning, first flush drinking water collection systems etc.) at any residence on the land, in consultation with the landowner. These measures must be consistent with the measures outlined in the Voluntary Land Acquisition and Mitigation Policy for State Significant Mining, Petroleum and Extractive Industry Development (NSW Government, 2014), as amended, and proportionate to the level of predicted impact.</p> <p>However, if the Proponent has an air quality agreement with the owner of any land listed in Table 1 or Table 14 and a copy of this agreement has been forwarded to the Department and EPA, then the Proponent does not have to implement such measures.</p> <p>If within 3 months of receiving this request from the landowner, the Proponent and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Secretary for resolution.</p> <p>Within 3 months of the date of this approval, the Proponent must notify all applicable landowners that they are entitled to receive air quality impact mitigation measures, to the satisfaction of the Secretary.</p> <p><i>Table 14: Land subject to additional air quality impact mitigation upon request</i></p> <table border="1"> <tr> <td>7 – Stapleton (Cheshunt East)</td> <td>34 – Ernst</td> </tr> <tr> <td>24 – Clifton and Edwards and residences located within 250 metres of this residence.</td> <td>50 – Nelson</td> </tr> <tr> <td>471* – Bowman</td> <td>56 – Edwards</td> </tr> </table> <p>Notes:</p> <ul style="list-style-type: none"> • <i>The land numbers are as described in the EA, except the one with an asterisk which is as described in EA (Mod 5),</i> 	7 – Stapleton (Cheshunt East)	34 – Ernst	24 – Clifton and Edwards and residences located within 250 metres of this residence.	50 – Nelson	471* – Bowman	56 – Edwards	<p>No mitigation requests were made during the audit period (per comms AS). However, noise mitigation was offered to four properties in Maison Dieu in February 2017 anticipating HVO MOD5 approval.</p> <p>Recommend on next Modification Table 14 is updated for property ownership changes.</p>
7 – Stapleton (Cheshunt East)	34 – Ernst						
24 – Clifton and Edwards and residences located within 250 metres of this residence.	50 – Nelson						
471* – Bowman	56 – Edwards						

Cond	06_0261 Condition	Status	Evidence
	<p>and as shown in Appendix 4.</p> <ul style="list-style-type: none"> Land number 7 is now mine-owned. 		
Mine-owned Land			
21a	<p>Particulate matter emissions generated by the project must not exceed the criteria listed in Table 8 at any occupied residence on mine-owned land (including land owned by another mining company) unless:</p> <p>(a) the tenant and landowner (if the residence is owned by another mining company) have been notified of any health risks associated with such exceedances in accordance with the notification requirements under Schedule 4 of this approval;</p> <p>(b) the tenant of any land owned by the Proponent can terminate their tenancy agreement without penalty at any time, subject to giving reasonable notice;</p> <p>(c) air quality monitoring is regularly undertaken to inform the tenant and landowner (if the residence is owned by another mining company) of the likely particulate emissions at the residence; and</p> <p>(d) data from this monitoring is presented to the tenant and landowner in an appropriate format for a medical practitioner to assist the tenant and landowner in making informed decisions on the health risks associated with occupying the property.</p>	Compliant	<p>Refer to exceedances in Sch 3 Cond 19.</p> <p>Viewed tenancy agreement providing information on associated health risks.</p> <p>Section 4 of Appendix B of the 2014 AQMP state residents in mine own land will be presented with monitoring data upon request in required format. No requests were made through the audit period (per comms AS).</p>
Operating Conditions			
3.22	<p>The Proponent must:</p> <p>(a) take all reasonable steps to minimise odour, fume, spontaneous combustion, greenhouse gas and dust (including PM10 and PM2.5) emissions of the project;</p> <p>(b) minimise any visible off-site air pollution generated by the project;</p>	Compliant	<p>Northstar Air Quality reviewed the following:</p> <p>a) A Pollution Reduction Program (PRP) was implemented through EPL 640 in 2013. The objective of the PRP was to identify and implement best management practice for dust control at the site. PRP evidence reviewed from the EPA website. There is no requirement for PM_{2.5} monitoring in EPL 640.</p>

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	<p>(c) minimise to the greatest extent practicable, the extent of potential dust generating surfaces exposed on the site at any given point in time;</p> <p>(d) operate a comprehensive air quality management system that uses a combination of predictive meteorological forecasting and real-time air quality monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this approval;</p> <p>(e) carry out regular air quality monitoring to determine whether the project is complying with the relevant conditions of this approval;</p> <p>(f) regularly assess the air quality monitoring data, and modify or stop operations on the site to ensure compliance with the relevant conditions of this approval;</p> <p>(g) minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see Note c to Table 8 above); and</p> <p>(h) use all reasonable efforts to co-ordinate air quality management on the site with the air quality management at nearby mines to minimise cumulative air quality impacts,</p> <p>to the satisfaction of the Secretary.</p>		<p>Spontaneous Combustion Principal Hazard Management Plan dated August 2019 reviewed, which details the preventative and mitigating management measures to manage spontaneous combustion.</p> <p>b) A PRP was implemented through EPL 640 in 2013. The objective of the PRP was to identify and implement best management practice for dust control at the site at source. AQGHGMP (2014) Appendix C addresses visible dust control within a TARP. See Plate 4 & 5 demonstrating dust control practices of using water sprays. Plate 6 shows active mining in the Cheshunt Pit with minimal dust in consideration of the high wind conditions.</p> <p>c) HVO Annual Review 2016, 2017 and 2018 outline programs for land rehabilitation to minimise the area of disturbed land.</p> <p>d) AQGHGMP (2019) Section 6 presents a comprehensive management system, including daily predictive modelling</p> <p>e) and f) AQGHGMP (2014) presents a comprehensive monitoring system</p> <p>g) AQGHGMP (2014) Section 6 and AQGHGMP (2019) Section 6 present procedure for proactive management of operations during adverse conditions. AQGHGMP (2014) Appendix C also addresses this issue.</p> <p>h) AQGHGMP (2014) Section 3.2 describes co-operation with nearby mines. Refer to Sch 3 Cond 6(f) regarding evidence.</p> <p>Viewed Table 6 in the 2014 AQGHGMP describing the real time air quality alarm system (Table 4 of the 2019 AQMP). HVO has real time air quality alarms at the following locations:</p> <ul style="list-style-type: none"> • Mason Dieu (PM10); • Knodlers Lane (PM10); • Warkworth (PM10); • Wandewoi (PM10); • HVO Corporate Met Station (Wind Speed); and • HVO Cheshunt Met Station (Wind Speed). <p>These monitors have trigger levels that have been set as per Table 4 of AQMP (2019). Response to alarm is as per Figure 3 flowchart of AQMP</p>

Cond	06_0261 Condition	Status	Evidence
			<p>(2019). Meteorological forecasting is received once daily and included within production meetings to ensure any blasting or daily activities remain compliant with requirements at both day and night shifts as required. Viewed example of pit services pre-start presentation dated 5/12/19 detailing dust hazards and controls as part of site tour on 3/12/19. Viewed SMS messages sent to key staff relating to meteorological and trigger level breaches at the real time noise monitor. As part of site visit, Auditors spoke with John Cass (JC) who explained step by step the protocol when a monitor alarm is received. Dispatcher on duty at time of inspection was also questioned and provided consistent response. Logs alerts via an online system (NAG) Dispatchers first point of call for any dust/air alarm. Dispatcher who receives the alarm puts in a note that they have received it and reviews the available data (e.g. wind roses) before speaking to the supervisor who then if need be would do a site inspection. Viewed example air quality alarm that has been lodged in the Alert online system relating to air quality lodged at 8.20am this morning which was acknowledged at 8.20am and lists the changes that were made to equipment locations any time stoppage. JC explained responses to alarms or complaints included moving equipment in the pit away from complainant if able to and shutdown if needed. Approximately 670hrs of shutdown of equipment week prior to the audit alone due to dust (per comms JC).</p>
Air Quality Management Plan			
3.23	<p>The Proponent must prepare an Air Quality Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(a) be submitted to the Secretary for approval within 3 months of the determination of Modification 5, unless otherwise agreed by the Secretary;</p> <p>(b) be prepared in consultation with the EPA by a suitably</p>	Compliant	<p>North Star reviewed the following: Viewed the current Air Quality and Greenhouse Gas Management Plan (AQGHGMP) approved by the Secretary 6 September 2019. The majority of the audit period was completed under the previously approved management plan dated 11 February 2014 (DPIE approved in correspondence dated 12/2/14 as per 2016 IEA). The 2016 IEA completed</p>

Cond	06_0261 Condition	Status	Evidence
	<p>qualified and experienced person/s;</p> <p>(c) describe the measures to be implemented to ensure:</p> <ul style="list-style-type: none"> compliance with the air quality criteria and operating conditions in this approval; best practice management is being employed; and the air quality impacts of the project are minimised during adverse meteorological conditions and extraordinary events; <p>(d) describe the air quality management system in detail;</p> <p>and</p> <p>(e) include an air quality monitoring program that:</p> <ul style="list-style-type: none"> uses monitors to evaluate the performance of the project against the air quality criteria in this approval and to guide day to day planning of operations; adequately supports the air quality management system; and a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents; <p>(f) include a protocol that has been prepared in consultation with the owners of nearby mines to minimise cumulative air quality impacts.</p> <p>The Proponent must implement the Air Quality Management Plan as approved by the Secretary.</p>		<p>a review of the AQGHGMP (2014) and deemed it compliant with this condition.</p> <p>The current AQGHGMP (2019) is reviewed below:</p> <p>a) MOD 5 was approved 28/2/18 with the AQGHGMP (2019) revised following this approval 25/5/18 with a number of revisions following DPIE feedback following final approval 6/9/19.</p> <p>b) AQGHGMP (2019) Section 3.1, Appendix A confirms consultation with EPA.</p> <p>c) AQGHGMP (2019) Section 5 describes the management and mitigation to ensure compliance and best practice.</p> <p>d) AQGHGMP (2019) Section 6 describes the management controls for HVO.</p> <p>e) AQGHGMP (2019) Section 8 provides information on the air quality monitoring system.</p> <p>f) AQGHGMP (2019) Section 3.2 provides the consultation that has taken place to minimise cumulative air quality impacts. A copy of the Inter-mine Environment & Community Interaction Meeting minutes (29th May 2019) was provided, documenting the meeting between Bloomfield, Yancoal, Peabody and Glencore (HVO and MTW noted as offering apologies for that meeting). The minutes document discussion on management of cumulative impacts of blasting, noise and air quality.</p>
METEOROLOGICAL MONITORING			
3.24	During the life of the project, the Proponent must ensure that there is a suitable meteorological station in the vicinity of the site that complies with the requirements in the <i>Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales</i>	Compliant	AQGHGMP (2014) Appendix B and Table 5 of the 2019 AQMP presents the details of meteorological monitoring at the HVO Weather Station. The following figure in Appendix B shows two met stations "Corporate Met Station" and "Cheshunt Met Station".

Cond	06_0261 Condition	Status	Evidence
	guideline.		<p>Additional information has been provided with regard to instrument calibration at HVO South during the audit period including:</p> <p>Cheshunt AWS</p> <ul style="list-style-type: none"> - Wind sensor (WS/WD) - Relative humidity - Rain gauge - Temperature <p>As per email dated 5/2/20 DB confirms the EPA method described in this condition gives guidance to using Approved methods AM1, AM2 and AM4. AM4 is the closest to providing advice on measurement of standard parameters however is intended for use in collection of data for modelling applications. Therefore, monitoring for 2 and 10m temperature differences is not a requirement of the consent condition for the south and that the method of determining inversion strength is done by the sigma theta calculation method.</p>
SURFACE AND GROUNDWATER			
Discharge Limits			
3.25	The Proponent must only discharge mine water from the site in accordance with the provisions of an EPL, section 120 of the <i>Protection of the Environment Operations Act 1997</i> or the <i>Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002</i> .	Compliant	<p>Viewed the 2018 AR, 2017 AR and 2016 AR and EPL monitoring reports for Jan to Oct 2019</p> <p>Viewed incident spreadsheets (2018 Environmental Incidents.xlsx and 2019 Environmental Incidents YTD.xlsx) which indicate that additional discharges and hydrocarbon spillages have occurred during 2019 however reportable incidents are for the North site (per comms AS).</p>

Cond	06_0261 Condition	Status	Evidence
Protection of Watercourses			
3.26	<p>The Proponent must:</p> <p>(a) ensure mining operations do not interfere with the stability of the Hunter River, Wollombi Brook and creek lines located outside the area of mining operations; and</p> <p>(b) to the south of the Hunter River, retain a buffer zone of 150 metres, or less if agreed by the Secretary following consultation with CLWD, from the edge of open cut pits and the high bank of the Hunter River and its connected alluvium, excepting the area of the site adjacent to the Hobden Gully levee.</p>	Compliant	<p>Viewed Table 1.2 of the WMP which confirms that the approved open cut pits are located at least 150 m from the Hunter River and the associated alluvium.</p> <p>Viewed the 2018 AR, 2017 AR and 2016 AR which indicate that there is no evidence of mining impacts on creek stability.</p> <p>a) Viewed PowerPoint presentation title 191220_Cheshunt Northern Endwall Inspections.ppt which provide details of inspections from 2019 and related notes and related photos from each inspection. Notes confirm water levels appear consistent throughout the year.</p> <p>b) Viewed letter from DPIE confirming approval to mine within 150m dated 15/1/14 (Appendix B of the July 2015 WMP). Viewed AGE report Barry's Pit Mod Groundwater Assessment dated September 2013. DPIE has confirmed consultation with NOW.</p>
Water Supply			
3.26A	<p>The Proponent must ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of the project to match its available water supply.</p> <p>The Proponent must report on water extracted from the site each year (direct and indirect) in the Annual Review, including water taken under each water licence.</p> <p><i>Note: Under the Water Act 1912 and/or the Water Management Act 2000, the Proponent is required to obtain all necessary water licences for the project. The Proponent must surrender sufficient water entitlements upon cessation of rehabilitation activities to ensure that post closure water take impacts are sufficiently accounted for.</i></p>	Compliant	<p>Viewed Section 6.2 of the WMP which confirms that the mine typically operates with a net water surplus. Under average climate conditions, train load points are supplied from the Glencore Liddell Mine (due to its proximity) under an existing agreement.</p> <p>During extended dry periods the mine may operate a water deficit. The WMP explains that the site water inventory will preferentially be used to supply any water deficit. Additional contingency supplies include the current water share allocation from the Hunter River and water transfers from neighbouring mines.</p> <p>Section 7.1.2 of the 2016 AR which indicates that HVO operated with a net water deficit of 350 ML (due to drier than average conditions). The water deficit was supplied by the existing stored water inventory.</p>

Cond	06_0261 Condition	Status	Evidence
			<p>Section 7.1.2 of the 2017 AR which indicates that HVO operated with a net water deficit of 1,446 ML (due to drier than average conditions). The water deficit was supplied by water from the Hunter River and other mines.</p> <p>Section 7.1.2 of the 2018 AR which indicates that HVO operated with a net water surplus of 2,770 ML. The water surplus was mainly due to rainfall runoff and Hunter River abstractions.</p> <p>Viewed Section 6.1 of the 2018 AR and 2.3 of the 2017 AR (2017 Predicted Groundwater Take Report) which confirm that groundwater take is within the licensed entitlement volumes shown in the WMP.</p> <p>Viewed Table 33 of the 2018 AR which indicates that surface water take from the Hunter River is within the licensed entitlement volumes shown in the WMP.</p>
Compensatory Water Supply			
3.26B	<p>The Proponent must provide compensatory water supply to any landowner of privately-owned land whose rightful water supply is adversely and directly impacted (other than an impact that is negligible) as a result of the project, in consultation with CLWD, and to the satisfaction of the Secretary.</p> <p>The compensatory water supply measures must provide an alternative long term supply of water that is equivalent, in quality and volume, to the loss attributable to the project. Equivalent water supply should be provided (at least on an interim basis) as soon as practicable after the loss is identified, unless otherwise agreed with the landowner.</p> <p>If the Proponent and the landowner cannot agree on whether the loss of water is/ is not attributable to the project or 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 Secretary for resolution.</p>	Not Triggered	<p>Viewed the 2018 AR, 2017 AR and 2016 AR which do not indicate that any landholder water supplies were impacted as a result of the mining operations.</p> <p>AS confirmed this has not been requested in the audit period.</p>

Cond	06_0261 Condition	Status	Evidence
	<p>If the Proponent is unable to provide an alternative long term supply of water, then the Proponent must provide compensation, to the satisfaction of the Secretary.</p> <p>Notes:</p> <p><i>The Water Management Plan (see condition 27 below) is required to include trigger levels for investigating potentially adverse impacts on water supplies.</i></p> <p><i>The burden of proof that any loss of surface water or groundwater access is not due to the project rests with the Proponent.</i></p>		
Water Transfers			
3.26C	The Proponent may receive water from, and transfer water to, neighbouring mines including HVO North, Warkworth/ Mt Thorley and Wambo mines.	Compliant	<p>Noted.</p> <p>Viewed Section 6.3 of the WMP which confirms that, under average climate conditions, train load points are supplied from the Glencore Liddell Mine (due to its proximity) under an existing agreement.</p> <p>During extended dry periods the mine may operate a water deficit. The WMP explains that the site water inventory (within the HVO North and South storages) will preferentially be used to supply any water deficit.</p> <p>Additional contingency supplies include the current water share allocation from the Hunter River and water transfers from neighbouring mines including Wambo, Mt Thorley Warkworth and Ravensworth mines.</p>
WATER MANAGEMENT PLAN			
3.27	<p>The Proponent must prepare a Water Management Plan to the satisfaction of the Secretary. This Plan must:</p> <p>(a) be prepared in consultation with CLWD by a suitably qualified expert whose appointment has been approved by the Secretary;</p> <p>(b) be submitted to the Secretary for approval within 6 months of this approval or otherwise agreed by the Secretary; and</p>	Compliant	<p>Two approved WMPs were in effect during the audit period. The current WMP was approved on 16 Oct 2018. The previous WMP was approved on 10 July 2015 and was in effect (with revisions) until the current WMP was approved.</p> <p>The current Water Management Plan (Oct 2018). Appendix A provides confirmation from the Secretary of approval of Mr Andrew Hodge as a</p>

Cond	06_0261 Condition	Status	Evidence
	<p>(c) include:</p> <ul style="list-style-type: none"> • a site water balance, which includes details of sources and security of water supply, on site water use and management and off site water transfers and investigates and describes measures to minimise water use by the project; • an erosion and sediment control plan for surface works on the site that is consistent with the requirements of the <i>Managing Urban Stormwater: Soils and Construction Manual</i> (Landcom 2004, or its latest version); • a program for review of groundwater modelling that includes assessment of the effect of short and long-term changes to groundwater quality and mobilisation of salts; • a surface water monitoring program that includes: <ul style="list-style-type: none"> - detailed baseline data of surface water flows and quality in the watercourses that could be affected by the project, including the Hunter River and Wollombi Brook; - a detailed description of the surface water management system; - details of water licensing requirements for all water storages; - details of licensed discharge points and limits; - detailed design objectives and performance measures for erosion and sediment control works, water storages, water diversions, sediment dams, emplacement areas, backfilled voids and the final void; 		<p>suitably qualified person to prepare this document dated 28/11/2017. Viewed approval from the Secretary dated 16/10/18.</p> <p>a) Viewed letters (Appendix B of the current WMP) dated 6 Dec 2017 and 18 June 2018 which show that HVO consulted with the CL&W and the EPA on the current WMP. The EPA advised that it does not require HVO to consult with it on the WMP. The CL&W provided comments on the draft WMP. Section 3.1 of the current WMP confirms that current WMP was updated to address the CL&W comments.</p> <p>b) Completed. Verified within 2010 IEA.</p> <p>c) The current WMP contains a site water balance (Section 6), an erosion and sediment control plan (Section 7.3.2), a program for review of the groundwater modelling (Section 8.6), a surface water monitoring program (Appendix C) and a groundwater monitoring program (Appendix D) and a program of review and update for the site water balance (Section 6.1) and groundwater model (Section 8.6).</p> <p><u>Previous WMP</u></p> <p>Viewed a letter (Appendix A of the previous WMP) dated 11 July 2013 that confirms the author of the previous WMP is a suitably qualified and experienced person in relation to this condition.</p> <p>Viewed a letter (Appendix B of the previous WMP) dated 30 Apr 2014 which explains that HVO requested an extension to the Sept 2013 deadline for submission of the WMP. The DPI granted an extension to 31 December 2013. HVO submitted the WMP on 20 Dec 2013.</p> <p>a) The letter presented in Appendix B of the previous WMP also confirms that HVO consulted with the NOW and the EPA between 20 Dec 2013 and 30 Apr 2014. The EPA advised HVO that the EPA does not review WMPs. The NOW provided comments on the draft WMP on 4 Feb 2014.</p> <p>b) Viewed letter (Appendix E of the previous WMP) dated 19 April 2014 stating the Secretary's approval of the previous WMP. Note that Section 1</p>

Cond	06_0261 Condition	Status	Evidence
	<ul style="list-style-type: none"> - surface water impact assessment criteria, including trigger levels for investigating potentially adverse surface water impacts of the project; - a program to monitor potentially adverse impacts of the project on surface water flows and quality, flooding, stream and riparian vegetation health, including monitoring controlled and uncontrolled discharges and seepage/leachate from the site; and - a plan to respond to any exceedances of the performance criteria or surface water impact assessment criteria, and repair, mitigate and/or offset any adverse surface water impacts of the project; • a groundwater monitoring program that includes: <ul style="list-style-type: none"> - additional baseline data of groundwater levels, yield and quality in the region, and privately-owned groundwater bores, which could be affected by the project; - groundwater impact assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts of the project; - a program to monitor: <ul style="list-style-type: none"> ○ groundwater inflows to the open cut mining operations; ○ impacts of the project on the region's aquifers, any groundwater bores, and surrounding watercourses, and in 		<p>of the previous WMP indicates that the approval letter date was actually 19 May 2014.</p> <p>c) The previous WMP contains a site water balance (Section 6), an erosion and sediment control plan (Section 7.3.2), a program for review of the groundwater modelling (Section 8.4), a surface water monitoring program (Appendix D) and a groundwater monitoring program (Appendix E) and a program of review and update for the site water balance (Section 6.2) and groundwater model (Section 8.4).</p> <p>Viewed the 2016 IEA which confirmed that the previous WMP adequately addressed all of the requirements of this condition. The 2016 IEA recommended corrections to the WMP cross references. The current WMP includes the necessary corrections.</p>

Cond	06_0261 Condition	Status	Evidence
	<p>particular, the Hunter River and Wollombi Brook and adjacent alluvium; and</p> <ul style="list-style-type: none"> o impacts of the project on groundwater dependent ecosystems, riparian vegetation and River Red Gum populations; and - a plan to respond to any exceedances of the groundwater impact assessment criteria, and repair, mitigate and/or offset any adverse groundwater impacts of the project; and • a program to periodically update and validate the water balance and groundwater model for the project and compare monitoring results with modelled predictions, unless otherwise agreed by the Secretary. <p>The Proponent must implement the Water Management Plan as approved by the Secretary.</p>		
Groundwater Impacts Report			
3.28	<p>The Proponent must provide an annual report of alluvial and hard rock buffer groundwater levels. This report must:</p> <ul style="list-style-type: none"> (a) be provided to CLWD and the Department in the Annual Review each year following the reporting period; (b) include interpreted drawdown levels resulting from existing and/or ongoing mining operations of the project; and (c) account for any drawdown loss of alluvial groundwater or river flows to the satisfaction of the Secretary. 	Not Compliant	<p>Viewed the 2016 AR, 2017 AR and 2018 AR See Appendix 1. which each include a formal review of groundwater levels, model predictions and an interpretive assessment of mining induced drawdown and its effects on alluvial groundwater and river flows.</p> <p>Viewed email dated 2 April 2019 from NRAR confirming they have received a copy of the 2018 Annual Review containing the annual groundwater report as an appendix. No confirmation for the 2017 AR was received.</p>
3.28A	<p>The Proponent must design and construct Lake James (as described in the documents listed in condition 2(c) of schedule 2) to the satisfaction of the DSC. The final dam design, as submitted</p>	Not Triggered	<p>Viewed Table B1 of the 2016 IEA which states that the 2014 IEA confirmed that as constructed plans were sighted.</p>

Cond	06_0261 Condition	Status	Evidence						
	to DSC, must be accompanied by a detailed assessment of the potential operational and environmental risks associated with the dam.		Viewed the current WMP which confirms that the redesigned Lake James is currently in operation.						
REHABILITATION AND LANDSCAPE									
Biodiversity Offset Strategy									
3.29	<p>The Proponent must implement the biodiversity offset strategy as described in the Warkworth Mine EIS, summarised in Table 15 below and shown conceptually in Appendix 5, to the satisfaction of the Secretary.</p> <table border="1"> <caption>Table 15: Summary of the Biodiversity Offset Strategy</caption> <thead> <tr> <th>Area</th> <th>Offset Type</th> <th>Minimum Size (hectares)</th> </tr> </thead> <tbody> <tr> <td>Goulburn River Biodiversity Area</td> <td>Existing vegetation to be enhanced (Narrow leaved ironbark woodland)</td> <td>140</td> </tr> </tbody> </table> <p>Note: This 140 ha of vegetation in the Goulburn River Biodiversity Area is additional to the 1,063 ha of vegetation to be offset on this property for Warkworth Mine. The biodiversity offset strategy may be integrated with the similar strategy for Warkworth Mine.</p>	Area	Offset Type	Minimum Size (hectares)	Goulburn River Biodiversity Area	Existing vegetation to be enhanced (Narrow leaved ironbark woodland)	140	Compliant	<p>The Goulburn River Biodiversity Area - Management Plan (2017). Has superseded the previous Regional Offset Management Plan (2014). The 140ha has been included in this strategy. Implementation of this plan has ongoing since approval (Environmental Officer Interview). Viewed Goulburn River Management Plan (2017) which states in Section 1.2.2 that it complies with condition of 36 of this approval. Yancoal looks after the day to day management of this offset (pers comms ML). Viewed Regional Biodiversity Annual Report 2018 dated 3/5/19 which includes this area. It shows summary of monitoring and actions for the offset areas including the Goulburn River BA (which includes the 140ha of HVO's offset). Viewed 2017 and 2018 Regional Biodiversity Areas Annual Report which includes the Goulburn River BA. 2018 Annual Review Section 8.15.3 and 2017 Annual Review section 8.15.2.1 states weed control was conducted at Goulburn River BA in autumn and summer and included targeted species listed in Table 14 2018 Annual Review Section 8.15.3.3 and 2017 Annual Review Section 8.15.2.4 stating no grazing activities took place within the Goulburn BA during the audit period. Section 8.15.3.2 of the 2018 Annual Review states consultants LRM reviewed the Goulburn River BA Bushfire Management Plan and will update in 2019. 2017 Annual Section 8.15.2.1 states a fence audit was undertaken within HVO Biodiversity Areas 2018 Annual Review Section 8.15.3.4 states 1080 ground baiting program</p>
Area	Offset Type	Minimum Size (hectares)							
Goulburn River Biodiversity Area	Existing vegetation to be enhanced (Narrow leaved ironbark woodland)	140							

Cond	06_0261 Condition	Status	Evidence
			<p>were undertaken in autumn and spring at the Goulburn River BA targeting wild dogs and foxes. Viewed HVO Regional Offsets Spring Vertebrate Pest Management Report for works completed between 30/9/19 to 19/10/19 completed by Rural & Environmental Management Pty Ltd. Figure 9 confirms this occurred within HVO offset area.</p> <p>Recommend the Regional Biodiversity Annual Review template be updated to allow quantification of monitoring data for HVO and stipulate HVO's requirements and criteria are being met.</p>
Long Term Security of Offset			
3.29A	<p>By the end of June 2018, unless the Secretary agrees otherwise, the Proponent must secure the offset area identified in condition 29 under an in perpetuity conservation mechanism to the satisfaction of the Secretary, such as a Conservation Agreement under the <i>National Parks and Wildlife Act 1974</i>, BioBanking Agreement under the <i>Threatened Species Conservation Act 1995</i>, Biobanking Stewardship Agreement or Conservation Agreement under the <i>Biodiversity Conservation Act 2016</i> or by incorporating the land into the Goulburn River National Park (if agreed by NPWS). This conservation mechanism may be combined with any similar mechanism required for Warkworth Mine.</p>	Compliant	<p>Viewed letter from DPIE dated 4 July 2019 confirming previous approved extension from June 2018 until the end of June 2019 to allow for the necessary surveys and studies to be developed with OEH to include the Goulburn River Offset into the Biodiversity Stewardship Agreement with Yancoal.</p> <p>Viewed email dated 26 June 2019 from HVO to DPIE requesting another extension to allow the area to be protected under the same conservation covenant for the Warkworth Offsets.</p> <p>Viewed letter from Howard Reed (DPIE) dated 4 July 2019 which confirm DPIE accept the request for an extension until 30 June 2020 to meet the requirements under this condition.</p> <p>No evidence provided of progression in establishing the long term mechanism from 4 July 2019 to 5 December 2019.</p>
Offsets for Warkworth Mine			
3.29B	<p>The Proponent must not undertake any mining operations or development within the Southern Biodiversity Area or Northern Biodiversity Area as indicated on the plan in Appendix 10, other than any conservation-related activity under an approved Biodiversity Management Plan under either this approval or similar plan required for Warkworth Mine.</p> <p><i>Note: The Southern Biodiversity Area and Northern</i></p>	Compliant	<p>Viewed current aerial photograph and compared with the biodiversity areas which shows no mining activities or development. Confirmed no mining operations or development occurred within this area (pers comms ML).</p>

Cond	06_0261 Condition	Status	Evidence
	<p><i>Biodiversity Area form part of the biodiversity offset strategy for Warkworth Mine.</i></p>		
River Red Gum Restoration Strategy			
3.30	<p>Within 12 months of the date of this approval, or otherwise agreed by the Secretary, the Proponent must review, revise and provide a timetable for the implementation the HVO River Red Gum Strategy for the Hunter River and Wollombi Brook river red gum populations (as shown in Appendix 8), in consultation with CLWD and OEH, and to the satisfaction of the Secretary. This strategy must be prepared by suitably qualified expert/s, and must include:</p> <p>(a) the conservation and restoration objectives for the river red gum populations;</p> <p>(b) a description of the short, medium and long term measures that would be implemented to conserve and restore the river red gum populations (including measures to address matters which affect the long term health and sustainability of the river red gums such as surface and ground water supply, and controlling weeds, livestock and feral animals); and</p> <p>(c) detailed assessment and completion criteria for the conservation and restoration of the river red gum populations.</p>	Not Compliant	<p>Minesoils completed the following review:</p> <p>The River Red Gum Rehabilitation and Restoration Strategy (EMGA & Umwelt2010):</p> <p>Section 7.1.2 describes baseline and subsequent surveys (2007 and 2008). Section 7.1.3 contains a timetable for future monitoring including year 3 (2010), year 5 (2012) and year 10 (2017) monitoring. Evidence of consultation with CLWD and OEH has previously occurred with NOW and EPA and predates scope of this audit. Recommend any revision to the Strategy include consultation with Dol Water and OEH.</p> <p>As per Table 1.1 of the Biodiversity Management Plan a revised River Red Gum Strategy was to be submitted for approval prior to 28 February 2019. No evidence this was completed.</p> <p>Other timing for actions is stated in Section 5.3, Table 5.1.</p> <p>a) Section 6.1;</p> <p>b) Section 5.0 and Appendix 2; and</p> <p>c) Section 6.2 & 6.3 and Appendix 3.</p> <p>Section 5.2.3 of the strategy lists the activities provided within the remnant zones with main priority weed control and feral animal control. Monitoring has occurred in 2013/14 (refer to 2016 IEA audit findings/explanation).</p> <p>Table 6.1 of the River Red Gum Strategy lists management commitments for the Carrington Billabong. These include:</p> <ul style="list-style-type: none"> • Regeneration – facilitate the opportunity, where practicable, for the encouragement of natural regeneration of river red gums; • Ecological Condition of Remnant – show an overall improvement in condition compared to baseline results;

Cond	06_0261 Condition	Status	Evidence
			<ul style="list-style-type: none"> • Surface Water and sediment and erosion control – currently approved mining activities will not impact on the provision of surface water or detrimentally affect sites through erosion or sediment load; • Fencing and Access control – determine if sites need to be fenced off, or determine if grazing should be removed to facilitate ecological improvement. • Pest and Weed management – pest and weed control inspections will occur on a biannual basis. Weed control will target river red gum sites if pest or weed problems are detected. <p>Viewed HVO River Red Gum Rehabilitation & Restoration Implementation plan by Umwelt dated March 2010 (Appendix 2 of the RRG Strategy) and Appendix 3 Preliminary Completion Criteria and Performance Measures for Carrington Billabong. Section 8.14 of the 2018 Annual Review provided an overview of management activities during the audit period. These included fencing and removal of cattle grazing, planting program and weed management in accordance with the weed management plan. Viewed photos of management and provided an overview from HVO where these were administered in relation to Appendix 8 of this consent.</p> <p>There is no evidence to confirm all River Red Gum sites (as shown in Appendix 8) have addressed management practices listed above. Recommend adding confirmation in the Annual Review over what areas have been addressed.</p> <p>Viewed hunter river red gum protection site showing fencing and signage of the area as a protection zone (Plate 7). Viewed photos of tree planting in autumn 2017 where a total of 1,000 plants were planted.</p> <p>Viewed 10 year monitoring of river red gums at Carrington billabong and HVO draft report (as no final document has occurred) completed by Umwelt dated 11/4/18 with the monitoring event occurring May/June 2017 (Table 4.1). This report concluded the following changes from 2007 baseline monitoring:</p>

Cond	06_0261 Condition	Status	Evidence
			<ul style="list-style-type: none"> • Decline in plant diversity (from 46 to 33 species); • Increase in dominance of weed species (from 46% to 67%); <p>Umwelt attribute a number of factors to these results including widespread vegetation clearing over the past long term, isolation of native vegetation remnants, historic stock grazing leading to modification of vegetation and soils, loss of topsoil due to land management practices and weed invasion.</p> <p>The Umwelt draft 10 year monitoring of river red gums ad Carrington billabong and HVO dated April 2018 does not relate mining activities to be a major impact on tree health.</p> <p>Section 5 lists out recommended management actions which HVO are reviewing. Recommend wholistic review of actions in light of future mining in the immediate area and likely impacts, flooding potential, climate, groundwater and surface water monitoring, and ecological monitoring to determine a realistic way forward in relation to the management of the area which has been inconclusive to date. DPIE should be consulted in relation to findings and way forward to ensure satisfaction secured.</p>
Hunter Lowland Red Gum Forest			
3.31	The Proponent must protect all stands of the Hunter Lowland Red Gum Forest (also identified as Hunter Floodplain Red Gum Woodland Complex in the EA) endangered ecological community within the site, and adjacent lands under the control of the Proponent, as shown in Appendix 8, to the satisfaction of the Secretary .	Compliant	<p>Locations confirmed on site and in the EA.</p> <p>The current River Red Gum Strategy (2010) outlines mechanisms for protection. Section 5.2.3 of the approved River Red Gum Strategy (2010) states HVO would complete weed control and feral fauna management within the low priority sites as well as ensure grazing is kept at such a level to minimise disturbance to recruitment.</p> <p>Evidence of protection of these areas sighted during visit include as shown on Plate 7:</p> <ol style="list-style-type: none"> 1. Fencing – Areas fenced and managed to exclude access. 2. Land Management – Weed control program, service plan and summary provided to auditor.

Cond	06_0261 Condition	Status	Evidence
			3. Supplemental planting was also observed in the field to be both successful and also with substantial die back (see Plate 8 & 9). See further discussion in Sch 3 Cond 30 above.
Habitat Management Areas			
3.32	<i>Deleted</i>		
Strategic Study Contribution			
3.33	If, during the project, the Department or the OEI commissions a strategic study into the regional vegetation corridor stretching from the Wollemi National Park to the Barrington Tops National Park, then the Proponent must contribute a reasonable amount, up to \$10,000, towards the completion of this study.	Not Triggered	HVO has not been approached to provide funding within audit period (per comms AS).
Biodiversity Management Plan			
3.33a	The Proponent must prepare a Biodiversity Management Plan to the satisfaction of the Secretary. This plan must: (a) be submitted to the Secretary for approval within 3 months of the determination of Modification 5, unless otherwise agreed by the Secretary; (b) be prepared in consultation with the OEI by a suitably qualified and experienced person/s; (c) describe the short, medium, and long term measures to be undertaken to manage the remnant vegetation and fauna habitat on the site and implement the Biodiversity Offset Strategy (see condition 29); (d) describe the measures to be undertaken to avoid the Southern Biodiversity Area or Northern Biodiversity Area located within the site (see condition 29B); (e) incorporate the River Red Gum Strategy (see condition 30); (f) describe the measures to be undertaken to protect the Hunter Lowland Red Gum Forest endangered ecological community (see condition 31);	Compliant	HVO Integrated Biodiversity Management Plan (EMM 2018). (a) Viewed DPIE approval letter dated 2/8/18. Recommend including approval letter in appendix in future. BMP was submitted to DPIE on 25/7/18 in accordance with approved extension by DPIE as per letter dated 11/5/18 allowing the BMP to be submitted by 27/7/18. (b) Appendix A of the BMP provides evidence that OEI was consulted. BMP was prepared by Berlinda Ezzy from EMM. (c) Section 2 summarises Biodiversity Offset Strategy and implementation requirements are outlined. Section 3 describes measures to manage remnant vegetation and fauna habitat on operational land. Section 4 describes management of biodiversity Areas and values that occur outside the approved disturbance areas. (d) Section 4 outlines location and values of Southern and Northern Biodiversity Areas and how HVO will ensure they are not impacted. (e) Section 4 describes the River Red Gum communities on site and commitments in the River Red Gum Strategy consistent with the River Red Gum Strategy (see response to Sch 3 Cond 30). (f) Section 4 describes the Hunter Lowland Red Gum Forest and identifies their location on site. Management measures are outlined.

Cond	06_0261 Condition	Status	Evidence
	<p>(g) include detailed performance and completion criteria for evaluating the performance of the Biodiversity Offset Strategy and include triggers for remedial action, where these performance or completion criteria are not met;</p> <p>(h) include a detailed description of the measures to be implemented on the site and in the biodiversity area/s for:</p> <ul style="list-style-type: none"> • protecting vegetation and fauna habitat outside the approved disturbance area on the site; • enhancing the quality of existing vegetation, vegetation connectivity and fauna habitat on the site and in the offset areas; • minimising clearing and avoid unnecessary disturbance; • maximising the salvage of resources within the approved disturbance area for beneficial reuse; • collecting and propagate seed; • utilising vegetation for visual screening of the site; • minimising the impacts on fauna on site, including undertaking pre-clearance surveys; • managing salinity; • controlling weeds and feral pests; • controlling erosion; • managing grazing and agriculture on the site; • controlling access; and • manage bushfire hazards; <p>(i) be integrated with rehabilitation for the site;</p> <p>(j) include a seasonally-based program to monitor and report on the effectiveness of the above measures, progress against the detailed performance and completion criteria, and any progressive improvements</p>		<p>(g) Section 2 outlines completion criteria for the Biodiversity Offset Strategy and remedial actions. See discussion at Sch 3 Cond 29.</p> <p>(h) Section 3 provides adequate information on these requirements for operational lands. Section 4 provides adequate information on the applicable requirements for non-operational lands and biodiversity areas. See discussion at Sch 3 Cond 35.</p> <p>(i) Section 3 summarises proposed rehabilitation. Full details in the MOP (see Sch 3 Cond 36).</p> <p>(j) Section 3 provides monitoring proposed for operational areas, Section 4 monitoring for non-operational areas. Section 6 provides a summary of monitoring and reporting for HVO South.</p> <p>(k) Section 5 summarises Groundwater monitoring program and trigger levels for remedial action associated with Groundwater Dependent Ecosystems and riparian vegetation. See discussion at Sch 3 Cond 26C.</p> <p>(l) Section 2 identifies potential risks to implementation of the biodiversity offset strategy and mitigation measures. See discussion at Sch 3 Cond 29</p> <p>(m) Section 1.3.4. Viewed example GDP: eGDP-HVO-0028 issued 1/2/18 relating to the Riverview pit advance providing standard management conditions, review, approval and additional comments (if required) from specialists in cultural heritage, environment, land property and tenements, regulatory approvals, water, offsets, rehabilitation and technical services. Viewed email dated 11/4/18 from EMM Consulting providing a summary of a pre-clearance survey identifying fauna and flora within the proposed disturbance area. It confirmed fauna were out of breeding season.</p>

Cond	06_0261 Condition	Status	Evidence
	<p>that could be implemented to improve biodiversity outcomes;</p> <p>(k) monitor and report on the impacts of the project on groundwater dependent ecosystems and riparian vegetation consistent with the Groundwater Monitoring Program, and identify trigger levels for the remediation of any material impacts to these ecosystems;</p> <p>(l) identify the potential risks to the successful implementation of the Biodiversity Offset Strategy, and include a description of the contingency measures to be implemented to mitigate against these risks; and</p> <p>(m) include details of who would be responsible for monitoring, reviewing, and implementing the plan.</p> <p>The Proponent must implement the Biodiversity Management Plan as approved by the Secretary.</p> <p><i>Note: Management measures relating to the Biodiversity Offset Strategy may be addressed via equivalent measures required as part of the long term security arrangement under condition 29A.</i></p>		
Progressive Rehabilitation			
3.34	<p>The Proponent must rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance. All reasonable steps must be taken to minimise the total area exposed at any time. Interim stabilisation and temporary vegetation strategies must be employed when areas prone to dust generation, soil erosion and weed incursion cannot be permanently rehabilitated.</p> <p><i>Note: It is accepted that some parts of the site that are</i></p>	Compliant	<p>Proposed rehabilitation is summarised in Section 3 of the BMP. Reviewed MOP progress. Inspected and auditor satisfied that all reasonable steps are taken to minimise exposed areas. There are examples of temporary rehabilitation through the use of cover crops including the use of natives which may well be disturbed again, but are currently creating valuable soil protection and improvement as well as enhancing a native target species seedbank in the soil. This practice is worth acknowledging as best practice temporary rehabilitation as it reduces the chances of exotic species and manages the soil in the short</p>

Cond	06_0261 Condition	Status	Evidence
	<i>progressively rehabilitated may be subject to further disturbance at some later stage of the project.</i>		term using long term strategies. Examples of progressive rehabilitation and current progress can be seen in Plates 10- 12.
Rehabilitation Objectives			
3.35	The Proponent must rehabilitate the site to the satisfaction of the Secretary responsible for DRG. This rehabilitation must be generally consistent with the proposed rehabilitation activities described in the documents listed in condition 2 of Schedule 2 (and shown conceptually in the figure in Appendix 6), and comply with the objectives in Table 16.	Not Triggered	<p>The rehabilitation on site varies in age and quality and is significantly impacted by rainfall over recent years. In general, the quality of rehabilitation is adequately progressing to post mining targets. There are some areas which require intervention to bring the rehabilitation back on track to targets, however this is a small percentage of the site, and mainly caused by erosion of soil material. It is recommended that soil be re-spread over these areas rather than alternative ameliorants given the location is typically on the steeper slopes. It is important however that surface water management and surface preparation maximises the opportunity for infiltration and diversion of surface flows.</p> <p>Drainage structures were inspected and appear to be constructed and maintained in accordance with the Blue Book.</p> <p>Soil stockpiles are managed well, sown with a mix of natives and ground covers as soon as shaped, less than 3m, and located in close proximity to where the material will be re-spread (see Plate 13).</p> <p>The intended post mining land use is considered suitable for the grassland areas to support grazing, with some areas now under grazing leases, indicating the land will be managed as a grazing enterprise whilst being monitored for impacts.</p> <p>Weed management remains a priority on site, especially Galenia and over time Rhodes Grass. It was noted on site that areas of heavy infestation of Roly Poly were present and will require attention (See Plate 14).</p>

Cond	06_0261 Condition	Status	Evidence																				
	<p><i>Table 16: Rehabilitation Objectives</i></p> <table border="1"> <thead> <tr> <th>Feature</th> <th>Objective</th> </tr> </thead> <tbody> <tr> <td>All areas of the site affected by the project</td> <td> <ul style="list-style-type: none"> • Safe, stable and non-polluting • Fit for the intended post-mining land use/s </td> </tr> <tr> <td>Areas proposed for native ecosystem re-establishment</td> <td> <ul style="list-style-type: none"> • Establish self-sustaining native woodland ecosystems characteristic of vegetation communities found in the local area </td> </tr> <tr> <td>Areas proposed for agricultural land</td> <td> <ul style="list-style-type: none"> • Establish/restore grassland areas to support sustainable agricultural activities </td> </tr> <tr> <td>Final Landform</td> <td> <ul style="list-style-type: none"> • Achieve the nominated land capability classification • Stable and sustainable for the intended post-mining land use/s • Integrated with surrounding natural landforms • Incorporate micro-relief and drainage lines that are consistent with surrounding topography, to the greatest extent practicable • Maximise surface water drainage to the natural environment (excluding final void catchment) • Protect and maintain, to the greatest extent practicable, existing views of the Wollemi National Park and associated escarpments for residences of Maison Dieu </td> </tr> <tr> <td>Final void</td> <td> <ul style="list-style-type: none"> • Designed as long term groundwater sink to maximise ground water flows across backfilled pits to the final void • Minimise to the greatest extent practicable: <ul style="list-style-type: none"> - the size and depth of final voids; - the drainage catchment of final voids; - any high wall instability risk; and - the risk of flood interaction </td> </tr> <tr> <td>Surface infrastructure of the project</td> <td> <ul style="list-style-type: none"> • Decommissioned and removed, unless DRG agrees otherwise </td> </tr> <tr> <td>Rehabilitation materials</td> <td> <ul style="list-style-type: none"> • Materials from areas disturbed under this approval (including topsoils, substrates and seeds) are to be recovered, managed and used as rehabilitation resources, to the greatest extent practicable </td> </tr> <tr> <td>Water quality</td> <td> <ul style="list-style-type: none"> • Water retained on the site is fit for the intended post-mining land use/s • Water discharged from the site is suitable for receiving waters and fit for aquatic ecology and riparian vegetation </td> </tr> <tr> <td>Community</td> <td> <ul style="list-style-type: none"> • Ensure public safety • Minimise adverse socio-economic effects associated with mine closure </td> </tr> </tbody> </table> <p><i>Note: The rehabilitation objectives detailed in Table 16 apply to the entire site; however, they do not require any additional earthmoving works to be undertaken to landforms that have been constructed under previous approvals or prior to the approval of Modification 5.</i></p>	Feature	Objective	All areas of the site affected by the project	<ul style="list-style-type: none"> • Safe, stable and non-polluting • Fit for the intended post-mining land use/s 	Areas proposed for native ecosystem re-establishment	<ul style="list-style-type: none"> • Establish self-sustaining native woodland ecosystems characteristic of vegetation communities found in the local area 	Areas proposed for agricultural land	<ul style="list-style-type: none"> • Establish/restore grassland areas to support sustainable agricultural activities 	Final Landform	<ul style="list-style-type: none"> • Achieve the nominated land capability classification • Stable and sustainable for the intended post-mining land use/s • Integrated with surrounding natural landforms • Incorporate micro-relief and drainage lines that are consistent with surrounding topography, to the greatest extent practicable • Maximise surface water drainage to the natural environment (excluding final void catchment) • Protect and maintain, to the greatest extent practicable, existing views of the Wollemi National Park and associated escarpments for residences of Maison Dieu 	Final void	<ul style="list-style-type: none"> • Designed as long term groundwater sink to maximise ground water flows across backfilled pits to the final void • Minimise to the greatest extent practicable: <ul style="list-style-type: none"> - the size and depth of final voids; - the drainage catchment of final voids; - any high wall instability risk; and - the risk of flood interaction 	Surface infrastructure of the project	<ul style="list-style-type: none"> • Decommissioned and removed, unless DRG agrees otherwise 	Rehabilitation materials	<ul style="list-style-type: none"> • Materials from areas disturbed under this approval (including topsoils, substrates and seeds) are to be recovered, managed and used as rehabilitation resources, to the greatest extent practicable 	Water quality	<ul style="list-style-type: none"> • Water retained on the site is fit for the intended post-mining land use/s • Water discharged from the site is suitable for receiving waters and fit for aquatic ecology and riparian vegetation 	Community	<ul style="list-style-type: none"> • Ensure public safety • Minimise adverse socio-economic effects associated with mine closure 		
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3.36	<p>The Proponent must prepare a Rehabilitation Management Plan for the project to the satisfaction of the DRG. This plan must:</p> <p>(a) be prepared by suitably qualified expert/s;</p> <p>(b) be prepared in consultation with the Department, CLWD,</p>	Compliant	<p>Mining Operations Plan (MOP) HVO South January 2019</p> <p>(a) Table of contents contains MOP expert statement. Prepared by Michael Lloyd with over 20 years' experience in rehabilitation ecology.</p> <p>(b) Section 1.4. Viewed email evidence of consultation with CLWD dated</p>																				

Cond	06_0261 Condition	Status	Evidence
	<p>and Council by a suitably qualified and experienced person/s;</p> <p>(c) be submitted for approval within 3 months of the determination of Modification 5, unless otherwise approved by the Secretary;</p> <p>(d) be prepared in accordance with any relevant DRG Guideline;</p> <p>(e) describe how the rehabilitation of the site would achieve the objectives identified in Table 16 and be integrated with the measures in the Biodiversity Management Plan;</p> <p>(f) include detailed performance and completion criteria for evaluating the performance of progressive and final rehabilitation and include triggers for remedial action, where these performance or completion criteria are not met;</p> <p>(g) describe the measures to be implemented to meet the performance and completion criteria, to ensure compliance with the relevant conditions of this approval and to address all aspects of rehabilitation including mine closure, final landform (including the final void), final land use/s, and water management in the final landform; (g) include procedures for the use of interim stabilisation and temporary vegetation strategies, where reasonable to minimise exposed areas;</p> <p>(h) include a program to monitor, independently audit and report on the effectiveness of the rehabilitation measures, and progress against the performance and completion criteria;</p> <p>(i) identify the potential risks to the successful implementation of rehabilitation, and include a description of the contingency measures to be implemented to</p>		<p>21/5/18, 13/6/18 and 19/6/18. Viewed letter dated 26/2/19 from the Resources (attached to the front of the MOP) state comments have been received by DPIE (email from Melissa Anderson dated 25/2/19) and will be incorporated in the next MOP. Viewed email evidence of HVO seeking comments on the draft 2018 MOP from DRE, DPI-Water, CCC, Singleton Council and DPIE. MOD5 was approved 28/2/18 with original version of the MOP submitted on the 11/7/18. Approved on the 25/7/18. Viewed letter from DPIE dated 11/5/18 which allowed an extension of time to submit this plan until 27/7/18.</p> <p>(c) Section 1.2 ESG3: Mining Operations Plan (MOP) Guidelines (Sept 2013).</p> <p>(d) Sections 5.</p> <p>(e) Section 6.4 & 6.5 Performance Criteria, measures and indicators. Section 9: Trigger Action Response Plan</p> <p>(f) Section 7 Rehabilitation Implementation. See discussion in Sch 3 Cond 35.</p> <p>(g) Section 8 Rehabilitation Monitoring and Reporting.</p> <p>(h) Section 9 Trigger Action Response Plan.</p> <p>(i) Section 11.2 Implementation Table 37 Responsibilities for implementation of the MOP.</p> <p>Viewed letter from Resources Regulator dated 26/2/19 requiring an updated MOP to be provided with the approval of the MOP being restricted to 30/7/20 to allow for submission of information required by the Resources Regulator. Viewed letter dated 14/1/19 from DPIE which allows HVO to waive the requirement to consult with all agencies/authorities other than DPIE. HVO is encouraged to review the opportunity to combine the HVO North and South MOP's into the one MOP to increase efficiency and reduce administrative burden.</p>

Cond	06_0261 Condition	Status	Evidence
	<p>mitigate against these risks; and</p> <p>(j) include details of who would be responsible for monitoring, reviewing, and implementing the plan.</p> <p>The Proponent must implement the Rehabilitation Management Plan as approved by the Secretary.</p>		
3.37	<i>Deleted</i>		
3.38	<i>Deleted</i>		
Conservation and Biodiversity Offset Implementation Bond			
3.39	<p>By the end of March 2013, the Proponent must lodge a conservation bond with the Department to ensure that the Biodiversity Offset Strategy is implemented in accordance with the performance and completion criteria of the Biodiversity Management Plan.</p> <p>The sum of the bond must be determined by:</p> <p>(a) calculating the full cost of implementing the offset strategy (other than land acquisition costs); and</p> <p>(b) employing a suitably qualified quantity surveyor to verify the calculated costs.</p> <p>The calculation of the conservation bond must be submitted to the Department for approval at least 1 month prior to the lodgement of the bond.</p> <p>The conservation bond must be reviewed and if required, an updated bond must be lodged with the Department within 3 months following:</p> <p>(a) any update or revision to the Biodiversity Management Plan;</p> <p>(b) the completion of an Independent Environmental Audit in</p>	Compliant	<p>a &b) Viewed Conservation Deed signed 5 October 2016.</p> <p>Viewed bank guarantee dated 5/10/16 for \$751,626 which does not appear to have an expiry date for HVO Pty Ltd for the Goulburn River Conservation Area.</p> <p>Viewed letter from DPIE 12/9/16 accepting the bond calculation.</p> <p>In the case of the following, the bond has to be updated and resubmitted to DPIE at the following occasions:</p> <p>a) This condition was added on 28 February 2018. The BMP is dated 25 June 2018 therefore no review is yet required. Recommend that it is confirmed with DPIE that this condition applies to the update of the Goulburn River Management Plan not the BMP described in Sch 3 Cond 33a</p> <p>b) Not triggered as the 2016 IEA did not have recommendations relating to the BOS</p> <p>c) No request has been made by the Secretary.</p>

Cond	06_0261 Condition	Status	Evidence
	<p>which recommendations relating to the implementation of the Biodiversity Offset Strategy have been made; or</p> <p>(c) in response to a request by the Secretary.</p> <p>If the offset strategy is completed generally in accordance with the completion criteria in the Biodiversity Management Plan to the satisfaction of the Secretary, the Secretary will release the bond.</p> <p>If the offset strategy is not completed generally in accordance with the completion criteria in the Biodiversity Management Plan, the Secretary will call in all or part of the conservation bond, and arrange for the satisfactory completion of the relevant works.</p> <p>With the agreement of the Secretary, this bond may be combined with rehabilitation security deposit administered by DRG, and may be combined with bonds in respect of offsets required for Warkworth Mine.</p>		
ABORIGINAL HERITAGE			
Aboriginal Heritage Management Plan			
3.40	<p>The Proponent must prepare an Aboriginal Heritage Management Plan for the project to the satisfaction of the Secretary. The Plan must:</p> <p>(a) be prepared in consultation with OEH and the Aboriginal community;</p> <p>(b) be submitted to the Secretary for approval within 12 months of this approval or as otherwise agreed by the Secretary; and</p> <p>(c) include:</p> <ul style="list-style-type: none"> • measures to be taken to avoid impacts to Aboriginal cultural heritage values at all stages of the project. If impacts are unavoidable, mitigation 	Not Compliant	<p>The Aboriginal Cultural Heritage Management Plan (ACHMP) was approved by DP&I and Hunter Valley Aboriginal Cultural Working Group as verified in the 2010 IEA.</p> <p>The 2013 IEA confirmed the Plan meets the requirements of this condition.</p> <p>Field work programs took place in February 2019, June 2019, September 2019, October 2019, Jan 2018, June 2018, March-April 2017, July 2017, December 2016.</p> <p>Compliance inspections (including attendance of RAPs) were conducted on the following:</p> <ul style="list-style-type: none"> • 7 December 2018 which deemed that all sites had been managed in conformance with AHMP requirements (Section 6.5.3 2018 Annual

Cond	06_0261 Condition	Status	Evidence
	<p>measures are to be negotiated with the Aboriginal community;</p> <ul style="list-style-type: none"> • a program for the recording, salvage and surface collection of Aboriginal objects/sites within the site; • a program for the conservation of the other Aboriginal objects/sites within the site, including measures to secure, analyse and record the objects/sites; • definition of restricted access zones to protect Sites 26-44, 47-58, 84-100, 102-104 and 107-109 from disturbance; • measures to ensure potential impacts to Sites 26-44, 47-58 and 107-109 by the proposed rail spur and loop are avoided; • measures to provide for the controlled collection of Sites 1-24, 59-79, 80-83, 101 and 105-106, where avoidance of impacts by planned mining and infrastructure activities is not possible; • provision for a long term 'keeping place' and care and control plan for any Aboriginal objects recovered from the site; • provisions for Aboriginal cultural heritage awareness training for all HVO South employees, and as a component of mine site inductions for contractors working at HVO South; • a description of the measures that would be implemented if any Aboriginal skeletal remains are discovered during the project; • a protocol for the ongoing consultation and involvement of the Aboriginal community in the conservation and management of the Aboriginal 		<p>Review)</p> <ul style="list-style-type: none"> • December 2017 which deemed that all sites have been managed in conformance with the ACHMP requirements (Section 6.6.3 2017 Annual Review) • 3 September 2019, A total of 45 aboriginal heritage sites were inspected focusing on areas west of 'South Lemington Pit 1'. • 29-31 October 2019, viewed draft 2019 Compliance Audit Inspection report by Arrow Heritage dated November 2019 which did not identify any major issues but included recommendations to manage these sites. <p>There were no incidents nor any unauthorised disturbance caused to cultural heritage sites at HVO during the audit period as per relevant Annual Reviews.</p> <p>Provision 25 states twice yearly compliance inspections for the life of the mine and HVO could initiate compliance inspections as it determines necessary (e.g. incident investigations), where HVO do this it will invite representatives of the Aboriginal Stakeholders to participate as well. Two compliance inspections were completed in 2019 however no evidence provided of two inspections for 2018 or 2017 as required</p> <p>Ongoing consultation with the Aboriginal Cultural Heritage Working Group (CHWG) was established for consultation on all matters relating to cultural heritage and comprises of representatives from HVO and RAPs. Cultural Heritage Working Groups holds meetings at least once a year. With approximately 6-8 groups attending. Viewed example minutes.</p> <p>Sites 1-24 were salvaged under s90 permit 1102088.</p> <p>Viewed Aboriginal Site Impact Recording Forms for Sites 80-83 which show they were salvaged 13/10/14.</p> <p>Viewed draft 2019 Compliance Audit Inspection report by Arrow Heritage dated November 2019 for both the north and south sites which includes recommendations for fixing barricading of some sites and updating the HVO Aboriginal sites database with any findings from this inspection.</p>

Cond	06_0261 Condition	Status	Evidence
	<p>heritage of the objects/sites; and</p> <ul style="list-style-type: none"> a protocol for the regular review of the Plan's effectiveness. <p>The Proponent must implement the Aboriginal Heritage Management Plan as approved by the Secretary.</p> <p>Notes: The Aboriginal cultural heritage sites and site numbers referenced in this condition are provided in Section 12 and Annex M of the EA.</p>		<p>Viewed recommendations from 2018 compliance inspection which shows all actions were completed or continuing with the exception of two sites yet to be salvaged and pegging out of photographic point locations. HVO have logged the coordinates but pegging is yet to be installed.</p> <p>Viewed site familiarisation checklist which includes a section on Aboriginal heritage.</p> <p>No skeletal remains found within audit period (PB per comms).</p>
TRANSPORT AND UTILITIES			
Monitoring of Coal Transport			
3.41	The Proponent must keep records of the amount of coal transported from the site each year, and include these records in the Annual Review .	Compliant	Coal Transport records are recorded in the following tables: 2018 AR: Table 12 – 12.9 Mt from site. 2017 AR: Table 12 – 14.7 Mt from site. 2016AR: Table 12 – 13.6 Mt from site.
Coal Haulage Limits			
3.42	The Proponent must not transport coal from the project by public roads, unless otherwise approved by the Secretary .	Compliant	Table 12 in the 2018-2016 AR's confirm all coal transported off site is via rail. All coal during 2019 YTD has been transported off site via rail (DB per comms).
Relocation of Comleroi Road			
3.43	The Proponent must : (a) prior to construction, consult with all road users and Council about the proposed road works and their timing; (b) develop and implement procedures for road closures and diversions to be undertaken during the construction of the relocated road; and (c) construct the relocated section of the road to the satisfaction of Council.	Not Triggered	These works are related to the South Lemington Pit 2. As per Modification 5 Section 3.2.2 no mining in either South Lemington Pits until 2022 (Stage 2). These works have not been undertaken within audit period.
Jerrys Plains Road Heavy Equipment Crossing			
3.44	Prior to the relocation of any heavy equipment, to or from the project, that would require Jerrys Plains Road to be closed to	Not Triggered	This has not occurred during the audit period (per comms. DB)

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	public traffic, the Proponent must obtain approval for each planned road closure from RMS and then undertake each transfer of equipment across Jerrys Plains Road in accordance with any approval obtained from RMS for this purpose		
Coal Conveyor to HVO North			
3.45	The Proponent must design and construct the conveyor to HVO North to the satisfaction of " and CLWD. A copy of all final documentation must be provided to the Secretary within 6 months of the completion of its construction.	Not Triggered	Not built to date (per comms. DB) and site visit confirmed.
3.46	<i>Deleted</i>		
Hunter Valley Gliding Club Co-operative Limited			
3.47	While HVGC continues to use its facilities within the site, the Proponent must maintain an agreement with HVGC to address the potential impact of the mine on the use and operation of HVGC's facilities, including the potential impacts to the flight paths from dragline operations. This agreement must take into consideration the impacts of the dragline position on: <ul style="list-style-type: none"> • useable length of the runway; • interference with flight paths; and • guidelines of the Civil Aviation Safety Authority. <p><i>Note: This condition shall cease to operate if both parties agree to terminate the agreement and the need for an agreement.</i></p>	Compliant	Viewed the Concession and Mitigation Agreement 5/2/13 between Coal and Allied and the HVGC. Agreement does not appear to have an expiry/renewal date. No active dragline in place in Riverview Pit during the audit period (per comms DB).
3.48	The Proponent must not conduct any activity associated with the project above the obstacle limitation surface (OLS) as shown in Figure 2.3 of the HVO South Coal Project Response to Submissions Report (July 2008) unless agreed with HVGC.	Not Compliant	2018 AR section 11.4.1 states an incident was identified after a query from the HVGC was followed up by HVO on the 19/6/18 that identified part of an overburden dump in the Glider Pit was approximately 10m above the OLS without obtaining prior approval from the HVGC. It was identified that the OLS was exceeded between the 22-28 April 2018. The HVO Technical Services team in August 2017 designed the dump plan and associated risk assessment which identified the need to notify

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			<p>the HVGC of the planned exceedance of the OLS and to obtain the agreement prior to works. This action was communicated internally however not completed.</p> <p>Viewed note dated 21/6/18 to Leah Cook (DPIE) notifying them of the incident.</p> <p>Viewed email dated 27/6/18 from AS containing the incident report to Leah Cook at DPIE. Viewed letter dated 31/8/19 from DPIE asking to show cause why they should not take action which required a response by 17/9/18. Viewed letter from AS dated 17/9/19 responding to DPIE which set out the actions by HVO and prevention methods. Viewed warning letter from DPIE dated 27/11/18 with no further action.</p> <p>HVO removed the 10m exceedance the week of the 25 June 2018 and completed the reshaping of the landform by 21 July 2018.</p> <p>HVO technical services team have since implemented an action tracking system within the mine planning process to ensure that actions pertaining to HVGC are carried out and can be tracked and monitored.</p>
3.49	<p>The Proponent must develop an Amenity Management Plan for HVGC's facilities within the site. This Plan must:</p> <p>(a) be prepared in consultation with HVGC;</p> <p>(b) be submitted to the Secretary for approval 6 months prior to the commencement of mining in the Riverview South East Extension Area, or otherwise agreed by the Secretary;</p> <p>(c) include a risk assessment to identify those circumstances most likely to generate impacts from mining operations on gliding activities and use of the club's residential facilities;</p> <p>(d) include details of any proposed modifications to the HVO South mine plan to mitigate the potential impacts identified in the risk assessment required under paragraph (c);</p> <p>(e) identify and implement management measures for mining</p>	Compliant	<p>The Amenity Management Plan (AMP) for the Hunter Valley Gliding Club (HVGC) facilities within the site includes the following:</p> <p>a) Viewed letter dated 29/11/12 from the HVGC to the Department with no issues to the proposed HVGC MP (Appendix E).</p> <p>b) Viewed approval letter from the DG (Appendix F of AMP).</p> <p>c) Section 2 contains a risk assessment of activities that could affect gliding activities of the club.</p> <p>d) Section 3 contains changes to the HVO South mine plan.</p> <p>e & f) Section 5 of the AMP provides required management measures for noise and air impacts</p> <p>g) Section 5.4.2 contains information on monitoring.</p> <p>h) Section 6 of the AMP provides procedures for notification HVGC.</p> <p>Mining is not proposed in the South Lemington Pit 2 until 2022 as per the Modification 5 mine staging, therefore no review has been completed to date.</p>

Cond	06_0261 Condition	Status	Evidence
	<p>activities to ensure that air safety impacts are minimised and the OLS limits in condition 48 are adhered to;</p> <p>(f) identify and implement management measures for mining activities to ensure that air quality and noise emissions meet respective impact assessment criteria, or obtain written agreement from HVGC to exceed these criteria;</p> <p>(g) include a program to monitor and report on the effectiveness of the mine plan modifications required under paragraph (d) and the management measures required under paragraphs (e) and (f); and</p> <p>(h) include notification procedures for prior notification of potentially disruptive activities at either HVO South or the HVGC site and procedures for notifying HVGC of any exceedances of the relevant impact assessment criteria and/or OLS limits at HVO South,</p> <p>to the satisfaction of the Secretary.</p> <p>If the Proponent and HVGC cannot agree on the level or composition of the Amenity Management plan, then either party may refer the matter to the Secretary for resolution.</p> <p>Should HVGC cease to operate its facilities at the site, the Proponent's obligations under this condition shall cease.</p> <p>The Amenity Management Plan, must be reviewed in consultation with HVGC and if necessary updated, prior to the commencement of mining in South Lemington Pit 2.</p>		<p>Viewed HVGC minutes dated 19/9/19 which refers to updating the management plan.</p>
VISUAL AMENITY			
Lighting Emissions			
3.50	<p>The Proponent must:</p> <p>(a) ensure no external lights shine above the horizontal;</p> <p>(b) ensure that all external lighting associated with the project</p>	Compliant	<p>No complaints regarding lighting during audit period.</p> <p>Viewed EMM lighting Review dated 4/6/18 which concluded that no improvements are currently required and in accordance with the AS4282.</p>

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	<p>complies with Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting, or its latest version, and</p> <p>(c) take all practicable measures to mitigate off-site lighting impacts from the project to the satisfaction of the Secretary.</p>		
Visual Impact Mitigation			
3.51	<p>Within 12 months of this approval, or otherwise agreed by the Secretary, the Proponent must prepare a visual impact mitigation report for the project to the satisfaction of the Secretary. This report must:</p> <p>(a) be prepared in consultation with Council;</p> <p>(b) identify the privately-owned residences and public roads that are likely to experience significant additional visual impacts from the project during its operation; and</p> <p>(c) describe (in general terms) the mitigation measures that could be implemented to reduce the visibility of the mine from these residences and roads.</p>	Not Triggered	Completed. Verified within previous audit (2016 IEA)
3.52	<p>Within 3 months of the Secretary approving this report, the Proponent must advise all owners of residences identified in the report that they are entitled to mitigation measures to reduce the visibility of the mine from their properties and reach agreement with Council about mitigation measures (if any) to be implemented for public roads. If the Proponent and Council cannot agree about these measures, the matter must be referred by either party to the Secretary for resolution.</p> <p><i>Note: The additional visual impact mitigation measures must be aimed at reducing the visibility of the mine from significantly affected residences and do not necessarily require measures to reduce visibility of the mine from other locations on the affected properties. The additional visual impact mitigation measures do</i></p>	Not Triggered	As per Sch 3 Cond 51 above.

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	<p>not necessarily have to include measures on the affected property itself (i.e. the additional measures may consist of measures outside the affected property boundary that provide an effective reduction in visual impacts).</p>		
GREENHOUSE & ENERGY EFFICENCY			
3.53	<p>The Proponent must implement all reasonable and feasible measures to minimise greenhouse gas emissions from the project to the satisfaction of the Secretary.</p>	Not Compliant	<p>The following plans were reviewed: by Northstar</p> <ul style="list-style-type: none"> • HVO Air Quality and Greenhouse Gas Management Plan (AQGGMP), 11 February 2014 • HVO Annual Review 2016, Table 28 presents a summary of increase from 588 ktCO_{2-e}/yr (2015) to 608 ktCO_{2-e}/yr (2016) due to operational increases. • HVO Annual Review 2017, Table 28 presents a summary of increase from 608 ktCO_{2-e}/yr (2016) to 679 KtCO_{2-e}/yr (2017) • HVO Annual Review 2018 does not present a summary of CO_{2-e} emissions • Supplementary email dated 31/10/19 from HVO outlines various actions undertaken with a consequence on GHG emission reduction including (paraphrased): <ul style="list-style-type: none"> - Reduction in haul truck fleet from 90 to 82; - Short-haul dumping strategy (Riverview and West Haul-back option); - Dozer push and cast-blasting; - Drill and blast backfill reduction; - Drill and blast in-pit Orica reload facility; - Mobile crib hut; - Optimisation of load and haul fleet performance; - Removal of crib relief. <p>Northstar advises that whilst a number of the above actions may have some impact on the annualised GHG emission budget, these have not been presented in context of assessing all reasonable and feasible</p>

Cond	06_0261 Condition	Status	Evidence
			options. The AQMP Section 7 should be updated to identify opportunities for emission reductions (in the reasonable and feasible areas of electricity use, diesel and other fuels, and land management). The Annual Review should include a summary of greenhouse gas emissions against commitments in AQMP.
3.54	Deleted		
WASTE			
3.55	<p>The Proponent must:</p> <p>(a) monitor the amount of waste generated by the project;</p> <p>(b) investigate ways to reuse, recycle or minimise this waste;</p> <p>(c) implement reasonable and feasible measures to minimise this waste;</p> <p>(d) ensure irrigation of treated wastewater is undertaken in accordance with EPA's <i>Environmental Guideline for the Utilisation of Treated Effluent</i>, and</p> <p>(e) report on waste management and minimisation in the Annual Review to the satisfaction of the Secretary.</p>	Compliant	<p>HVO waste contractor (Remondis) provides monthly reports. AR 2018 (Section 6.4.3.1-4), AR 2017 (Section 6.5.1.1-4) and 2016 AR (Section 6.7.2) contains a summary of waste generated for that year and a breakdown into the following streams:</p> <ul style="list-style-type: none"> • Recycling • Sewage Treatment/Disposal • Hydrocarbons • Contaminated Soils <p>No externally reportable incidents during the audit period regarding waste. See Plates 15 & 16 showing appropriately stored waste products. 2018 AR Section 6.4.3.2 states sewage treatment plants on site treat, disinfect and re-use the treated effluent on site. Viewed schematic of HVO North main workshop trade waste system. Inputs include water from heavy vehicle washdown pad and main workshop. Output reports to mine catchment system firstly into Dam 19N, just to the south of the facility. Also viewed overview schematic of trade waste system at the south workshop facility. Inputs to the system include the heavy vehicle washdown pad, internal workshop catchment fuel farm facility. Outputs to Dam 28s reporting to the mine water catchment system. Viewed water infrastructure schematics to demonstrating the catchment containment in these areas.</p>

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3.56	Within 12 months of this approval or otherwise agreed by the Secretary, the Proponent must install and operate a wastewater treatment system with adequate capacity to treat wastewater loads from the Lemington workshop and facilities, to the satisfaction of EPA.	Not Triggered	Wastewater treatment system installed in 2011 and verified in 2014 IEA.
3.57	Except as expressly permitted in a licence under the Protection of the Environment Operations Act 1997 or by the Protection of the Environment Operations Amendment (Scheduled Activities and Waste) Regulation 2008, waste must not be: (a) received at the project site for storage, treatment, processing or disposal; or (b) disposed of at the project site.	Compliant	Not aware of any disposal of unacceptable waste in the pit within the audit period (per comms AS). Viewed June monthly update 2019 which includes slide on environmental performance on waste and made it clear no employee or contractor can bring waste onto site. Section 3.2.6.3 of the Waste Management Plan which states no more than 100 t of tyres will be stored on site at one time. Viewed Internal waste tyre tracking spreadsheet. SG confirmed that each tyre was surveyed and positioning in pit in accordance with Internal Non-Mineral Waste Management Plan. SG noted that external recycling of heavy vehicle equipment tyres is not possible at the present time.
HAZARDS			
Dangerous Goods			
3.58	The Proponent must ensure that the storage, handling, and transport of: (a) dangerous goods is done in accordance with the relevant Australian Standards, particularly AS1940 and AS1596, and the Dangerous Goods Code; and (b) explosives are managed in accordance with the requirements of DRG.	Compliant	HVO MOP (2019-2021) North Section 3.2.5 provides a summary of how dangerous goods are managed on site. Viewed explosives principal control plan (Nov 2018) which stated in section 4.2 that this plan has been developed in line with the MDG1025 Guidelines for the Use of Explosives in Open Cut Coal Mines.
Fire Control			
3.59	During the project, the Proponent must: (a) ensure that it maintains suitable equipment to respond to any fires on site; and (b) assist the rural Fire service and emergency services as much as possible if there is a fire on site.	Compliant	The Bushfire MP (Oct 2017) includes: a) Section 3 contains HVO's management measures for the site; and b) Section 3.2.3 provides the procedure to communicate with the Rural Fire Service.

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3.60	The Proponent must ensure that it maintains a Fire Management Plan for the site, in consultation with Council and the Rural Fire Service	Not Compliant	Viewed Bushfire MP (Oct 2017) which provides the management procedures for site. No evidence available of consultation with Singleton Council or the RFS. HVO is currently using the updated RFS template (AS pers comms). Recommend obtaining correspondence from Council and Rural Fire Service confirming consultation and add to appendix.
SCHEDULE 4			
ADDITIONAL PROCEDURES FOR AIR QUALITY AND NOISE MANAGEMENT			
NOTIFICATION OF LANDOWNERS			
4.1	Within 1 month of this approval, the Proponent must notify the landowners of the land listed in Table 1 in writing that they have the right to require the Proponent to acquire their land at any stage of the project (subject to the note to that Table).	Not Triggered	Completed (Verified in 2010 IEA)
4.2	If the results of monitoring required in Schedule 3 identify that impacts generated by the project are greater than the relevant impact assessment criteria in Schedule 3, except where this is predicted in the documents listed in condition 2 of Schedule 2 or where a negotiated agreement has been entered into in relation to that impact, then the Proponent must , within 2 weeks of obtaining the monitoring results, notify the Secretary , the affected landowners and 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.	Not Compliant	Air quality exceedance – PM10 24hr on the 29/7/17 at HVGC with a reading of 58µg/m ³ (refer to Sch 3 Cond 19). Viewed email to HVGC dated 27/9/17 notifying them of the exceedance and actions HVO took to correct this result. Blasting exceedance -measured overpressure levels exceeded the 120 dBL criterion at two locations (Moses Crossing, Jerrys Plains) on 17 January 2018 (refer to Sch 3 Cond 7) -Viewed copy of landholder letter dated 27/11/18 and relevant address labels of Jerrys Plains residents this letter was delivered to. However, letters were sent to landholders on the 27/11/19 which is outside of two weeks of receipt of monitoring results.
4.3	If the results of monitoring required in Schedule 3 identify that impacts generated by the project are greater than the relevant air quality impact assessment criteria in Schedule 3, then the Proponent must send the relevant landowners and tenants (including tenants of mine owned properties) a copy of the NSW	Compliant	As per Sch 4 Cond 2 above.

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	Health fact sheet entitled "Mine Dust and You" (and associated updates) in conjunction with the notification required in condition 2.		
INDEPENDENT REVIEW			
4.4	<p>If a landowner considers the project to be exceeding the impact assessment criteria in Schedule 3, except where this is predicted in the EA, then he/she may ask the Secretary in writing for an independent review of the impacts of the project on his/her land. If the Secretary is satisfied that an independent review is warranted, the Proponent must within 3 months of the Secretary's decision:</p> <p>(a) consult with the landowner to determine his/her concerns;</p> <p>(b) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to conduct monitoring on the land, to:</p> <ul style="list-style-type: none"> • determine whether the project is complying with the relevant impact assessment criteria in Schedule 3; and • identify the source(s) and scale of any impact on the land, and the project's contribution to this impact; and <p>(c) give the Secretary and landowner a copy of the independent review.</p>	Compliant	<p>Landowner (Ventra) requested the Secretary for an independent review of air quality impacts. Viewed letter from the DPIE 10/1/19 which stated HVO were required an independent reviewer.</p> <p>Viewed letter dated 22/3/19 from HVO to DPIE lists the appointment of an independent which used Benchmark monitoring to complete the monitoring and ERM to complete the report. Monitoring is set to take 12 months however the program has not begun to date due to power upgrades at the landholder.</p> <p>Viewed letter from DPIE dated 9/4/19 approving the above program and independent reviewers. Regular correspondence with DPIE will be conducted regarding this program (per comms DB).</p>
4.5	<p>If the independent review determines that the project is complying with the relevant impact assessment criteria in Schedule 3, then the Proponent may discontinue the independent review with the approval of the Secretary.</p> <p>If the independent review determines that the project is not complying with the relevant impact assessment criteria in Schedule 3, and that the project is primarily responsible for this non-compliance, then the Proponent must:</p>	Not Triggered	Not Triggered

Cond	06_0261 Condition	Status	Evidence
	<p>(a) implement all reasonable and feasible measures, in consultation with the landowner, to ensure that the project complies with the relevant criteria, and conduct further monitoring to determine whether these measures ensure compliance; or</p> <p>(b) secure a written agreement with the landowner to allow exceedances of the relevant impact assessment criteria, to the satisfaction of the Secretary.</p> <p>However, if the further monitoring referred to under paragraph (a) above determines that the project is complying with the relevant impact assessment criteria, then the Proponent may discontinue the independent review with the approval of the Secretary.</p> <p>If the independent review determines that the project is not complying with the relevant land acquisition criteria in Schedule 3, and that the project is primarily responsible for this non-compliance, then the Proponent must offer to acquire all or part of the landowner's land in accordance with the procedures in conditions 7-9 below, to the satisfaction of the Secretary.</p>		
4.6	<p>If the independent review determines that the relevant impact assessment 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:</p> <p>(a) implement all reasonable and feasible measures, in consultation with the landowner, to ensure that the relevant impact assessment criteria are complied with, and conduct further monitoring to determine whether these measures ensure compliance; or</p> <p>(b) secure a written agreement with the landowner and other relevant mines to allow exceedances of the relevant impact assessment criteria in Schedule 3, to the satisfaction of the Secretary.</p>	Not Triggered	Not Triggered

Cond	06_0261 Condition	Status	Evidence
	<p>If the further monitoring referred to under paragraph (a) above 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 Secretary.</p> <p>If the independent review determines that the relevant land acquisition criteria in Schedule 3 are being exceeded, but that more than one mine is responsible for this non-compliance, then the Proponent shall acquire all or part of the landowner's land on an equitable basis as possible with the relevant mine/s, in accordance with the procedures in conditions 7-9 below, to the satisfaction of the Secretary.</p>		
LAND ACQUISITION			
4.7	<p>Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent shall make a binding written offer to the landowner based on:</p> <p>(a) the current market value of the landowner's interest in the property at the date of this written request, as if the property was unaffected by the project the subject of the project application, having regard to the:</p> <ul style="list-style-type: none"> • existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and • presence of improvements on the property and/or any approved building or structure which has been physically commenced at the date of the landowner's written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of 'additional noise mitigation measures' in condition 4 of schedule 3, 'additional 	Not Triggered	Refer to Sch 3 Cond 1

Cond	06_0261 Condition	Status	Evidence
	<p>air quality impact mitigation measures' in condition 21 of schedule 3, or 'additional visual impact mitigation measures' in condition 52 of schedule 3;</p> <p>(b) the reasonable costs associated with:</p> <ul style="list-style-type: none"> • relocating within the Singleton or Muswellbrook local government areas, or to any other local government area determined by the Secretary; • obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and <p>(c) reasonable compensation for any disturbance caused by the land acquisition process.</p> <p>However, if following 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 Secretary for resolution.</p> <p>Upon receiving such a request, the Secretary shall request the President of the NSW Division of the Australian Property Institute (the API) to appoint a qualified independent valuer to:</p> <p>(a) consider submissions from both parties;</p> <p>(b) determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above;</p> <p>(c) prepare a detailed report setting out the reasons for any determination; and</p> <p>(d) provide a copy of the report to both parties.</p> <p>Within 14 days of receiving the independent valuer's report, the Proponent must make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.</p>		

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	<p>However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Secretary shall determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above and the independent valuer's report. Within 14 days of this determination, the Proponent must make a binding written offer to the landowner to purchase the land at a price not less than the Secretary's determination.</p> <p>If the landowner refuses to accept the Proponent's binding written offer under this condition within 6 months of the offer being made, then the Proponent's obligations to acquire the land shall cease, unless the Secretary determines otherwise.</p>		
4.8	The Proponent must pay for all reasonable costs associated with the land acquisition process described in Condition 7 above.	Not Triggered	Not Triggered
4.9	If the Proponent and landowner agree that only part of the land must be acquired, then the Proponent must also pay all reasonable costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of the plan at the Office of the Registrar-General.	Not Triggered	Not Triggered
SCHEDULE 5			
ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING AND REPORTING			
ENVIRONMENTAL MANAGEMENT			
Environmental Management Strategy			
<i>Note: The requirements for the Environmental Management Strategy may, with the Director-General's approval, be satisfied as a component of CNA's Hunter regional environmental management strategy.</i>			

Cond	06_0261 Condition	Status	Evidence
5.1	<p>The Proponent must prepare an Environmental Management Strategy for the project to the satisfaction of the Secretary. This strategy must:</p> <p>(a) be submitted to the Secretary for approval within 6 months of this project approval or otherwise agreed by the Secretary;</p> <p>(b) provide for the strategic context for the environmental management of the project;</p> <p>(c) identify the statutory requirements that apply to the project;</p> <p>(d) describe the procedures that would be implemented to:</p> <ul style="list-style-type: none"> • 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; <p>(e) include:</p> <ul style="list-style-type: none"> • references to any strategies, plans and programs approved under this approval; and • a description of and clear plan depicting all environmental monitoring to be carried out under this approval; <p>(f) describe how the various incident and approval reporting requirements of the project would be integrated into a single reporting system; and</p>	Compliant	<p>Viewed letter from the Secretary dated 8/1/19 that approved the EMS (Jan 2019) (Appendix A).</p> <p>b) Viewed Section 1 of the 2019 EMS which outlines the environmental Strategy.</p> <p>c) Viewed Section 2 of the 2019 EMS provides the statutory approvals.</p> <p>d) As per:</p> <ul style="list-style-type: none"> • Sections 6 of the EMS provides information on HVO's Community and Stakeholder Engagement Policy and how to keep stakeholders informed; • Section 7 of the EMS provides details on how to receive, handle, respond to, and record community complaints. • Section 8 of the EMS also provides information on how to resolve any disputes that may arise. • Section 11 of the EMS provides details on responses to any non-compliances; and • Section 11.1 of the EMS informs on how to respond to emergencies. <p>e) As per:</p> <ul style="list-style-type: none"> • Copies of the required strategies, plans and programs are available on company website (Sighted 18/11/19) as listed in Section 10 of the EMS. • Appendix A of the approved EMS contains a clear plan depicting all the monitoring sites including: <ul style="list-style-type: none"> ○ Air quality; ○ Blasting; ○ Groundwater; ○ Meteorological; ○ Noise; and ○ Surface water. <p>f) Section 12 provides reporting requirements for HVO</p> <p>g) Viewed Section 3 of the 2019 EMS identifies role, responsibility, authority and accountability of all key personnel for HVO.</p> <p>Recommend plan be updated for new ownership structure, titles and EMS structure in 2020.</p>

Cond	06_0261 Condition	Status	Evidence
	<p>(g) describe the role, responsibility, authority and accountability of all the key personnel involved in the environmental management of the project.</p> <p><i>Note: The requirements for the Environmental Management Strategy may, with the Secretary's approval, be satisfied as a component of CNA's Hunter regional environmental management strategy.</i></p>		
Management Plan Requirements			
5.1A	<p>The Proponent must ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:</p> <p>(a) a summary of relevant background or baseline data;</p> <p>(b) a description of:</p> <ul style="list-style-type: none"> • the relevant statutory requirements (including any relevant approval, licence or lease conditions); • any relevant limits or performance measures/criteria; and • the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures; <p>(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;</p> <p>(d) a program to monitor and report on the:</p> <ul style="list-style-type: none"> • impacts and environmental performance of the project; and • effectiveness of any management measures (see paragraph (c) above); <p>(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing</p>	Not Compliant	<p>The following management plans were reviewed by technical specialists and deemed compliant with this condition:</p> <ul style="list-style-type: none"> • Air Quality and Greenhouse Gas Management Plan (refer to discussion in Sch 3 Cond 23); • Noise Management Plan (refer to discussion in Sch 3 Cond 6); • Blasting Management Plan (refer to discussion in Sch 3 Cond 18); • Water Management Plan (refer to discussion in Sch 3 Cond 27); • Rehabilitation Management Plan (refer to discussion in Sch 3 Cond 36); • River Red Gum Rehabilitation & Restoration Strategy (refer to discussion in Sch 3 Cond 30); <p>The remaining HVO South Management Plans have been reviewed in detail below: <u>Biodiversity Offset Strategy (October 2017):</u> Refer to further discussion in Sch 3 Cond 29.</p> <p>a) Section 1.1 provides a background overview;</p> <p>b) Table 1.1 provides an overview of the relevant compliance requirements.</p> <p>c) Table 1.1 provides description of where each compliance requirement is addressed in this MP;</p> <p>d) Chapter 6 provides an overview of a schedule and to monitor the effectiveness of management measures;</p> <p>e) Section 6.4 provides management measures to manage any impacts to</p>

Cond	06_0261 Condition	Status	Evidence
	<p>impacts reduce to levels below relevant impact assessment criteria as quickly as possible;</p> <p>(f) a program to investigate and implement ways to improve the environmental performance of the project over time;</p> <p>(g) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> • incidents; • complaints; • non-compliances with statutory requirements; and • exceedances of the impact assessment criteria and/or performance criteria; <p>(h) a protocol for periodic review of the plan; and</p> <p>(i) a document control table that includes version numbers, dates when the management plan was prepared and reviewed, names and positions of the person/s who prepared and reviewed the management plan, a description of any revisions made and the date of the Secretary's approval.</p> <p><i>Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i></p>		<p>the relevant areas.</p> <p>f) Table 6.2 provides a summary of management measures and performance criteria to measure effectiveness over time;</p> <p>g) No information on protocol for managing and reporting of incidents, complaints or non-compliances.</p> <p>h) No protocol included for periodic review of the plan;</p> <p>i) Document control table available at the front of the document however does not include the names or positions of the person/s who prepared and reviewed the plan.</p> <p><u>Biodiversity Management Plan (August 2018):</u> Refer to further discussion in Sch 3 Cond 33A.</p> <p>a) Chapter 2 provides an overview of the current biodiversity values of the area;</p> <p>b) Section 1.3 provides an overview of the relevant compliance requirements.</p> <p>c) Table 1.1 provides description of how HVO will achieve compliance with relevant requirements;</p> <p>d) Chapter 5 provides a summary of the GDE and riparian vegetation monitoring and Chapter 6 provides the required monitoring is detailed in the relevant management plans as described in the BMP;</p> <p>e) Section 4 provides a mitigation and management section to manage any impacts;</p> <p>f) Section 6 provides information on overarching monitoring proposed to measure effectiveness of management measures;</p> <p>g) No information on protocol for managing and reporting of incidents, complaints or non-compliances. However, the approval letter from DPIE dated 2/8/18 states the plan meets the requirements of this Project approval.</p> <p>h) Section 1.3.2 states this plan will be reviewed every three years from its approval.</p> <p>i) No document control table. However, the approval letter from DPIE</p>

Cond	06_0261 Condition	Status	Evidence
			<p>dated 2/8/18 states the plan meets the requirements of this Project approval.</p> <p><u>Aboriginal Cultural Heritage Management Plan (May 2009):</u> Refer to further discussion in Sch 3 Cond 40.</p> <p>a) The 'Predicates' section provides a summary of previous investigations and consultation to date;</p> <p>b) Provision 30 provides the statutory permits and consents required for this plan;</p> <p>c) Provision 32 refers to the terms of reference (scope of works) for this plan;</p> <p>d) Provision 25 provides details on ACHMP compliance inspections to monitor the condition and management of sites;</p> <p>e) Provision 28 provides information on procedural breaches and urgent relief;</p> <p>f) Provision 25 provides requirements of annual compliance audits which provide recommendations to improve performance.</p> <p>g) Provision 4.7 provides information on incident reporting. No information regarding complaint management.</p> <p>h) Provision 29 states the MP will be reviewed every 5 years;</p> <p>i) Provision 5 contains a document control table.</p> <p><u>HVGC Amenity Management Plan (Oct 2012):</u> Refer to further discussion in Sch 3 Cond 49.</p> <p>a) Background data is not relevant to this MP</p> <p>b) Section 1.2 provides a description of the relevant statutory requirements</p> <p>c) Section 5 provides an overview of the measures to be implemented during the operations to ensure compliance.</p> <p>d) Section 5 provides a monitoring and management program to ensure compliance.</p> <p>e) Section 6 provides information on the process if unpredicted impacts occur</p>

Cond	06_0261 Condition	Status	Evidence
			<p>f) No information provided to investigate and implement ways to improve the environmental performance of the project over time.</p> <p>g) Section 5 & 7 provides procedures for managing incidents and complaints</p> <p>h) Section 7 states any further reviews of this plan will be at the direction of the proponent, in consultation with the HVGC.</p> <p>i) No document control table <u>Bushfire Management Plan (Oct 2017):</u> Refer to further discussion in Sch 3 Cond 60.</p> <p>a) No background data is required</p> <p>b) Section 1.2, 1.3 provide details on relevant statutory requirements</p> <p>c) Section 6 provides an implementation plan providing actions to comply with requirements</p> <p>d) Section 4 provides a summary of reporting requirements</p> <p>e) Section 3.2 provides summary of risk management and procedures if these risks occurred.</p> <p>f) Section 6 provides an implementation plan providing way to improve performance</p> <p>g) Section 3.2.3 provides the protocol for managing an emergency.</p> <p>h) Section 5 provides protocol on the document review.</p> <p>i) Review History and control table</p> <p>Recommend at the next required revision to relevant management plans (none urgent) ensure all items within Sch 5 Cond 1a are addressed.</p>
Combining Strategies, Plans or Programs			
5.1B	With the agreement of the Secretary, the Proponent may combine any strategy, plan, program or Annual Review required by this approval with any similar strategy, plan, program or Annual Review required for HVO North and Warkworth/Mt Thorley mines or any other adjoining operation in common ownership or under common management.	Compliant	<p>HVO's currently working under the following approved management plans for both HVO North and HVO South sites:</p> <ul style="list-style-type: none"> • Blast Management Plan (April 2019); • Water Management Plan (Oct 2018) • Noise Management Plan (Feb 2019) • Air Quality and Greenhouse Gas Management Plan (Sep 2019) • Pollution Incident Response Management Plan (Aug 2019)

Cond	06_0261 Condition	Status	Evidence
			<ul style="list-style-type: none"> • Environmental Management Strategy (Jan 2019) • River Red Gum Rehabilitation Restoration Strategy (Mar 2010) • Vegetation Clearance Plan (Oct 2016) HVO currently has a combined Goulburn River Biodiversity Area Management Plan to address HVO's offset requirements with Warkworth Mine.
Updating & Staging Strategies, Plans or Programs			
5.1C	To ensure that strategies, plans or programs required under this approval and which have been approved by the Secretary are updated on a regular basis, and that they incorporate any appropriate additional measures or amendments to improve the environmental performance of the project, the Proponent may at any time submit revised strategies, plans or programs for the approval of the Secretary. With the agreement of the Secretary, the Proponent may also submit any strategy, plan or program required by this approval on a staged basis. The Secretary may approve a revised strategy, plan or program required under this approval, or the staged submission of any of these documents, at any time. With the agreement of the Secretary, the Proponent may prepare the revised or staged strategy, plan or program without undertaking consultation with all parties nominated under the applicable condition in this approval, including waiving the requirements in condition 15 of Schedule 2. While any strategy, plan or program may be submitted on a staged basis, the Proponent will need to ensure that the operations associated with the project are covered by suitable strategies, plans or programs at all times. If the submission of any strategy, plan or program is to be staged; then the relevant strategy, plan or program must clearly describe the specific stage/s of the project to which the strategy, plan or program applies; the relationship of this stage/s to any future	Not Triggered	Not occurred during the audit period (per comms. AS).

Cond	06_0261 Condition	Status	Evidence
	stages; and the trigger for updating the strategy, plan or program.		
Application of Existing Strategies, Plans or Programs			
5.1D	The Proponent must continue to apply existing management strategies, plans or monitoring programs approved prior to the approval of Modification 5, until the approval of a similar plan, strategy or program following the approval of Modification 5.	Not Triggered	As per Sch 5 Cond 1C
REPORTING			
Incident Reporting			
5.2	As soon as practicable after the Proponent becomes aware of any incident associated with the project, the Proponent must notify the Secretary and any other relevant agencies of the incident. Within 7 days of becoming aware of the incident, the Proponent must provide the Secretary and any relevant agencies with a detailed report on the incident.	Compliant	<p>2019</p> <p>Viewed email dated 16/1/19 regarding data omission for the following sites GW-100, GW101 and D010(GM)</p> <p>Viewed DPIE report 29/4/19 to report the HVGC mis capture of the HVGC sampler due to a glider knocking it over. The 14/5/19 DPIE requested detailed circumstances. HVO applied reflective tape to the sampler. No further correspondence with DPIE on this issue (per comms. DB).</p> <p>18/3/19 sediment laden water discharged into Farrells Creek which triggered the PIRMP. The Resources Regulator are still continuing investigations, DPIE have not taken any further action. HVO immediately completed works to block of the slope and rehabilitate the area.</p> <p>Two overtopping sediment control dams overflowed into Farrells Creek due to a rainfall event on 30/3/19. Viewed incident report sent to DPIE on 5/4/19. Which triggered the PIRMP. EPA are taking no action, DPIE issued a warning letter.</p> <p>19/9/19 warning letter from DPIE for blast over pressure exceedance. HVO have since installed a blast monitor approx. 50m away from other monitor and complete a review by 31 October 2019 to DPIE. Viewed report to DPIE dated 31/10/19. No response to date.</p> <p>2018</p> <p>Blasting – A blast fired on the 17/1/18 exceeded the overpressure criteria of 120dB. Reported to DPIE and EPA. EPA issues HVO with an infringement Notice of \$15,000. Corrective actions included using a</p>

Cond	06_0261 Condition	Status	Evidence
			<p>balloon to see wind direction before shots fired, review permissions page and adjust firing permission towards Jerry's Plain and recalibrate air blast model factors to ensure a similar blast does not pass the overpressure test in the blast model.</p> <p>The use of a balloon was trialled but not successful. (per comms. AS) Viewed email dated 23/2/18 which confirmed the firing permissions were reviewed.</p> <p>Viewed email dated 7/11/18 confirming recalibrated model. No further correspondence received to date.</p> <p>Blasting – Knoodlers Lane blast monitor failed to capture blast monitoring results for two blasts initiated in the Cheshunt Pit. The mis capture was reported to DPIE with an investigation indicating the malfunction of the unit was suspected to have been caused by water ingress or lightning/power surges over the week preceding the blast. A second monitor closer to the mine recorded blasting results below criteria would indicate the Knodlers land blast monitor would not have recorded an exceedance. No failures since this time (per comms AS).</p> <p>Water - 5/10/18 incident of 75ml of water flowing offsite into Farrells Creek. Viewed report 11/10/18 pertaining incident information with no response from regulators.</p> <p>Rehabilitation - Incident 19/6/18 which was notified DPIE over the 242m² of vegetation that was cleared on mine owned land by Telstra workers. No comments from regulators.</p> <p>Overburden height exceedance – Refer to Sch 3 Cond 48.</p> <p><u>2017</u> Air - Refer to Sch 3 Cond 19.</p>
Regular Reporting			
5.3	The Proponent must provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or	Compliant	Viewed website on 18/11/19 - Monitoring Data provided on the Company's website (updated monthly) and summarises monitoring results for air quality, surface water, groundwater, noise and blasting. Copies of each Annual Review are also provided as per Sch 5 Cond 9.

Cond	06_0261 Condition	Status	Evidence
programs approved under the conditions of this approval			
Annual Review			
5.4	<p>By the end of March each year, the Proponent must review the environmental performance of the project to the satisfaction of the Secretary. This review must:</p> <p>(a) describe the development that was carried out in the previous calendar year, and the development that is proposed to be carried out over the next year;</p> <p>(b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against:</p> <ul style="list-style-type: none"> • the relevant statutory requirements, limits or performance measures/criteria; • the requirements of any plan or program required under this approval; • the monitoring results of previous years; and • the relevant predictions in the documents listed in condition 2 of Schedule 2; <p>(c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;</p> <p>(d) identify any trends in the monitoring data over the life of the project;</p> <p>(e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and</p> <p>(f) describe what measures will be implemented over the next year to improve the environmental performance of the project; and</p> <p>(g) evaluate and report on the effectiveness of environmental</p>	Compliant	<p>Viewed 2016 AR dated 27/3/17 and 2017 AR dated 27/3/18. 2018 28/3/19.</p> <p>Viewed Secretary approval of the 2016, 2017 and 2018 AR. Viewed letters dated 2017-12/12/18 and 2018- 16/8/19.</p> <p>a) Viewed 2016/2017/2018 AR Section 4 and 8 which describes the development that was carried out in the past calendar year and what is proposed to be carried out over the current calendar year.</p> <p>b) Refer to previous conditions where these are mentioned Viewed complaints register for the audit period – 71 complaints were received from 2017 to Oct 2019. (2019 YTD– 8, 2018 – 26 and 2017 – 37 complaints). Majority of the complaints were related to noise (26), blasting (27) and air quality (13). Review showed no apparent trends relating to monitoring results for the site.</p> <p>c) 2016/2017/2018 AR Section 11 identifies non-compliance over past calendar year, and describes action to be taken to ensure compliance.</p> <p>d) 2016/2017/2018 AR relevant sections illustrate trends in monitoring data over the life of the project and include:</p> <ul style="list-style-type: none"> • Blasting; • Air Quality; and • Surface and Groundwater. <p>e) Comparison of actual Project impacts to predictions are found within the Annual Reviews broken up into individual environmental impacts (air quality, noise, blasting, surface water, groundwater) and rehabilitation objectives are compared with the MOP predictions.</p> <p>f) Section 12 provides an overview of activities to be completed during the following year relating to environmental performance.</p> <p>g) Section 8.5 of the 2018 AR provides a summary of current rehabilitation activities and its effectiveness to achieve HVO's requirement.</p>

Cond	06_0261 Condition	Status	Evidence
	management of the project.		
Revision of Strategies, Plans and Programs			
5.4A	<p>Within 3 months of the submission of an:</p> <p>(a) incident report under condition 2 above;</p> <p>(b) annual review under condition 4 above;</p> <p>(c) audit under condition 5 below; or</p> <p>(d) any modification to the conditions of this approval, the Proponent must review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Secretary.</p> <p>Within 6 weeks of conducting any such review, the Proponent must advise the Secretary of the outcomes of the review, and provide any documents that have been revised to the Secretary for review and approval.</p> <p><i>Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.</i></p>	Not Compliant	<p>Viewed CMO database screenshot which provides a recurring CMO action to check and trigger a management review on a monthly basis against this condition since 2019. All examples viewed showed completed.</p> <p>No evidence available to confirm reviews conducted on each occasion during November 2016 to June 2019. Most management plans were revised in the audit period however, as described above.</p>
INDEPENDENT ENVIRONMENTAL AUDIT			
5.5	<p>By 31 March 2010, and every 3 years thereafter, unless the Secretary directs otherwise, the Proponent must commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:</p> <p>(a) be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been endorsed by the Secretary;</p> <p>(b) include consultation with the relevant agencies;</p> <p>(c) assess the environmental performance of the project and whether it is complying with the relevant requirements in</p>	Compliant	<p>The current IEA satisfies these requirements.</p> <p>The audit period is from 1 November 2016 to 5 December 2019.</p> <p>Viewed Lead Auditor (DM) Exemplar Global Certification which satisfies requirements for Environmental Management Systems Auditor.</p> <p>Viewed letter from DPIE re Endorsement of the Independent Environmental Auditor dated 27 August 2019.</p> <p>Consultation with relevant agencies shown in main document.</p> <p>Recommend at next modification note updated as per contemporary</p>

Cond	06_0261 Condition	Status	Evidence
	<p>this approval and any relevant mining lease and EPL (including any strategy, plan or program required under these approvals);</p> <p>(d) review the adequacy of strategies, plans and/or programs required under these approvals;</p> <p>(e) recommend appropriate measures or actions to improve the environmental performance of the project, and/or any strategy, plan or program required under these approvals;</p> <p>and</p> <p>(f) be conducted and reported to the satisfaction of the Secretary.</p> <p><i>Note: This audit team should be led by a suitably qualified auditor, and include experts in the field of noise and air quality, surface water and groundwater and mine rehabilitation.</i></p>		consents to allow DPIE flexibility in experts required going forward, if amenable to DPIE.
5.6	<p>Within 12 weeks of commencing each audit, or as otherwise agreed by the Secretary, the Proponent must submit a copy of the audit report to the Secretary with a response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations. The Proponent must implement these recommendations.</p>	Compliant	<p>Proponent to undertake post-audit for this IEA.</p> <p>Viewed DPIE 20/2/17 letter stating the 2016 IEA was submitted on the 30/1/17 in accordance with this condition.</p>
5.7	<i>Deleted</i>	N/A	N/A
COMMUNITY CONSULTATIVE COMMITTEE			
5.8	<p>The Proponent must operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Secretary in general accordance with the Department's Community Consultative Committee Guidelines: State Significant Projects (2016, or its latest version).</p>	Compliant	<p>Minutes for the HVO Community Consultative Committee are published on the HVO Coal website - these minutes show that the CCC has met quarterly for the full audit period.</p> <p>The CCC is conducted in general accordance with the Community Consultative Committee Guidelines (DPIE, 2016).</p> <p>The CCC has an Independent Chair (Dr Gellatly), a member from Singleton Council (Cr Jenkins), local community and HVO representatives.</p>

Cond	06_0261 Condition	Status	Evidence
	<p>Notes:</p> <ul style="list-style-type: none"> The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval. In accordance with the Guideline, the Committee should comprise an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the general community in the area of the development. With the approval of the Secretary, this CCC may be combined with the CCC for HVO North. 		
ACCESS TO INFORMATION			
5.9	<p>The Proponent must, for the life of the project:</p> <p>(a) make the following information publicly available on its website:</p> <ul style="list-style-type: none"> the documents listed in condition 2 of Schedule 2; current statutory approvals for the project; approved strategies, plans or programs required under the conditions of this approval; a comprehensive summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval; a summary of the current stage and progress of the project; contact details to enquire about the project or to make a complaint; a complaints register, which is to be updated on a monthly basis; minutes of CCC meetings; 	Compliant	<p>Website checked 2/12/19</p> <p>A copy of all EA's is available on the website.</p> <p>A copy of the current consolidated Project Approval, EPL on the Company's website.</p> <p>Copies of the approved strategies, plans and programs required under this condition is provided on the Company's website.</p> <p>A monthly document summarising the monitoring results air quality, surface water, groundwater and noise is provided on the Company's website.</p> <p>Complaints register available.</p> <p>Independent Audit from 2016 is available.</p> <p>Copies of each Annual Review from 2012 are provided. Missing 2018 AR on website due to waiting on acceptance from the Resources Regulator (DB per comms) however subsequently received and now published on HVO website.</p> <p>CCC Minutes provided.</p> <p>Verified from review of available documents on HVO's website and are reported in the AR, which is approved by the Secretary.</p>

Cond	06_0261 Condition	Status	Evidence																								
	<ul style="list-style-type: none"> the last five annual reviews; any independent environmental audit, and the Proponent's response to the recommendations in any audit; any other matter required by the Secretary; and <p>(b) keep this information up to date, to the satisfaction of the Secretary.</p>																										
APPENDIX 1: SCHEDULE OF LAND																											
APPENDIX 2: PROJECT LAYOUT																											
APPENDIX 3: (DELETED)																											
APPENDIX 4: LAND/ RECEIVER LOCATIONS																											
APPENDIX 4A: NOISE COMPLIANCE ASSESSMENT																											
Applicable Meteorological Conditions																											
Ap 4A.1	<p>The noise criteria in Table 2 are to apply under all meteorological conditions except the following:</p> <p>(a) where 3°C/100 metres (m) lapse rates have been assessed, then:</p> <ul style="list-style-type: none"> wind speeds greater than 3 metres/second (m/s) measured at 10 m above ground level; temperature inversion conditions between 1.5°C and 3°C/100 m and wind speeds greater than 2 m/s measured at 10 m above ground level; or temperature inversion conditions greater than 3°C/100 m. <p>(b) where Pasquill Stability Classes have been assessed, then:</p> <ul style="list-style-type: none"> wind speeds greater than 3 m/s at 10 m above ground level; stability category F temperature inversion conditions and wind speeds greater than 2 m/s at 10 m above ground level; or 	Compliant	<p>Annual Reviews and Monthly Noise Monitoring Reports indicate noise monitoring results are compared to relevant criteria according to this condition.</p> <p>Bridges Acoustics reviewed the various spreadsheets containing noise monitoring results in relation to invalid weather conditions as shown below. The primary cause of invalid weather conditions is wind speed over 3 m/s. HVO South has noticeably higher levels of invalid data which could be from consultants generally starting monitoring with HVO South progressing to HVO North later in the night which allow winds speeds to reduce.</p> <p>NORTH</p> <table border="1"> <thead> <tr> <th>YEAR</th> <th>2017</th> <th>2018</th> <th>2019 (Jan-Sep)</th> </tr> </thead> <tbody> <tr> <td>% VALID</td> <td>70</td> <td>81</td> <td>42</td> </tr> <tr> <td>% INVALID</td> <td>30</td> <td>19</td> <td>58</td> </tr> </tbody> </table> <p>SOUTH</p> <table border="1"> <thead> <tr> <th>YEAR</th> <th>2017</th> <th>2018</th> <th>2019 (Jan-Sep)</th> </tr> </thead> <tbody> <tr> <td>% VALID</td> <td>35</td> <td>44</td> <td>22</td> </tr> <tr> <td>% INVALID</td> <td>65</td> <td>56</td> <td>78</td> </tr> </tbody> </table>	YEAR	2017	2018	2019 (Jan-Sep)	% VALID	70	81	42	% INVALID	30	19	58	YEAR	2017	2018	2019 (Jan-Sep)	% VALID	35	44	22	% INVALID	65	56	78
YEAR	2017	2018	2019 (Jan-Sep)																								
% VALID	70	81	42																								
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% INVALID	65	56	78																								

Cond	06_0261 Condition	Status	Evidence
	<ul style="list-style-type: none"> stability category G temperature inversion conditions. 		<p>Recommendation: During the audit period, a high percentage of results were collected under invalid weather conditions. Independent consultants completing the monthly noise compliance surveys should review predicted weather conditions before each noise survey to maximise noise data collected under the weather conditions specified in this condition, or a review of this process should be undertaken to ensure effectiveness. Recommend additional monitoring should be considered where invalid results are greater than 50% of recorded results.</p>
Determination of Meteorological Conditions			
Ap 4A.2	Except for wind speed at microphone height, the data to be used for determining meteorological conditions shall be that recorded by the meteorological station required under condition 24 of schedule 3.	Compliant	HVO (Dominic Brown) confirmed weather data from the HVO weather station is provided to independent consultants to determine if weather conditions are valid and for inclusion in monitoring reports.
Compliance Monitoring			
Ap 4A.3	Attended monitoring is to be used to evaluate compliance with the relevant conditions of this approval. <i>Note: The Secretary may direct that the frequency of attended monitoring increase or decrease at any time during the life of the project.</i>	Compliant	Annual Reviews and Monthly Monitoring Reports indicate attended noise surveys are used to determine compliance with noise conditions.
Ap 4A.4	Unless otherwise agreed by the Secretary, this monitoring must be carried out in accordance with the relevant requirements for reviewing performance set out in the <i>NSW Industrial Noise Policy</i> (2000, or its latest version) in particular the requirements relating to <ul style="list-style-type: none"> (a) monitoring locations for the collection of representative noise data; (b) meteorological conditions during which collection of noise data is not appropriate; (c) equipment used to collect noise data, and conformity with Australian Standards relevant to such equipment; 	Not Compliant	<p>(a): Noise monitoring locations are shown on NMP Appendix B Figure 1, while receptor locations are shown on Appendix B (Figure 2). A comparison of these two figures indicates:</p> <ul style="list-style-type: none"> - The Jerrys Plains East attended location is representative of receptors in this group. - The Kilburnie South attended location is representative of receptors in this group. - The Warkworth attended location is representative of receptors in this group. - The HVGC attended location is acceptable. - The Maison Dieu attended location is acceptable.

Cond	06_0261 Condition	Status	Evidence
	<p>(d) modifications to noise data collected, including for the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration; and</p> <p>(e) the use of an appropriate modifying factor for low frequency noise to be applied during compliance testing at any individual residence if low frequency noise is present (in accordance with the <i>NSW Noise Policy for Industry</i> (2017, or its latest version) Fact Sheet C) and before comparison with the specified noise levels in this approval.</p>		<p>- The Shearers Lane attended location is representative of closest receptors in this group.</p> <p>- The Knodlers Lane attended location is representative of closest receptors in this group.</p> <p>- The Long Point attended location adequately represents receptors in this group.</p> <p>(b): Reported noise monitoring data, and associated weather data for each noise measurement period, indicate compliance with this condition when the wind speed at the microphone location (not the wind speed at 10 m above the ground reported by the weather station) is considered.</p> <p>(c): Sample independent consultant reports were sighted to confirm compliance.</p> <p>(d): Reported noise survey results in Annual Reviews and Monthly Monitoring Reports are corrected for non-mine sources and low frequency noise as required.</p> <p>The NMP and noise monitoring reports do not assess and correct for (or do not report) tonal noise as required by the NSW Industrial Noise Policy and later Noise Policy for Industry. It is recommended that tonal noise is included in the noise monitoring reports and the NMP on its next revision.</p> <p>(e): Reported noise survey results in Annual Reviews and Monthly Monitoring Reports are corrected for low frequency noise as required.</p>
APPENDIX 5: BIODIVERSITY OFFSET STRATEGY			
APPENDIX 6: CONCEPTUAL REHABILITATION PLAN			
APPENDIX 7: TRANSPORT OPTIONS			
APPENDIX 8: THREATENED SPECIES AND EECs AT HVO SOUTH			
APPENDIX 9: (DELETED)			
APPENDIX 10: HVO SOUTH LANDS DEDICATED AS OFFSETS FOR WARKWORTH MINE			

Table B
Hunter Valley Operations South
CNA Statement of Commitments (South Operations) PA 06_0261

Ref	Assessment Requirement	2019 Status	2019 Evidence
1	<p>CNA will:</p> <ul style="list-style-type: none"> • carry out the proposal generally in accordance with the systems, plans and mitigation measures identified throughout this Environmental Assessment Report; • bring any matters that arise and require further assessment by the Director General to the Director General's attention and will comply with all requirements received; and • obtain and maintain all permits, licenses and approvals required throughout the life of the project that are not incorporated into the Part 3A Project Approval. This Statement of Commitments does not replace any obligations CNA has under these statutory requirements. • All works will be undertaken in accordance with the relevant Australian Standards where these standards do not conflict with specific legislative or safety requirements. Standards may include but not be restricted to the latest versions of: <ul style="list-style-type: none"> ○ AS 2601-2001: <i>The Demolition of Structures; and</i> ○ AS1940 - <i>The Storage and Handling of Flammable and Combustible Liquids.</i> 	Noted	<p>As per this IEA</p> <p>Recommended at the next modifications these SOC's are revised to remove any duplication with conditions of consent.</p>
2	<p>Management of activities occurring at HVO is undertaken with reference to the corresponding management plan that details the key objectives and control measures. The management plans outline key environmental issues, performance criteria, recommended control measures, monitoring, inspection and incident management requirements, performance reporting</p>	Noted	<p>HVO have adopted Glencore template.</p> <p>See comments on EMS at Sch 5 Cond 1.</p>

Ref	Assessment Requirement	2019 Status	2019 Evidence
	<p>and key related policies and procedures.</p> <p>The relevant EMS procedures describe the implementation of these recommended controls. Monitoring is undertaken in accordance with the approved monitoring programme to determine the effectiveness of the control measures and promotes a continuous improvement cycle. The CNA EMS will continue to be implemented across HVO and the relevant plans, procedures and monitoring programmes will be reviewed and modified to reflect the changes to HVO South resulting from the proposal.</p>		
3	<p>The recommended management measures from each of the technical reports include a number of control measures to minimise the potential impacts resulting from the proposal. These measures have been considered in the context of the existing HVO activities and the CNA EMS. Many of these measures are already in place as part of existing controls for the HVO South activities, and will continue to be implemented across HVO South to minimise the potential impacts resulting from the proposal.</p> <p>This Statement of Commitments details those controls that are considered specific to the proposal.</p>	Noted	Noted
4	<p>The CNA EMS has been developed and implemented in accordance with ISO14001. This EMS will continue to be applied to the activities undertaken as part of the HVO South Coal Project.</p>	Compliant	<p>Refer to PA 06_0261 Sch 5 Cond 1</p> <p>Section 1.4 of the EMS states the EMS has been developed in accordance with ISO 14001.</p>
Management Measures			
Community Consultations			
5	<p>The existing consultation programmes will continue to be undertaken to ensure any specific outcomes from the environmental assessment are included into the relevant</p>	Compliant	Refer to PA 06_0261 Sch 5 Cond 8

Ref	Assessment Requirement	2019 Status	2019 Evidence
	<p>programmes as required.</p> <p>The community consultation specific to the proposal will continue throughout the project, from submission through to government decision and implementation of commitments. Ongoing communication techniques utilised by CNA (<i>Table 6.1</i>) will be implemented as appropriate.</p>		
Noise			
6	<p>In addition to the mitigation measures undertaken at HVO for noise, the following controls specific to the proposal will be implemented:</p> <ul style="list-style-type: none"> • equipment operation within South Lemington Pit 1 and associated truck movements will cease during night time operations if monitoring identifies unacceptable noise impacts will result from south westerly winds (occurring at or above 2.1 m/s). At lower wind speeds, real-time noise and/or weather monitoring will be used to guide modifications to operations as required. • Noise limits that will apply to the proposal are detailed in Table 22.1. 	Compliant	<p>NMP Sections 6.1.1 to 6.1.3 describe procedures to identify noisy equipment and to preferentially deploy to or remove equipment from noise risk areas. Annual Reviews (2016-2018) Section 6.2.3 describes active noise monitoring and management procedures including equipment downtime to maintain compliance with noise criteria.</p>
Blast and Vibration			
7	<p>In addition to the mitigation measures undertaken at HVO for blast and vibration management, blasts will be designed to minimise impacts on neighbouring mine ventilation structures and minimise the potential for fracture development along pit walls to assist with pit wall stability:</p> <ul style="list-style-type: none"> • blast vibration will be managed through design and modelling • bench heights will be managed to not significantly exceed 15 m • no throw blasts will take place adjacent to final walls; 	Compliant	<p>BMP Section 1.3 states blast design is a key element of the blast impact mitigation strategy.</p> <p>BMP Sections 4.2 and 6.2 include a commitment to design blasts to minimise impacts and meet relevant criteria at sensitive locations.</p> <p>Blast monitoring results indicate blast mitigation strategies are successful for the vast majority of blast events and are therefore acceptable.</p>

Ref	Assessment Requirement	2019 Status	2019 Evidence
	<ul style="list-style-type: none"> • high density explosives will be toe loaded; • blast monitoring and post blast analysis will be undertaken where required; • presplit blasting will be implemented on final walls where this indicates improved wall conditions; and • visual monitoring by way of regular highwall and pit inspections will be undertaken. 		
Air Quality			
8	<p>In addition to the mitigation measures undertaken at HVO for air quality management, efficient mine planning and operations will ensure:</p> <ul style="list-style-type: none"> • the mine plan is regularly reviewed with a view to controlling dust emissions and keeping emissions to the lowest levels practicable; • exposed areas are kept to the minimum practicable; and • haul roads are kept to the shortest routes practicable and material handling is kept to the minimum levels practicable. 	Compliant	<p>MOP reviewed annually. Implementation of PRP through EPL 640 AQHGMP describes land rehabilitation program, which is reported through the AR 2016, 2017, 2018.</p>
Groundwater			
9	<p>In addition to the mitigation measures undertaken at HVO for groundwater management, the following controls specific to the proposal will be implemented: Groundwater Flow to and from Rivers: Development of protocols for monitoring and reporting of NOW stream gauge results to clearly record any reductions in flows that are attributed to mining. This will include monitoring Hunter River flows immediately up gradient and down gradient of the site. In addition, consideration will be given to tying in specific CNA water level recordings with current NOW gauging</p>	Compliant	<p><u>Groundwater Flow to and from Rivers:</u> Viewed Section 8 of the WMP which addresses this requirement. <u>Regional Groundwater Drawdown:</u> Viewed Table 1.2 of the WMP which confirms that these requirements have been addressed. <u>Alluvial Buffer Zone:</u> Viewed Table 1.2 of the WMP which confirms that the approved open cut pits are located at least 150 m from the Hunter River and the associated alluvium. <u>Deep Cheshunt Pit Final Void:</u></p>

Ref	Assessment Requirement	2019 Status	2019 Evidence
	<p>locations; monitoring of groundwater elevations within alluvium between the Hunter River and the Cheshunt Pit; and measured groundwater elevations and river flow will be assessed against predictions to determine whether application of additional management measures is required; and Offset seepage to pits in accordance with regulatory requirements.</p> <p>Regional Groundwater Drawdown: The HVO River Red Gum Rehabilitation and Restoration Strategy and CNA EMS procedure for Flora and Fauna will be updated to reflect changes resulting from the proposal. This will include monitoring the health of the River Red Gums located on the Hunter River and Wollombi Brook alluvium as identified in Chapter 11 (Figure 11.2). The monitoring programme will include details on frequency of monitoring, reporting and corrective actions; and</p> <p>Up to three monitoring wells will be installed in the proximity of the cluster of registered NOW bores located to the east of the LCPP (Figure 25 Annex J). Data will be used to compare actual versus predicted impacts. Deviations away from predicted impacts will be assessed, and if predictions are exceeded, management measures will be implemented.</p> <p>Alluvial Buffer Zone:</p> <ul style="list-style-type: none"> • a buffer zone of 100 m will be retained from the Cheshunt Pit highwall to the edge of alluvium of the Hunter River; • a buffer zone of 150 m will be retained from the South Lemington Pit 2 highwall to the edge of alluvium of the Wollombi Brook; • bores will be installed to further delineate the saturated 		<p>Not triggered as the Deep Chestnut Final void was not formed during the audit period.</p>

Ref	Assessment Requirement	2019 Status	2019 Evidence
	<p>zone between the Hunter River and the Cheshunt Pit before mining commences within this area; and</p> <ul style="list-style-type: none"> • the groundwater component of the HVO Water Management Manual will include procedures for monitoring potential impacts, including accurately measuring seepage to pits throughout mining and assessment of proximity to alluvials as mining approaches. <p>Deep Cheshunt Pit Final Void:</p> <ul style="list-style-type: none"> • The Deep Cheshunt Pit final void will be designed to intercept leachate from overburden emplacements and minimise discharge of saline groundwater. Deep Cheshunt Pit final void design will be reviewed at least three years prior to anticipated mine closure; • The Deep Cheshunt Pit Final Void Management Plan will include future use options including investigation of feasibility to use the Deep Cheshunt Pit final void as a water storage that could be used as a buffer in times of flood flows in the Hunter River and as a supplementary water supply at times of scarce water supply. This would include additional investigations to refine predictions of final void water chemistry; A post closure monitoring programme will be developed as part of the Deep Cheshunt Pit Final • Void Management Plan for water quality monitoring of the final void; and • The mine plan will be further reviewed with a view to minimise the area of the Deep Cheshunt Pit final void as much as practicable. 		
Surface Water			
10	In addition to the mitigation measures undertaken at HVO for surface water management, the following controls specific to the	Compliant	<p><u>Water Supply:</u> Viewed Section 5.6 and Table 5.2 of the WMP which states that HVO holds</p>

Ref	Assessment Requirement	2019 Status	2019 Evidence
	<p>proposal will be implemented.</p> <p><i>Water Supply:</i></p> <ul style="list-style-type: none"> • modify Water Access Licenses, review conditions and report on water use in the AEMR; • monitor and record abstraction quantities; and • increase pump capacity from Dam 20S (or alternative storage) to the LCPP and undertake minor improvements to the existing HVO South water system in conjunction with the design of the LCPP to minimise need to pump from Hunter <p><i>River Water Discharge:</i></p> <ul style="list-style-type: none"> • Review current discharge conditions in respect of the proposal and incorporate where applicable into the Water Management Manual. <p><i>Flood Mitigation:</i></p> <ul style="list-style-type: none"> • construct South Lemington Pit 2 Levee SLL2 as a permanent levee and ensure the outer face of the levee will withstand 100-year ARI flood flow velocities; and • assess Hobden Gully levee (CL1) prior to mine closure to determine if protection of the Deep Cheshunt Pit final void is required. <p><i>Erosion and Sediment Control:</i></p> <ul style="list-style-type: none"> • Erosion and sediment control structures will remain in place to divert water away from the Deep Cheshunt Pit final void unless required for use as flood flow storage. <p><i>Monitoring and Inspections:</i></p> <ul style="list-style-type: none"> • prior to LCPP and infrastructure construction works review the Surface Water Monitoring Programme, establish additional representative monitoring sites where required 		<p>16 WALs, including:</p> <ul style="list-style-type: none"> • Six water access licences (WALs) that permit groundwater extraction from the Hunter Unregulated and Alluvial Water Sources. • Four WALs that permit surface water extraction from the Hunter Regulated River Water Source. • Six WALs that permit the extraction of groundwater from the Permian coal measures via open cut pits and bores. <p>Viewed the 2018 AR Table 7 which lists 17 approved WALs and two additional WALs pending approval. HVO has also provided copies of 68 WALs as part of this IEA. It is recommended that future versions of the WMP include an up-to-date list of the WALs and that all WALs are made available via the website.</p> <p>Viewed water abstraction monitoring data from 2016 to 2019.</p> <p>Viewed Table 1.2 of the WMP which confirms that these requirements have been addressed.</p> <p><u>River Water Discharge:</u></p> <p>The WMP addresses the site discharge logic and conditions.</p> <p><u>Flood Mitigation:</u></p> <p>Viewed Section 7 of the WMP which confirms that the South Lemington Pit 2 Levee (SLL2) has been constructed in accordance with these requirements.</p> <p>Not triggered as the Deep Chestnut Final void was not formed during the audit period.</p> <p><u>Erosion and Sediment Control:</u></p> <p>Not triggered as the Deep Chestnut Final void was not formed during the audit period.</p> <p><u>Monitoring and Inspections:</u></p> <p>Viewed Appendix C of the WMP which provides a surface water monitoring program that adequately addresses these requirements.</p>

Ref	Assessment Requirement	2019 Status	2019 Evidence
	<p>and undertake monitoring; and</p> <ul style="list-style-type: none"> annual monitoring of water level and water quality in the Deep Cheshunt Pit final void after mining operations have ceased as part of the post closure monitoring programme. Monitoring will continue in accordance with regulatory requirements. 		Not triggered as the Deep Chestnut Final void was not formed during the audit period.
Ecology			
11	<p>In addition to the mitigation measures undertaken at HVO for management of flora and fauna, the following controls specific to the proposal will be implemented:</p> <p>the River Red Gum Rehabilitation and Restoration Strategy prepared by CNA will be updated to include the stands along the Hunter River and Wollombi Brook, will include collection and storage of seed from existing stands, and will ensure the health of these River Red Gums is periodically monitored;</p> <p>Studies will be undertaken to investigate the preferred water source of River Red Gums and develop appropriate management measures;</p> <p>Rehabilitation planning will identify opportunities to create similar ecological characteristics (such as habitat types) of proposed extension areas;</p> <p>The Warkworth and Wambo Green Offset areas and the Hunter Valley Synoptic Plan will be considered with rehabilitation planning to enhance linkage where practical.</p>	Not Compliant	<p>Refer to Sch 3 Cond 30.</p> <p>Seeds collected from Billabong in 2007 by HLM however no seeds collected since (per comms DB).</p> <p>No evidence exists of whether collection and storage of River Red Gum seed from existing stands is occurring.</p> <p>Recommend collect seed from River Red Gum area or justify why not possible/required in revised BMP.</p>
Aboriginal Heritage			
12	<p>In addition to the mitigation measures undertaken at HVO for management of Aboriginal heritage, the following controls specific to the proposal will be implemented as agreed with the Aboriginal Working Group.</p> <p>Management Measures for ACHMP HVO South Stage 1</p>	Compliant	Refer to PA 06_0261 Sch 3 Cond 40

Ref	Assessment Requirement	2019 Status	2019 Evidence
	<p>include: All management measures will be undertaken in accordance with the Aboriginal Heritage Assessment as outlined in the ACHMP; If at a later date it is found necessary to undertake an action that would impact sites described within the Aboriginal cultural heritage assessment, additional and specific management recommendations may be implemented in consultation with the Working Group; Provision is to be made for the management of collected cultural heritage material; provision will be made in the ACHMP for the Working Group to undertake an independent compliance audit of the management programme on a six monthly basis. In the event that any non-compliant activities are identified at any time, an additional compliance audit may be undertaken as part of the investigation process; where any mitigation is required it will be undertaken by representatives of the Working Group and suitably qualified technical advisers; Implement a management programme providing for the controlled collection of the following sites where site avoidance is not possible. Until management measures (which may involve the collection of cultural material) have been implemented, mine-related impacts to the sites will be prevented:</p> <ul style="list-style-type: none"> - Riverview South West Mining Extension Area Sites 1-24 - South Lemington Pit 1 Mining Extension Area Sites 59-79 - Proposed rail spur and loop easement Sites 80-83 - LCPP Sites 101 and 105-106 <p>the alignment of the proposed rail spur and loop have been amended to avoid impacts to Sites 26-44, 47-58 and 107-109;</p>		

Ref	Assessment Requirement	2019 Status	2019 Evidence
	restricted access zones will be defined for Sites 26-44, 47-58, 84-100, 102-104 and 107-109. The boundaries (<i>Figure 12.3</i>) are indicative only; and land management activities on the Archerfield property will avoid any impacts to Site 25. Management measures to be implemented in accordance with the agreed ACHMP for HVO South Stage 2.		
Historic Heritage			
13	In addition to the mitigation measures undertaken at HVO for management of historic heritage, the following action specific to the proposal will be implemented: A targeted field assessment will be undertaken by an historic heritage professional where required to supplement existing information to report on the relative significance of the additional sites identified on CNA land including a derelict bridge structure over an unnamed ephemeral creek and the cockatoo fence and recommend additional management measures.	Not Triggered	Completed (Verified in 2010 IEA)
Visual			
14	In addition to the mitigation measures undertaken at HVO for management of visual amenity, the following action specific to the proposal will be implemented: <ul style="list-style-type: none"> • A review of the extension areas that adjoin Jerrys Plains Road and the proposed rail spur and • Loop easement will be undertaken prior to construction of the rail spur and loop, to determine if additional screening is required. 	Not Triggered	The proposed rail loop has not been progressed during the audit period (per comms AS).
Traffic and Transport			
15	In addition to the mitigation measures undertaken at HVO for management of traffic and transport, the following action specific to the proposal will be implemented: <ul style="list-style-type: none"> • ensure the relocation of Comleroi Road and construction 	Not Triggered	The proposed Comleroi Road and rail loop works have not been progressed during the audit period (per comms AS).

Ref	Assessment Requirement	2019 Status	2019 Evidence
	<p>of the rail loop are undertaken in accordance with the relevant regulatory requirements; and</p> <ul style="list-style-type: none"> Obtain the appropriate approvals, including those required for heavy equipment transfer; and Ensure relevant stakeholders are consulted as required. 		
Waste Management			
16	There are no suggested controls for waste management specific to the proposal. It is anticipated the mitigation measures currently implemented at HVO will be sufficient to manage the increase in waste resulting from the proposal.	Noted	Noted
Land Management			
17	In addition to the mitigation measures currently implemented the mine plan will be regularly reviewed with a view to keeping emissions to the lowest levels practicable. Haul roads will be kept to the shortest routes practicable and material rehandling will be kept to the minimum levels practicable. Most of these measures are routinely applied as part of the efficient design of the mine.	Compliant	Refer to PA 06_0261 Sch 3 Cond 22 & 53 Engineers ensure haul roads are chosen during the mine planning stages as most cost efficient. (per comms AS).
Energy Management Activities			
18	There are no suggested controls for land management that are specific to the proposal. The current mitigation measures implemented at HVO are anticipated to be sufficient to manage any potential impacts from the proposal on land use.	Noted	Noted
Mine Landscape Planning			
19	In addition to the mitigation measures undertaken at HVO for management of landscape planning, the following actions specific to the proposal will be implemented: Remnant vegetation located within the Project Application area and outside proposed disturbance areas will be protected and enhanced to improve the ecological value and biodiversity. In	Compliant	See response to PA 06_0261 Sch 3 Cond 33a <u>Veg Monitoring</u> Areas of remnant vegetation have been identified. Annual Weed surveys monitor vegetation areas within the Project Area however

Ref	Assessment Requirement	2019 Status	2019 Evidence
	<p>particular, the specific management practices will include:</p> <ul style="list-style-type: none"> • monitoring of remnant vegetation areas in accordance with existing procedures to provide evidence of success of management practices; • undertaking bushfire management, weed and pest control in accordance with recommended practices; • utilising local native species for seed stock where practical; • utilising existing farm dams and retention or establishment of native vegetation around dams to provide habitat; and • habitat creation and enhancement for common and threatened species. <p>A Final Void Management Plan will be prepared for the Deep Cheshunt Pit final void at least five years prior to completion of mining and will include:</p> <ul style="list-style-type: none"> • identification of possible beneficial uses for the void; • consideration of technologies which will assist to enhance the range of possible uses; • review of modelling and predictions of long term hydrological behaviour and water quality responses, including final void water quality and level; • long term integrity of void slopes; • waste characterisation and containment as pertains to runoff into final voids; • coal seam capping; and • long term management, monitoring and mitigation measures. 		<p>outside the current and proposed disturbance footprint. Viewed surveys for 2016, 2017, and 2018.</p> <p>Rehabilitation monitoring during the audit period was undertaken in 2016 and 2017 however did not include vegetation areas of this type. This is because these were the initial rehabilitation monitoring events and the scope was focussed on rehabilitation areas and analogue sites. None of the analogue sites are within the project boundary and hence do not meet the criteria. Monitoring reports are appended to the respective Annual Reviews.</p> <p><u>Log reuse</u></p> <p>The primary reuse of logs and large woody debris during the audit period has been in construction of habitat ponds, primarily in West Pit. Areas of timber dumpings have been established at Riverview. Stag trees have been installed on the Cheshunt RL155 dump. Each of these aspects were observed during the site inspection of rehab areas. Also observed during the site inspection were examples of stockpiled timber collected and stored for reuse (e.g. Riverview North, West North, West Wilton).</p> <p>The focus of reuse has been in North Consent areas as the developing rehab areas in this area of the mine area not planned to be re-disturbed by future operations. Log reuse remains an ongoing element of rehab operations across HVO (see Plate 17).</p> <p>Completion of mining is set to occur 24 March 2030 therefore a Final Void Management Plan must be prepared no later than 24/3/25.</p> <p>Works are related to the South Lemington Pit 2. As per Modification 5 Section 3.2.2 no mining in either South Lemington Pits until 2022 (Stage 2). These works have not been undertaken within audit period.</p>

Ref	Assessment Requirement	2019 Status	2019 Evidence
	<p>Mining in South Lemington Pits will be incorporated into a revised MOP for HVO South, which will supersede all previous MOPs for this area. The management commitments for South Lemington Pit 1 will include highwall stability monitoring, water storage management, minimisation of visual impacts and management of dust emissions and erosion.</p> <p>The process for designing the landforms across HVO and undertaking progressive rehabilitation with the aim of achieving a final landscape vision will be undertaken in accordance with the <i>HVO Conceptual Landscape and Rehabilitation Management Strategy</i>.</p>		

Table C
HVO North Development Consent 450-10-2003 Conditions

Blue type represents December 2009 mod
represents 31 October 2012 mod

Red type represents 3 February 2012 mod

LightBlue type represents 28 February 2018 mod

Green type represents 31 October 2012 mod

Purple type

Cond	Condition	Status	Evidence
SCHEDULE 2 – ADMINISTRATIVE CONDITIONS			
Obligation to Minimise Harm to the Environment			
2.1	The Applicant must implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the development.	Compliant	Known works and activities carried out generally in accordance with PA 06_0261, DA 450-10-2003 EPL 640, and ML to prevent and/or minimise any harm to the environment that may result from construction, operation, or rehabilitation of the project. No environmental harm was advised or identified during the audit period. See further detail in this table.
Terms of Approval			
2.2	The Applicant must carry out the development generally in accordance with the: (a) DA 450-10-2003; (b) EIS titled <i>Hunter Valley Operations – West Pit Extension and Minor Modifications</i> , volumes 1 – 4, dated October 2003, and prepared by Environmental Resources Management Australia; (c) the section 96(1A) modification application for the Hunter Valley Loading Point, dated 30 June 2005, and prepared by Matrix Consulting; (d) <i>Carrington Pit Extended Statement of Environmental Effects</i> volumes 1 & 2, dated October 2005, and prepared by Environmental Resources Management Australia; (e) <i>Carrington Pit Extension Response to Submissions Report</i> , dated May 2006, and prepared by Environmental Resources Management Australia; (f) Summary of Commitments for Carrington Pit as Extended,	Compliant	Key mining parameters are discussed in various conditions below. Review of current operations against the relevant approvals' documents listed in this condition which generally reflect the relevant EA commitments and undertakings for current stage of works.

Cond	Condition	Status	Evidence
	<p>dated 28 May 2006 and prepared by the Applicant;</p> <p>(g) Carrington West Wing Environmental Assessment dated 1 October 2010, Carrington West Wing Response to Submissions dated 21 December 2010, Carrington West Wing Agricultural Impact Assessment dated 10 June 2011, Carrington West Wing Statement of Commitments dated 4 March 2013;</p> <p>(h) HVO North – Fine Reject Emplacement Modification Environmental Assessment dated June 2013 and HVO North – Fine Reject Emplacement Modification Response to Submissions dated August 2013; and</p> <p>(i) modification application DA 450-10-2003 Modification 5 and accompanying environmental assessment entitled Hunter Valley Operations North Modification 5 HVLP Sediment Basin and HVO North Communication Towers Environmental Assessment and dated November 2016;</p> <p>(j) modification application DA 450-10-2003 Modification 6 and accompanying Environmental Assessment entitled Hunter Valley North Operations Modification 6 Environmental Assessment Report dated November 2016 and Hunter Valley North Operations Modification 6 Response to Submissions dated December 2016 and January 2017; and</p> <p>(k) modification application DA 450-10-2003 Modification 7 and accompanying Environmental Assessment entitled Proposed modification 7 to Hunter Valley Operations North development consent (DA 450-10-2003) to amend historical boundary errors and update the Schedule of Lands dated June 2017.</p>		
2A.	The Applicant must carry out the development in accordance with the conditions of this consent.	Not Compliant	Some non-compliances were identified as discussed below.

Cond	Condition	Status	Evidence
2.3	If there is any inconsistency between the documents listed in condition 2, the most recent document shall prevail to the extent of the inconsistency. The conditions of this consent shall prevail over the documents in condition 2 to the extent of any inconsistency.	Compliant	None have been identified as part of this IEA. AS confirmed none identified by HVO.
2.4	The Applicant must comply with any reasonable requirement/s of the Secretary arising from the Department's assessment of: (a) any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this consent (including any stages of these documents); (b) any reviews, reports or audits commissioned by the Department regarding compliance with this consent; and (c) the implementation of any actions or measures contained in these documents.	Compliant	As stated within management plans
Surrender of Consents			
2.5	Within 3 months of the submission of the revised West Pit extension MOP to the DRE, the Applicant must surrender all existing development consents and existing use rights associated with Hunter Valley Operations' (HVO's) mining operations and related facilities north of the Hunter River in accordance with clause 97 of the EP&A Regulation.	Not Triggered	Not occurred during audit period.
Limits on Approval			
2.6	The Applicant may carry out mining operations on the site until 12 June 2025.	Compliant	The current MOP Section 2.1 states that mining operations are planned to cease 12 June 2025.
2.7	The Applicant must not extract more than 12 million tonnes per annum (Mtpa) of ROM coal from the West Pit and 10 Mtpa of ROM coal from the Carrington Pit. <i>Note: Under this consent, the Applicant is required to rehabilitate the site and carry out additional undertakings to the satisfaction of both the Secretary and DRE.</i>	Compliant	2019 YTD – West Pit – 4.8 Mt ROM (with EOY forecast at 5.6Mt ROM) and Carrington Pit has not been mined this year. 2018 AR – Section 4.1.2 states West Pit -5.4 Mt ROM and Carrington Pit – 1.7 Mt ROM. 2017 AR – Section 4.1.2 states West Pit -6.04 Mt ROM and Carrington Pit – 0.01 Mt ROM.

Cond	Condition	Status	Evidence
	<i>Consequently, this consent will continue to apply in all other respects other than the right to conduct mining operations until the rehabilitation of the site and those additional undertakings have been carried out satisfactorily.</i>		2016 AR – Section 4.1.2 states combined total of 9.7 Mt ROM.
2.8	The Applicant must ensure that the Hunter Valley Coal Preparation Plant does not receive more than 16 Mtpa of coal from mining operations south of the Hunter River, and process more than 20 Mtpa of coal.	Compliant	Coal processed at HVCPP: 2019 YTD – 13.7Mt ROM (EOY Forecast at 14.9Mt ROM) 2018 AR – - Section 4.1.2 = 15.6 Mt 2017 AR – - Section 4.1.2 = 16.25 Mt 2016 AR - Section 4.1.2 = 15.08 Mt Coal received from mining operations south of the Hunter River: 2019 YTD – 12.7 (per comms. DB) 2018 AR – - Section 4.11. = 12.07 Mt 2017 AR – - Section 4.1.1 = 10.91 Mt 2016 AR - Section 4.1.1 = 10.91 Mt
2.9	The Applicant must ensure that the West Pit Coal Preparation Plant does not process more than 6 Mtpa of coal.	Compliant	Coal processed at West Pit CPP: 2019 YTD – 2.9 (per comms. DB) 2018 AR – - Section 4.1.2 = 2.4 Mt 2017 AR – - Section 4.1.2 = 3.33 Mt 2016 AR - Section 4.1.2 = 2.12 Mt
Structural Adequacy			
2.10	The Applicant must ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA. <i>Notes:</i> 1) <i>Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works.</i> 2) <i>Part 8 of the EP&A Regulation sets out the requirements for the certification of development.</i>	Compliant	2017 AR- Section 8.11 states no renovations or removals occurred; 2018 AR – Section 8.3 states no renovations or removals occurred; 2019- An extension the administration office and a parent’s room at HVO main administration building took place during the audit period. Viewed Building Inspection Report by AcroCert Pty Ltd which lists the preliminary final inspection of the Female bathhouse facilities upgrade took place on the 8 August 2019. The Inspection Report provided a conditional pass (until final inspection took place) that all works were satisfactory with a list of additional compliance related works to complete prior to final inspection.

Cond	Condition	Status	Evidence
	3) ¹ The development is located in the Patrick Plains Mine Subsidence District. Under section 15 of the Mine Subsidence Compensation Act 1961, the Applicant is required to obtain the Mine Subsidence Board's approval before constructing or relocating any improvements on the site.		Further works are still in progress to achieve final sign off.
Demolition			
2.11	The Applicant must ensure that any demolition work is carried out in accordance with AS 2601-2001: <i>The Demolition of Structures</i> , or its latest version.	Compliant	<p>2017 AR- Section 8.11 states no renovations or removals occurred;</p> <p>2018 AR – Section 8.3 states no renovations or removals occurred;</p> <p>2019 -The Newdell CPP was demolished during the audit period with majority of the demolition occurring between August to December with minor works scheduled for February 2020 relating to the substation (per comms. MB).</p> <p>Confirmed through CMO the actions listed through the weekly inspections were lodged as actions. Viewed Action relating to cleaning out sumps and remove rubbish which has not been closed out from the 15/10/19 however was confirmed this has been completed.</p> <p>Viewed completed risk assessment in excel document (HVO Newdell Demolition Risk Assessment HVO 190802) which lists compliance with AS 2601-2001.</p> <p>The keys points in the relevant Australian Standard relate to Hazardous Substances in particular the creation of a Hazardous Substances Management Plan</p> <p>Viewed relevant safety management including Chemicals Storage and Transport Work Instruction, Bioremediation Area Procedure, Emergency Response Plan.</p> <p>Viewed waste disposal tracking sheets for the Newdell CPP demolition works during field inspection which confirms correct disposal by signing load as disposed once the delivery docket was received. Viewed example docket number 12421741 dated 23 August 2019 which shows disposal of approximately 18 t at Infrabuild Recycling – Hexham.</p>

Cond	Condition	Status	Evidence
			Viewed example email dated 6/8/19 to Project Manager for this work providing figure showing what areas are approved for disturbance to avoid impact on flora and fauna.
Operation of Plant and Equipment			
2.12	The Applicant must ensure that all plant and equipment used at the site, or to transport coal off-site, are: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	Compliant	Refer to PA 06_0261 Sch 2 Cond 12.
Community Enhancement Contribution			
2.13	Before carrying out any development, or as agreed otherwise by Council, the Applicant must pay Council \$15,000 for the provision of stream improvement works in the Hunter River or its tributaries. If Council has not carried out these enhancement works within 12 months of payment, the Applicant may retrieve the funds from Council.	Not Triggered	Completed (IEA 2014)
2.14	<i>Deleted</i>	N/A	N/A
EVIDENCE OF CONSULTATION			
2.15	Where consultation with any stakeholder identified in the conditions of this consent is required by any conditions of this consent, the Applicant must: (a) consult with the relevant stakeholder prior to submitting the required document to the Secretary for approval; (b) submit evidence of such consultation as part of the relevant document; (c) describe how matters raised by the stakeholder have been addressed and identify any matters that have not been resolved; and (d) include details of any outstanding issues raised by the stakeholder and an explanation of disagreement between any stakeholder and the Applicant.	Not Compliant	Refer to Sch 3 Cond 61 where no evidence has been provided of correspondence with Singleton Council and RFS.

Cond	Condition	Status	Evidence				
COMPLIANCE							
2.16	The Applicant must ensure that all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this consent relevant to their respective activities.	Compliant	Refer to PA 06_0261 Sch 2 Cond 16.				
SCHEDULE 3							
SPECIFIC ENVIRONMENTAL CONDITIONS							
ACQUISITION UPON REQUEST							
3.1	<p>Upon receiving a written request for acquisition from any landowner of the land listed in Table 1, the Applicant must acquire the land in accordance with the procedures in conditions 6-7 of schedule 5 and condition 5 of schedule 5 for property 8.</p> <p><i>Table 1: Land subject to acquisition upon request</i></p> <table border="1"> <tr> <td>8 - Holz</td> <td>10 - Moses</td> </tr> <tr> <td>9 - Dallas</td> <td>12 - Barry</td> </tr> </table> <p><i>Note: To identify the locations referred to in Table 1, see Appendix 2.</i></p>	8 - Holz	10 - Moses	9 - Dallas	12 - Barry	Compliant	<p>All properties within Table 1 are mine owned All purchased before the audit period (AS per comms).</p> <p>Recommend updating Table 1 in the next Modification to remove mine owned land.</p>
8 - Holz	10 - Moses						
9 - Dallas	12 - Barry						
3.2	While the land listed in condition 1 is privately-owned, the Applicant must implement all practicable measures to ensure that the impacts of the development comply with the predictions in the EIS, to the satisfaction of the Secretary .	Not Triggered	<p>All properties are mine owned.</p> <p>Viewed AR 2017 and 2016 which shows compliance with predictions in the EIS.</p> <p>2018 AR Section 6.4.2.5 states 3 monitoring locations exceeded the impact assessment and land acquisition criteria for TSP at Kilburnie South, Knodlers Lane and Long Point during 2018. An investigation was completed by an external consultant which deemed HVO's contributions were within the AQMP and was not deemed a non-compliance.</p>				
AIR QUALITY & GREENHOUSE GAS							
Odour							
3.3	The Applicant must ensure that no offensive odours are emitted from the site, as defined under the POEO Act.	Compliant	<p>North Star Air Quality reviewed the following:</p> <ul style="list-style-type: none"> • Incident Registers (2017, 2018, 2019-YTD) reviewed. • 2018 Incident 2018091460.1 records a blocked sewer from HVO to HVS, recorded as a spill with 'Nil' environmental consequence. • Section 9.1 of the 2018 AEMR presents a summary of the complaints for the year, and does not note any odour complaints logged. 				

Cond	Condition	Status	Evidence
			<ul style="list-style-type: none"> The Complaints Register for 2019 has been accessed through the website, and no odour complaints are logged. The EPL public register has also been accessed and no regulatory actions relating to odour are listed. <p>On this basis it is concluded that there is no evidence of offensive odour from the site.</p>
Greenhouse Gas Emissions			
3.4	The Applicant must implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site to the satisfaction of the Secretary .	Not Compliant	Refer to PA 06_0261 Sch 3 Cond 51.
Air Quality Criteria			
3.4A	<p>Except for the air quality affected land in Table 1, the Applicant must ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the development do not exceed the criteria listed in Tables 2, 3 or 4 at any residence on privately-owned land or on more than 25 percent of any privately-owned land.</p> <p>In this condition 'reasonable and feasible avoidance and mitigation measures' includes, but is not limited to, the operational requirements in Condition 5 of Schedule 4 and the requirements in Conditions 5 and 6 of Schedule 4 to develop and implement a real-time air quality management system that ensures effective operational responses to the risks of exceedance of the criteria.</p>	Not Compliant	<p>Refer to PA 06_0261 Sch 3 Cond 19.</p> <p>Recommend at next modification condition is updated to be consistent with the industry Guidelines by referencing Note (b) incremental.</p>

Cond	Condition	Status	Evidence																							
	<p><i>Table 2: Long term criteria for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>^d Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td>^a 90 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td>^a 30 µg/m³</td> </tr> </tbody> </table> <p><i>Table 3: Short term criterion for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>^d Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td>^a 50 µg/m³</td> </tr> </tbody> </table> <p><i>Table 4: Long term criteria for deposited dust</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>Maximum increase in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td>^c Deposited dust</td> <td>Annual</td> <td>^b 2 g/m²/month</td> <td>^a 4 g/m²/month</td> </tr> </tbody> </table> <p><i>Notes to Tables 2–4:</i></p> <ul style="list-style-type: none"> • ^a Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources); • ^b Incremental impact (i.e. incremental increase in concentrations due to the development on its own); • ^c Deposited dust is to be 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. • ^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Secretary. 	Pollutant	Averaging Period	^d Criterion	Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³	Pollutant	Averaging Period	^d Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³	Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level	^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month		
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^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month																							
Air Quality Acquisition Criteria																										
3.4B	If particulate matter emissions generated by the development exceed the criteria in Tables 5, 6 or 7 on a systemic basis at any residence on privately-owned land or on more than 25 percent of any privately-owned land, then upon receiving a written request for acquisition from the landowner the Applicant must acquire the	Not Triggered	No written request has been received during the audit period (per comms. DB).																							

Cond	Condition	Status	Evidence																										
	<p>land in accordance with the procedures in Conditions 7 and 8 of Schedule 5.</p> <p><i>Table 5: Long term acquisition criteria for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>^d Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td>^a 90 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>Annual</td> <td>^a 30 µg/m³</td> </tr> </tbody> </table> <p><i>Table 6: Short term acquisition criteria for particulate matter</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>^d Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td>^a 150 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM₁₀)</td> <td>24 hour</td> <td>^b 50 µg/m³</td> </tr> </tbody> </table> <p><i>Table 7: Long term acquisition criteria for deposited dust</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Averaging Period</th> <th>Maximum increase in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td>^c Deposited dust</td> <td>Annual</td> <td>^b 2 g/m²/month</td> <td>^a 4 g/m²/month</td> </tr> </tbody> </table> <p><i>Notes to Tables 5-7:</i></p> <ul style="list-style-type: none"> • ^a Total impact (i.e. incremental increase in concentrations due to the development plus background concentrations due to all other sources); • ^b Incremental impact (i.e. incremental increase in concentrations due to the development on its own); • ^c Deposited dust is to be 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. • ^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Secretary. 	Pollutant	Averaging Period	^d Criterion	Total suspended particulate (TSP) matter	Annual	^a 90 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³	Pollutant	Averaging period	^d Criterion	Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 150 µg/m ³	Particulate matter < 10 µm (PM ₁₀)	24 hour	^b 50 µg/m ³	Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level	^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month		
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Mine-owned Land																													

Cond	Condition	Status	Evidence
3.4C	<p>The Applicant must ensure that particulate matter emissions generated by the development do not exceed the criteria listed in Table 2, Table 3 and Table 4 at any occupied residence on any mine-owned land (including land owned by adjacent mines) unless:</p> <p>(a) the tenant and landowner has been notified of health risks in accordance with the notification requirements under Schedule 5 of this consent;</p> <p>(b) the tenant on land owned by the Applicant can terminate their tenancy agreement without penalty, subject to giving reasonable notice, and the Applicant uses its best endeavours to provide assistance with relocation and sourcing of alternative accommodation;</p> <p>(c) air mitigation measures (such as air filters, a first flush roof water drainage system and/or air conditioning) are installed at the residence, if requested by the tenant and landowner (where owned by another mine other than the Applicant);</p> <p>(d) particulate matter air quality monitoring is undertaken to inform the tenant and landowner of potential health risks; and</p> <p>(e) monitoring data is presented to the tenant in an appropriate format, for a medical practitioner to assist the tenant in making an informed decision on the health risks associated with occupying the property, to the satisfaction of the Secretary.</p>	Compliant	<p>As per Sch 3 Cond 4A above.</p> <p>Viewed Figure 6 of the AQMP:</p> <p>Warkworth PM10 monitor residences owned by HVO and Wambo are covered by the current HVO air quality monitoring program.</p> <p>Kilburnie South monitor to the west are owned by Wambo and represented by the HVO compliance monitor. Kilburnie South monitor covers the mine owned residence in that area.</p> <p>East of Wanderwoi contained an average 25.6 PM10</p> <p>Viewed Chestnut East monitor representing the mine owned residences in the Chestnut east area which contained an average PM value of 26.3</p>
Air Quality Operating Conditions			
3.5	<p>The Applicant must:</p> <p>(a) implement best management practice to minimise the off-site odour, fume and dust emissions of the development, including best practice coal loading and</p>	Compliant	<p>North Star Air Quality reviewed the following:</p> <p>a) A Pollution Reduction Program (PRP) was implemented through EPL 640 in 2013. The objective of the PRP was to identify and implement best management practice for dust control at the site. PRP evidence reviewed</p>

Cond	Condition	Status	Evidence
	<p>profiling and other measures to minimise dust emissions from coal transportation by rail;</p> <p>(b) operate a comprehensive air quality management system on site that uses a combination of predictive meteorological forecasting, predictive and real time air dispersion modelling and real time air quality monitoring data to guide the day to day planning of mining operations and implementation of both proactive and reactive air quality mitigation measures to ensure compliance with the relevant conditions of this approval;</p> <p>(c) manage PM2.5 levels in accordance with any requirements of any EPL;</p> <p>(d) minimise the air quality impacts of the development during adverse meteorological conditions and extraordinary events (see noted above under Table 5-7);</p> <p>(e) minimise any visible off-site air pollution;</p> <p>(f) minimise the surface disturbance of the site generated by the development; and</p> <p>(g) co-ordinate air quality management on site with the air quality management at nearby mines (Mount Thorley Warkworth, Wambo, Ravensworth and HVO South mines) to minimise the cumulative air quality impacts of these mines and the development,</p> <p>to the satisfaction of the Secretary.</p>		<p>from the EPA website.</p> <p>b) AQGHGMO (2014) Section 6 discusses the implementation of a predictive modelling / forecasting resource for the Hunter Valley.</p> <p>AQGHGMP (2019) Section 6 presents a comprehensive management system, including daily predictive modelling</p> <p>c) EPL 640 does not require monitoring for PM2.5.</p> <p>d) AQGHGMP (2014) Section 6 and AQGHGMP (2019) Section 6 present procedure for proactive management of operations during adverse conditions. AQGHGMP (2014) Appendix C also addresses this issue.</p> <p>e) AQGHGMP (2014) Appendix C addresses visible dust control within a TARP.</p> <p>f) HVO Annual Review 2016, 2017 and 2018 outline programs for land rehabilitation to minimize the area of disturbed land.</p> <p>g) AQGHGMP (2014) Section 3.2 describes co-operation with nearby mines. Quarterly meeting with neighbouring mines occurs. Viewed meeting minutes 18/7/19 of the Greater Ravensworth Area which references the quarterly meetings to discuss cumulative impacts.</p> <p>Refer to PA 06_0261 Sch 3 Cond 22 regarding review on alarm responses.</p>
Air Quality & Greenhouse Gas Management Plan			
3.6	<p>The Applicant must prepare a detailed Air Quality & Greenhouse Gas Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with the EPA, and submitted to the Secretary for approval by the end of June 2013;</p> <p>(b) describe the measures that would be implemented to</p>	Compliant	<p>North Star Air Quality viewed the current Air Quality and Greenhouse Gas Management Plan (AQGHGMP) approved by the Secretary 6 September 2019.</p> <p>The majority of the audit period was completed under the previously approved management plan dated 11 February 2014 (DPIE approved in correspondence dated 12/2/14 as per 2016 IEA). The 2016 IEA completed</p>

Cond	Condition	Status	Evidence
	<p>ensure:</p> <ul style="list-style-type: none"> • best management practice is being employed; • the air quality impacts of the development are minimised during adverse meteorological conditions and extraordinary events; and • compliance with the relevant conditions of this consent. <p>(c) describe the proposed air quality management system;</p> <p>(d) include a risk/response matrix to codify mine operational responses to varying levels of risk resulting from weather conditions and specific mining activities;</p> <p>(e) include commitments to provide summary reports and specific briefings at CCC meetings on issues arising from air quality monitoring;</p> <p>(f) include an air quality monitoring program that:</p> <ul style="list-style-type: none"> • 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; • includes monitoring of occupied development-related residences and residences on air quality-affected land listed in Table 1, subject to the agreement of the tenant; • evaluates and reports on the effectiveness of the air quality management system; and • includes a protocol for determining any exceedances of the relevant conditions in this approval; and <p>(g) include a protocol that has been prepared in</p>		<p>a review of the AQGHGMP (2014) and deemed it compliant with this condition.</p> <p>The current AQGHGMP (2019) is reviewed below:</p> <p>a) Completed prior to audit period.</p> <p>b) Section 5 describes the management and mitigation to ensure compliance and best practice.</p> <p>c) Section 6 describes the management controls for HVO.</p> <p>d) Section 6.5 provides a risk/response matrix.</p> <p>e) Section 10.1.2 provides a commitment to provide these summary reports if required.</p> <p>f) Section 8 provides information on the air quality monitoring system.</p> <p>g) Section 3.2 provides the consultation that has taken place to minimise cumulative air quality impacts. A copy of the Inter-mine Environment & Community Interaction Meeting minutes (29th May 2019) was provided, documenting the meeting between Bloomfield, Yancoal, Peabody and Glencore (HVO and MTW noted as offering apologies for that meeting). The minutes document discussion on management of cumulative impacts of blasting, noise and air quality.</p>

Cond	Condition	Status	Evidence																		
	<p>consultation with the owners of nearby mines (Mt Thorley Warkworth, Wambo, Ravensworth and HVO South mines) to minimise the cumulative air quality impacts of these mines and the development.</p> <p>The Applicant must implement the approved management plan as approved from time to time by the Secretary</p>																				
Noise																					
Noise Impact Assessment Criteria																					
3.7	<p>The Applicant must ensure that the noise generated by the development does not exceed the noise impact assessment criteria presented in Table 9 at any privately-owned land.</p> <p><i>Table 9: Noise impact assessment criteria dB(A)</i></p> <table border="1"> <thead> <tr> <th>Day/Evening/Night LAeq(15 minute)</th> <th>Night LA1(1 minute)</th> <th>Land Number</th> </tr> </thead> <tbody> <tr> <td>40</td> <td>46</td> <td>4 – Muller (from year 1 to year 7) 7 – Stapleton Jerrys Plains Village – represented by residence locations 13 and 14 on Figure 24, volume 4 of the EIS (years 20 & 21). 1 – Hayes (years 20 & 21) 18 – Bennet (years 20 & 21) 51 – Nicholls (years 20 & 21) 52 – Old – (years 20 & 21)</td> </tr> <tr> <td>39</td> <td>46</td> <td>2 – Skinner 3 – Elisnore 11 – Fisher 19 – Biralee Feeds 31 – Cooper 36 – Garland 54 – Skinner</td> </tr> <tr> <td>38</td> <td>46</td> <td>1 – Hayes (from year 1 to year 19) 18 – Bennet (from year 1 to year 19) 51 – Nicholls (from year 1 to year 19) 52 – Old (from year 1 to year 19)</td> </tr> <tr> <td>36</td> <td>46</td> <td>4 – Muller (from year 8 to year 21)</td> </tr> <tr> <td>35</td> <td>46</td> <td>All other residential or sensitive receptors, excluding the receptors listed in condition 1 above.</td> </tr> </tbody> </table> <p>Notes: (a) The years referenced in Table 9 are to be considered as the position of mining operations as set out in the EIS for that year. If mining operations are delayed or accelerated from the planned location as shown in the</p>	Day/Evening/Night LAeq(15 minute)	Night LA1(1 minute)	Land Number	40	46	4 – Muller (from year 1 to year 7) 7 – Stapleton Jerrys Plains Village – represented by residence locations 13 and 14 on Figure 24, volume 4 of the EIS (years 20 & 21). 1 – Hayes (years 20 & 21) 18 – Bennet (years 20 & 21) 51 – Nicholls (years 20 & 21) 52 – Old – (years 20 & 21)	39	46	2 – Skinner 3 – Elisnore 11 – Fisher 19 – Biralee Feeds 31 – Cooper 36 – Garland 54 – Skinner	38	46	1 – Hayes (from year 1 to year 19) 18 – Bennet (from year 1 to year 19) 51 – Nicholls (from year 1 to year 19) 52 – Old (from year 1 to year 19)	36	46	4 – Muller (from year 8 to year 21)	35	46	All other residential or sensitive receptors, excluding the receptors listed in condition 1 above.	<p>Not Compliant</p>	<p>Bridges Acoustics reviewed the following:</p> <p>2019 2019 Monthly Environmental Monitoring Reports (January to September): measured noise levels complied with relevant criteria.</p> <p>2018 2018 Annual Review Section 6.2.4: measured noise levels exceeded LAeq,15min criteria at Jerrys Plains on the 9 August 2018 by 3 dBA with a reading of 39 LAeq,15min. As per Appendix B Section 5 of the NMP if an exceedance is recorded, a second reading is to be taken within 75mins, if this second reading does not exceed the criteria this is not deemed a non-compliance. The second reading taken within 75mins was recorded at 34 LAeq,15min. Appendix B Section 9 stipulates reporting to DPIE is only required for non-compliances. As noise levels have exceeded the criteria listed in Table 2 of this condition is deemed non-compliant. As per Section 4 of Appendix B of the NMP, HVO is only considered to be non-compliant if criteria exceed the relevant criteria on a follow up measurement taken within 75mins and therefore not required to report to DPIE as an exceedance.</p> <p>Measured noise levels exceeded LAeq,15min criteria at Jerrys Plains on the 5 September 2018 by 3 dBA with a reading of 39 LAeq,15min. As per Appendix B Section 5 of the NMP if an exceedance is recorded, a second reading is to be taken within 75mins, if this second reading does not exceed the criteria this is not deemed a non-compliance. The second reading taken</p>
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35	46	All other residential or sensitive receptors, excluding the receptors listed in condition 1 above.																			

Cond	Condition	Status	Evidence
	<p><i>EIS for a particular year, then the noise assessment criteria will be adjusted in accordance with the location of actual mining operations. The location of actual mining operations in relation to locations predicted in the EIS, will be indicated in the Annual Review (see schedule 6, condition 5).</i></p> <p>(b) <i>The noise limits in Table 9 are for the noise contribution of the West Pit extension and all Hunter Valley Operations north of the Hunter River and coal haulage identified in the EIS from the south side of the Hunter River.</i></p> <p>(c) <i>Noise from the development 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, to determine compliance with the LAeq(15 minute) noise limits in the above table.</i></p> <p>(d) <i>To determine compliance with the LAeq(15 minute) noise limits in the above table. Where it can be demonstrated that direct measurement of noise from the development is impractical, the EPA 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 must also be applied to the measured noise levels where applicable.</i></p> <p>(e) <i>Noise from the development is to be measured at 1 metre from the dwelling façade to determine compliance with the LA1(1 minute) noise limits in the above table.</i></p> <p>(f) <i>The noise limits in Table 9 are to be applied in accordance with the limitations and requirements set out</i></p>		<p>within 75mins was recorded at 34 LAeq,15min. Appendix B Section 9 stipulates reporting to DPIE is only required for non-compliances. As noise levels have exceeded the criteria listed in Table 2 of this condition is deemed non-compliant. As per Section 4 of Appendix B of the NMP, HVO is only considered to be non-compliant if criteria exceed the relevant criteria on a follow up measurement taken within 75mins and therefore not required to report to DPIE as an exceedance.</p> <p>Measured noise levels exceeded LAeq,15min criteria at Jerrys Plains on the 17 December 2018 by 2 dBA with a reading of 38 LAeq,15min. As per Appendix B Section 5 of the NMP if an exceedance is recorded, a second reading is to be taken within 75mins, if this second reading does not exceed the criteria this is not deemed a non-compliance. The second reading taken within 75mins in audible. Appendix B Section 9 stipulates reporting to DPIE is only required for non-compliances. As noise levels have exceeded the criteria listed in Table 2 of this condition is deemed non-compliant. As per Section 4 of Appendix B of the NMP, HVO is only considered to be non-compliant if criteria exceed the relevant criteria on a follow up measurement taken within 75mins and therefore not required to report to DPIE as an exceedance.</p> <p>2017 2017 Annual Review Sections 6.2.4 and 11.1: measured noise levels complied with relevant criteria.</p> <p>2016 2016 Annual Review (1 November to 31 December) Sections 6.2.4 and 11.1: measured noise levels complied with relevant criteria.</p>

Cond	Condition	Status	Evidence								
	<i>in Appendix 3.</i>										
Land Acquisition Criteria											
3.8	<p>If the noise generated by the development exceeds the criteria in Table 10, the Applicant must, upon receiving a written request for acquisition from the landowner, acquire the land in accordance with the procedures in Conditions 6 and 7 of Schedule 5.</p> <table border="1"> <caption>Table 10: Land acquisition criteria dB(A)</caption> <thead> <tr> <th>Day/Evening/Night <i>L_{Aeq}(15 minute)</i></th> <th>Property</th> </tr> </thead> <tbody> <tr> <td>43</td> <td>11 – Fisher</td> </tr> <tr> <td>42</td> <td>7 - Stapleton</td> </tr> <tr> <td>41</td> <td>All residential or sensitive receptors, excluding the receptors listed in condition 1 above</td> </tr> </tbody> </table> <p><i>Note: See notes (c) to (f) to Table 9.</i></p>	Day/Evening/Night <i>L_{Aeq}(15 minute)</i>	Property	43	11 – Fisher	42	7 - Stapleton	41	All residential or sensitive receptors, excluding the receptors listed in condition 1 above	Not Triggered	Noise levels complied with relevant criteria and therefore acquisition was not triggered.
Day/Evening/Night <i>L_{Aeq}(15 minute)</i>	Property										
43	11 – Fisher										
42	7 - Stapleton										
41	All residential or sensitive receptors, excluding the receptors listed in condition 1 above										
Noise Operating Conditions											
3.9	<p>The Applicant must:</p> <p>(a) implement best management practice to minimise the operational, low frequency, road and rail traffic noise of the development;</p> <p>(a) operate a comprehensive noise management system on site that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive noise mitigation measures to ensure compliance with the relevant conditions of this approval;</p> <p>(b) maintain the effectiveness of any installed noise suppression equipment on plant at all times and ensure defective plant is not used operationally until fully repaired;</p> <p>(c) ensure that any noise attenuated plant on site is deployed preferentially in locations relevant to sensitive receivers;</p>	Compliant	<p>Bridges Acoustics reviewed the following:</p> <p>(a): NMP Sections 4.7 and 4.8 describe noise mitigation measures for operational noise, including low frequency noise. Annual Reviews (2016 – 2018) Sections 6.2.1 to 6.2.3 describe real time noise management measures, including a summary of equipment downtime due to active noise management.</p> <p>No evidence is available to demonstrate best practice road and rail noise management; however, no road and rail noise related complaints were received during the audit period therefore specific management measures are not required.</p> <p>(a): NMP Sections 4.7 and 4.8 describe noise mitigation measures. Annual Reviews (2016 – 2018) Sections 6.2.1 to 6.2.3 describe real time noise management measures, including a summary of equipment downtime due to active noise management.</p> <p>(b): NMP Section 6.1.3 describes sound power level testing and that SPL testing would be completed on 1/3 of the attenuated fleet per annum resulting 100% of the fleet being tested every 3 years. Sound power level testing is mentioned in each Section 6.2.2 of Annual Review.</p>								

Cond	Condition	Status	Evidence
	<p>(d) minimise the noise impacts of the development during meteorological conditions when the noise limits in this approval do not apply;</p> <p>(e) ensure that the site is only accessed by locomotives that are approved to operate on the NSW rail network in accordance with the noise limits in ARTC's EPL (No. 3142);</p> <p>(f) use its best endeavours to ensure that the rolling stock supplied by service providers is designed, constructed and maintained to minimise noise;</p> <p>(g) co-ordinate the noise management on site with the noise management at nearby mines (Mt Thorley Warkworth, Wambo, Ravensworth and HVO South mines) to minimise the cumulative noise impacts of these mines and the development,</p> <p>to the satisfaction of the Secretary.</p>		<p>Workorders are in place for all sound attenuated trucks to be sound tested each three years (per comms DB) and are logged through HVO's maintenance schedule system (SAP). Viewed screenshots of example workorders for 830EAC Sound Compliance test for every 156 weeks (three years). Inconsistency in internal records were found in both the amount of haul trucks that have been attenuated and the completion of SPL testing, recommend this is resolved. For example, Annual Reviews (2016-2018) Section 6.2.2 describe progress on attenuation of mining equipment, resulting in 83% of haul trucks attenuated by the end of 2018. HVO's Sound Attenuation Tracking Sheet dated 22 March 2019 indicates 51% of 830E haul trucks have been fitted with sound suppression kits. Sound test reports for two of these trucks, dated April 2018, were provided which indicates the tracking sheet is out of date. According to the tracking sheet's planned fitment dates, all trucks should have attenuation fitted at the time of this IEA however there is no evidence all work has been completed. Records related to sound suppression and testing should be updated to be complete and consistent.</p> <p>Sound testing of this portion of truck fleet is scheduled to commence in early 2020. At this stage none of tested fleet have been identified needing additional work or requiring park up until repaired. Any defects identified are logged in the defect management system and scheduled for repair.</p> <p>(c): NMP Sections 6.1.1 to 6.1.3 describe procedures to identify noisy equipment and to preferentially deploy to or remove equipment from noise risk areas. An email dated August 2018 indicates the shift planners have access to the attenuated equipment list, permitting shift planning for low noise operation.</p> <p>(d): Annual Reviews (2016-2018) Section 6.2.3 describes active noise monitoring and management procedures including equipment downtime to maintain compliance with noise criteria.</p> <p>(e): NMP Section 6.5 includes a commitment to advise ARTC and rail</p>

Cond	Condition	Status	Evidence
			<p>providers regarding this condition. Viewed letter dated 20/1/19 from Pacific National which provides confirmation of compliance with this condition.</p> <p>(f): NMP Section 6.5 includes a commitment to advise ARTC and rail providers regarding this condition.</p> <p>(g): NMP Section 3.2 describes coordination and data sharing with the operators of nearby mines (Ravensworth Complex, Wambo, Mt Thorley Warkworth) to respond to potential or actual cumulative noise level events.</p>
Noise Management Plan			
3.10	<p>The Applicant must prepare a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with the EPA, and submitted to the Secretary for approval by the end of June 2013;</p> <p>(b) describe the measures that would be implemented to ensure:</p> <ul style="list-style-type: none"> • best management practice is being employed; • the noise impacts of the development are minimised during meteorological conditions when the noise criteria in this consent do not apply; and • compliance with the relevant conditions of this consent. <p>(c) describe the proposed noise management system in detail, including:</p> <ul style="list-style-type: none"> • nomination of the real-time noise monitoring locations and the noise levels that would trigger additional noise management actions; • a matrix of predetermined actions to be employed when trigger levels are exceeded; and 	Compliant	<p>Bridges Acoustics completed the following review:</p> <p>(a): NMP Appendix A provides evidence of consultation with the EPA. Appendix D of the current NMP (February 2019) provides evidence of approval from DP&E.</p> <p>(b): NMP Sections 6.1 and 6.2 describe proactive and reactive noise management measures.</p> <p>(c): NMP Section 6.2 describes the RTNMS including trigger levels and responses to alarms.</p> <p>(d): NMP Section 6.2.4 includes a description of the RTNMS, including Table 3 containing a noise TARP and Figure 2 containing responses to each alarm level.</p> <p>(e) NMP Section 6.3 describes monthly attended noise monitoring, with results in Monthly Monitoring Reports and in Annual Reviews. NMP Section 6.2 describes the RTNMS and associated procedures. NMP Section 7 and Appendix B describes the noise monitoring procedure and compliance evaluation protocol. Annual Reviews 2016-2018 Section 6.2 compares noise monitoring results to noise model predictions, with generally good correlation.</p> <p>(f): NMP Section 3.2 describes informal agreements with the operators of nearby mines to share data and manage cumulative noise levels.</p>

Cond	Condition	Status	Evidence
	<ul style="list-style-type: none"> • procedures for varying the rates and locations of attended monitoring should the real-time monitoring data suggest that the relevant noise limits are being exceeded; (d) include a risk/response matrix to codify mine operational responses to varying levels of risk resulting from weather conditions and specific mining activities; (e) include a noise monitoring program that: <ul style="list-style-type: none"> • uses attended monitoring to evaluate the performance of the development, including a minimum of four days attended monitoring per quarter at locations agreed to by the Secretary, or more regularly where required; • uses real-time monitoring to support the proactive and reactive noise management system on site; • evaluates and reports on the effectiveness of the noise management system on site; • provides for the annual validation of the noise model for the development; and (f) include a protocol that has been prepared in consultation with the owners of nearby mines (Mt Thorley Warkworth, Wambo, Ravensworth and HVO South mines) to minimise the cumulative noise impacts of these mines and the development. <p>The Applicant must implement the approved management plan as approved from time to time by the Secretary.</p>		
METEOROLOGICAL MONITORING			
3.11	The Applicant must maintain a permanent meteorological station at a location approved by the EPA, and to the satisfaction of the Secretary, to monitor the parameters specified in Table 13, using	Compliant	AQGHGMP (2014) Appendix B and Table 5 of the 2019 AQMP presents the details of meteorological monitoring at the HVO Weather Station. The following figure in Appendix B shows two met stations “Corporate Met

Cond	Condition	Status	Evidence																																																		
	<p>the specified units of measure, averaging period, frequency, and sampling method in the table.</p> <p><i>Table 11: Meteorological monitoring</i></p> <table border="1"> <thead> <tr> <th>Parameter</th> <th>Units of measure</th> <th>Averaging period</th> <th>Frequency</th> <th>Sampling method¹</th> </tr> </thead> <tbody> <tr> <td>Lapse rate</td> <td>°C/100m</td> <td>1 hour</td> <td>Continuous</td> <td>Note²</td> </tr> <tr> <td>Rainfall</td> <td>mm/hr</td> <td>1 hour</td> <td>Continuous</td> <td>AM-4</td> </tr> <tr> <td>Sigma Theta @ 10 m</td> <td>°</td> <td>1 hour</td> <td>Continuous</td> <td>AM-2</td> </tr> <tr> <td>Siting</td> <td>-</td> <td>-</td> <td>-</td> <td>AM-1</td> </tr> <tr> <td>Temperature @ 10 m</td> <td>K</td> <td>1 hour</td> <td>Continuous</td> <td>AM-4</td> </tr> <tr> <td>Temperature @ 2 m</td> <td>K</td> <td>1 hour</td> <td>Continuous</td> <td>AM-4</td> </tr> <tr> <td>Total Solar Radiation @ 2m</td> <td>W/m²</td> <td>1 hour</td> <td>Continuous</td> <td>AM-4</td> </tr> <tr> <td>Wind Direction @ 10 m</td> <td>°</td> <td>1 hour</td> <td>Continuous</td> <td>AM-2</td> </tr> <tr> <td>Wind Speed @ 10 m</td> <td>m/s</td> <td>1 hour</td> <td>Continuous</td> <td>AM-2</td> </tr> </tbody> </table> <p>¹ NSW EPA, 2001, Approved Methods for the Sampling and Analysis of Air Pollutants in NSW. ² The Applicant must calculate lapse rate from measurements made at 2m and 10m or any improved system of the determination of inversions.</p>	Parameter	Units of measure	Averaging period	Frequency	Sampling method ¹	Lapse rate	°C/100m	1 hour	Continuous	Note ²	Rainfall	mm/hr	1 hour	Continuous	AM-4	Sigma Theta @ 10 m	°	1 hour	Continuous	AM-2	Siting	-	-	-	AM-1	Temperature @ 10 m	K	1 hour	Continuous	AM-4	Temperature @ 2 m	K	1 hour	Continuous	AM-4	Total Solar Radiation @ 2m	W/m ²	1 hour	Continuous	AM-4	Wind Direction @ 10 m	°	1 hour	Continuous	AM-2	Wind Speed @ 10 m	m/s	1 hour	Continuous	AM-2		<p>Station” and “Cheshunt Met Station”.</p> <p>Additional information has been provided with regard to instrument calibration at HVO North for the audit period including:</p> <p>HVO Corp AWS</p> <ul style="list-style-type: none"> - Wind sensor (WS/WD) - Relative humidity - Rain gauge - Temperature - HVO does not measure temperature at 2 and 10m for calculation of lapse rate however as per footnote 2 of Table 11, HVO utilise s the sigma theta method for determining inversion and would therefore not be required to undertake a direct measure of lapse rate.
Parameter	Units of measure	Averaging period	Frequency	Sampling method ¹																																																	
Lapse rate	°C/100m	1 hour	Continuous	Note ²																																																	
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BLASTING & VIBRATION																																																					
Airblast Overpressure Limits																																																					
3.12	<p>The Applicant must ensure that the airblast overpressure level from blasting at the development does not exceed the criteria in Table 14 at any residence on privately-owned land.</p> <p><i>Table 12: Airblast overpressure impact assessment criteria</i></p> <table border="1"> <thead> <tr> <th>Airblast overpressure level (dB(Lin Peak))</th> <th>Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td>115</td> <td>5% of the total number of blasts in a 12 month period</td> </tr> <tr> <td>120</td> <td>0%</td> </tr> </tbody> </table>	Airblast overpressure level (dB(Lin Peak))	Allowable exceedance	115	5% of the total number of blasts in a 12 month period	120	0%	Compliant	<p>Bridges Acoustics completed the following review:</p> <p>2019 2019 Monthly Environmental Monitoring Reports (January to September): measured overpressure levels complied with relevant criteria. There were occasional exceedances of the 115 dB dBLPk criterion, however such events occurred less than 5% of all blasts in each year which complies with this condition.</p> <p>2018 2018 Annual Review Section 6.3.2: measured overpressure levels complied with relevant criteria.</p> <p>2017 2017 Annual Review Section 6.3.2: measured overpressure levels complied with relevant criteria.</p> <p>2016 2016 Annual Review (1 November to 31 December) Section 6.3.2: measured overpressure levels complied with relevant criteria.</p>																																												
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115	5% of the total number of blasts in a 12 month period																																																				
120	0%																																																				

Cond	Condition	Status	Evidence						
Ground Vibration Impact Assessment Criteria									
3.13	<p>The Applicant must ensure that the ground vibration level from blasting at the development does not exceed the criteria in Table 15 at any residence on privately-owned land.</p> <p><i>Table 13: Ground vibration impact assessment criteria</i></p> <table border="1"> <thead> <tr> <th>Peak particle velocity (mm/s)</th> <th>Allowable exceedance</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>5% of the total number of blasts in a 12 month period</td> </tr> <tr> <td>10</td> <td>0%</td> </tr> </tbody> </table>	Peak particle velocity (mm/s)	Allowable exceedance	5	5% of the total number of blasts in a 12 month period	10	0%	Compliant	<p>Bridges Acoustics completed the following review:</p> <p>2019 2019 Monthly Environmental Monitoring Reports (January to September): measured vibration levels complied with relevant criteria.</p> <p>2018 2018 Annual Review Section 6.3.2: measured vibration levels complied with relevant criteria.</p> <p>2017 2017 Annual Review Section 6.3.2: measured vibration levels complied with relevant criteria.</p> <p>2016 2016 Annual Review (1 November to 31 December) Section 6.3.2: measured vibration levels complied with relevant criteria.</p>
Peak particle velocity (mm/s)	Allowable exceedance								
5	5% of the total number of blasts in a 12 month period								
10	0%								
Blasting Hours									
3.14	The Applicant must only carry out blasting at the development between 7 am and 6 pm Monday to Saturday inclusive. No blasting is allowed on Sundays, Public Holidays or any other time without the written approval of the EPA.	Compliant	A detailed review of spreadsheets containing blast data for the period January 2017 to September 2019 indicates compliance with this condition.						
Blasting Frequency									
3.14A.	<p>The Applicant may carry out a maximum of:</p> <p>(a) 3 blasts a day, unless an additional blast is required following a blast misfire; and</p> <p>(b) 12 blasts a week,</p> <p>for all open cut mining operations at the HVO North mine. This condition does not apply to blasts that generate ground vibration of 0.5 mm/s or less at any residence on privately-owned land, or to blasts required to ensure the safety of the mine or its workers.</p> <p><i>Note: For the purposes of this condition, a blast refers to a single blast event, which may involve a number of individual blasts fired</i></p>	Compliant	<p>Annual Reviews do not report blast dates.</p> <p>A detailed review of spreadsheets containing blast data for the period January 2017 to September 2019 indicates compliance with this condition.</p>						

Cond	Condition	Status	Evidence
	<i>in quick succession in a discrete area of the mine.</i>		
Interactions with Adjoining Mines			
3.15	Prior to carrying out any mining or associated development within 500 metres of active mining areas at Ravensworth Operations, the Applicant must enter into an agreement with Ravensworth Operations Pty Ltd (or its assigns or successors in title) to address the potential interactions between the two mines. If during the course of entering into this agreement, or subsequently implementing this agreement, there is a dispute between the parties about any aspect of the agreement, then either party may refer the matter to the Secretary for resolution.	Compliant	Viewed Blasting Cooperation Deed with Ravensworth mine and Cumnock dated 17/10/16. No disagreement or disputes occurred during the audit period (DB per comms.)
3.16	Prior to carrying out any mining or associated development within 500 metres of active mining areas at Cumnock No. 1 Colliery, the Applicant must enter into an agreement with Cumnock No. 1 Colliery Pty Ltd (or its assigns or successors in title) to address the potential interactions between the two mines. If during the course of entering into this agreement, or subsequently implementing this agreement, there is a dispute between the parties about any aspect of the agreement, then either party may refer the matter to the Secretary for resolution.	Compliant	As above
Property Inspections			
3.16A.	If the Applicant receives a written request from the owner of any privately-owned land within 2 kilometres of the approved open cut mining pit/s on site for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection updated, then within 2 months of receiving this request the Applicant must : (a) provide the Secretary with a report that: <ul style="list-style-type: none"> establishes the baseline condition of any buildings and other structures on the land, or updates the previous property inspection 	Not Triggered	No privately-owned land within 2 km of the approved open cut mining pit/s on site (per comms. AS).

Cond	Condition	Status	Evidence
	<p>report; and</p> <ul style="list-style-type: none"> • identifies measures that should be implemented to minimise the potential blasting impacts of the development on these buildings and/or structures; and <p>(b) provide the landowner with a copy of the new or updated property inspection report.</p> <p>The report is to be prepared by a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties. If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or the landowner disagrees with the findings of the inspection report, either party may refer the matter to the Secretary for resolution.</p> <p>If the Applicant considers that an extension of time is required to complete the report, the Applicant may apply in writing to the Secretary for an extension. The Applicant must provide a copy of the request and of the Secretary's decision to the landowner.</p>		
Property Investigations			
3.16B	<p>If the owner of any privately-owned land within 3 kilometres of any approved open cut mining pit on the site or any other privately-owned land where the Secretary is satisfied that an investigation is warranted, claims that buildings and/or structures on his/her land have been damaged as a result of blasting on the site, then within 2 months of receiving this claim the Applicant must:</p> <p>(a) provide the Secretary with a report that:</p> <ul style="list-style-type: none"> • investigates the claim; and • identifies measures or works that should be implemented to rectify any blasting impacts of 	Not Triggered	No privately-owned land within 3 km of the approved open cut mining pit/s on site (per comms. AS).

Cond	Condition	Status	Evidence
	<p>the development on these buildings and/or structures; and</p> <p>(b) provide the landowner with a copy of the claim inspection report and recommendations.</p> <p>If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Applicant must repair the damage to the satisfaction of the Secretary.</p> <p>The report is to be prepared by a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties. If there is a dispute over the selection of the suitably qualified, experienced and independent person, or the Applicant or the landowner disagrees with the findings of the claim inspection report, either party may refer the matter to the Secretary for resolution.</p> <p>If the Applicant considers that an extension of time is required to complete the report, the Applicant may apply in writing to the Secretary for an extension. The Applicant must provide a copy of the request and of the Secretary's decision to the landowner.</p>		
Blasting Operating Conditions			
3.17	<p>During mining operations on site, the Applicant must:</p> <p>(a) implement best management practice to:</p> <ul style="list-style-type: none"> • protect the safety of people and livestock in the surrounding area; • protect public or private infrastructure/property in the surrounding area from any damage; and • minimise the dust and fume emissions of any blasting; <p>(b) minimise the frequency and duration of any road closures, and avoid road closures during peak traffic periods;</p>	Compliant	<p>Bridges Acoustics reviewed the following:</p> <p>(a): BMP Sections 6.2 and 4.2.2 describe management measures including detailed blast design, meteorological assessments, notification to potentially affected landowners and occupants, closure of public roads within 500 m from a blast site, exclusion zones for people, equipment and livestock.</p> <p>(b): BMP Appendix C contains road closure management plans which include frequency and duration limits for road closures.</p> <p>(c): BMP Section 6.8 describes a cooperation protocol with the operators of nearby mines to minimise cumulative impacts.</p> <p>(d): BMP Section 6.2 includes notification of blast events to potentially affected landowners and occupiers, including a telephone hotline and</p>

Cond	Condition	Status	Evidence
	<p>(c) co-ordinate the timing of blasting on site with the timing of blasting at nearby mines (including the Mt Thorley Warkworth, Wambo, Ravensworth and HVO South mines) to minimise the cumulative blasting impacts of these mines and HVO North mine; and</p> <p>(d) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site, to the satisfaction of the Secretary.</p>		individual notification to residents if requested.
3.18	<p>The Applicant must not undertake blasting on site within 500 metres of:</p> <p>(a) any public road without the approval of the appropriate road authority; or</p> <p>(b) any land outside the site that is not owned by the Applicant; unless</p> <ul style="list-style-type: none"> • the Applicant has a written agreement with the relevant landowner to allow blasting to be carried out closer to the land, and the Applicant has advised the Department in writing of the terms of this agreement, or • the Applicant has: <ul style="list-style-type: none"> - demonstrated to the satisfaction of the Secretary that the blasting can be carried out closer to the land without compromising the safety of the people or livestock on the land, or damaging the buildings and/or structures on the land; and - updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the land. 	Compliant	<p>(a): BMP Appendix C contains road closure plans, which include Road Occupancy Licences from Roads and Maritime Services for the Golden Highway and approval from Singleton Council for Lemington Road.</p> <p>(b): BMP Section 6.8 describes a cooperative agreement with Glencore for blasting near Ravensworth Operations and Cumnock No. 1 Colliery. Based on an updated 500m blast buffer plan prepared by HVO on 19 December 2019, all other occupied land not owned by HVO is located more than 500 m from blast sites.</p>
Blast Management Plan			

Cond	Condition	Status	Evidence
3.19	<p>The Applicant must prepare a Blast Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <p>(a) be submitted to the Secretary for approval by the end of September 2013 unless otherwise agreed;</p> <p>(b) propose and justify any alternative ground vibration limits for any public infrastructure in the vicinity of the site;</p> <p>(c) describe the measures that would be implemented to ensure:</p> <ul style="list-style-type: none"> • best management practice is being employed; • compliance with the relevant conditions of this consent; • that blasting will not cause damage to the Carrington West Wing Groundwater Barrier (LPB) as described in Condition 23 of Schedule 4; and • that blasting in the Carrington West Wing does not cause damage or instability to the Carrington In Pit Fine Reject Emplacement embankment; <p>(d) include a road closure management plan for blasting within 500 metres of a public road, that has been prepared in consultation with the RMS and Council;</p> <p>(e) include a specific blast fume management protocol to demonstrate how emissions will be minimised including risk management strategies if blast fumes are generated;</p> <p>(f) include a monitoring program for evaluating the performance of the development, including:</p> <ul style="list-style-type: none"> • compliance with the applicable criteria; • minimising the fume emissions from the site; and 	Compliant	<p>Bridges Acoustics completed the following review:</p> <p>(a): BMP Appendix G contains a letter from DP&E confirming approval of the latest version of the BMP.</p> <p>(b): BMP Section 4.2.2 discusses Lemington Bridge which is assigned a vibration limit of 10 mm/s and predicted vibration levels considerably lower than this limit.</p> <p>(c): BMP Sections 5.2 and 6 describe management measures intended to result in compliance with relevant criteria and minimal impacts on other properties and landowners.</p> <p>BMP Section 6.5 discusses the Carrington West Wing Groundwater Barrier; however, this barrier has not been constructed.</p> <p>BMP Section 6.6 discusses the Carrington In Pit Fine Reject Emplacement, however this has not been constructed.</p> <p>(d): BMP Appendix C contains road closure plans, which include Road Occupancy Licences from Roads and Maritime Services for the Golden Highway and approval from Singleton Council for Lemington Road.</p> <p>(e): BMP Section 6.2 discusses blast fume management and Appendix B contains a blast fume management plan.</p> <p>(f): BMP Appendix D contains a detailed blast monitoring plan.</p> <p>BMP Appendix B contains a fume management plan.</p> <p>(g): BMP Sections 3.2 and 6.8 discuss cooperation and cumulative blast management measures with nearby mines, particularly Ravensworth Operations and Cumnock No. 1 Colliery operated by Glencore.</p> <p>Recommendation: Revise and update references in BMP Section 1 Tables 1 to 3, particularly Appendix references as such errors have been noted in all three tables.</p>

Cond	Condition	Status	Evidence
	<p>(g) include a protocol that has been prepared in consultation with the owners of nearby mines (including the Mt Thorley Warkworth, Wambo, Ravensworth and HVO South mines) to minimise the cumulative blasting impacts of these mines and the HVO North mine.</p> <p>The Applicant must implement the approved management plan as approved from time to time by the Secretary.</p>		
²SURFACE AND GROUNDWATER			
	<p><i>Note: Under the Water Act 1912 and/or Water Management Act 2000, the Applicant is required to obtain the necessary water licences and approvals for the development.</i></p>	Compliant	<p>Viewed Section 5.6 and Table 5.2 of the WMP which states that HVO holds 16 WALs, including:</p> <ul style="list-style-type: none"> • Six water access licences (WALs) that permit groundwater extraction from the Hunter Unregulated and Alluvial Water Sources. • Four WALs that permit surface water extraction from the Hunter Regulated River Water Source. • Six WALs that permit the extraction of groundwater from the Permian coal measures via open cut pits and bores. <p>Viewed the 2018 AR Table 7 which lists 17 approved WALs and two additional WALs pending approval. HVO has also provided copies of 68 WALs as part of this IEA. Recommended that future versions of the WMP include an up-to-date list of the WALs and that all WALs are made available via the website.</p> <p>Viewed Section 6.1 of the 2018 AR and 2.3 of the 2017 AR (2017 Predicted Groundwater Take Report) which confirm that groundwater take is within the licensed entitlement volumes shown in the WMP.</p> <p>Viewed Table 33 of the 2018 AR which indicates that surface water take from the Hunter River is within the licensed entitlement volumes shown in the WMP.</p>
Pollution of Waters			

Cond	Condition	Status	Evidence
3.20	Except as may be expressly provided by an EPA licence, the Applicant must comply with section 120 of the <i>Protection of the Environment Operations Act 1997</i> during the carrying out of the development.	Not Compliant	<p>Viewed Section 11.3 of the 2016 AR which confirmed that government agencies were notified of a non-compliant discharge from leaking pipework on Parnells Dam to Parnells Creek on 4 November 2016. The 2016 AR indicates that 'no material environmental harm occurred' and remedial works were undertaken to prevent recurrence. HVO was issued with a \$15,000 penalty notice as a result of this discharge.</p> <p>Viewed Section 11.4.1 of the 2017 AR which confirmed that government agencies were notified of a non-compliant discharge from the Hunter Valley Load Point Sump to Bayswater Creek on 30 March 2017. The 2017 AR indicates that 'no material environmental harm occurred' and remedial works were undertaken to prevent recurrence. HVO was issued with a \$15,000 penalty notice as a result of this discharge. This resulted in updating the Hunter Valley Load Point sediment sump (See Plate 18).</p> <p>Viewed Section 11.2 of the 2018 AR which confirmed that government agencies were notified of two non-compliant discharges. On 11 May 2018, the Newdell Load Point firewater tank discharged to Bayswater Creek due to incorrect pump controls being applied. The 2018 AR indicates that remedial and preventative works were undertaken to prevent recurrence. HVO was issued with two penalty notices totalling \$30,000 as a result of these discharges. On 5 October 2018, turbid runoff from pre-stripping areas overtopped catch dams and entered Ferrell's Creek. The 2018 AR indicates that remedial and preventative works were undertaken to prevent recurrence. The outcome of this discharge is not reported.</p> <p>Viewed incident spreadsheets (2018 Environmental Incidents.xlsx and 2019 Environmental Incidents YTD.xlsx) which indicate that additional discharges and hydrocarbon spillages have occurred since 5 October 2018.</p>
Water Supply			

Cond	Condition	Status	Evidence
3.20A	<p>The Applicant must ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of mining operations to match its available water supply, to the satisfaction of the Secretary.</p>	Compliant	<p>Viewed Section 6.2 of the WMP which confirms that the mine typically operates with a net water surplus. Under average climate conditions, train load points are supplied from the Glencore Liddell Mine (due to its proximity) under an existing agreement. During extended dry periods the mine may operate a water deficit. The WMP explains that the site water inventory will preferentially be used to supply any water deficit. Additional contingency supplies include the current water share allocation from the Hunter River and water transfers from neighbouring mines.</p> <p>Section 7.1.2 of the 2016 AR which indicates that HVO operated with a net water deficit of 350 ML (due to drier than average conditions). The water deficit was supplied by the existing stored water inventory.</p> <p>Section 7.1.2 of the 2017 AR which indicates that HVO operated with a net water deficit of 1,446 ML (due to drier than average conditions). The water deficit was supplied by water from the Hunter River and other mines.</p> <p>Section 7.1.2 of the 2018 AR which indicates that HVO operated with a net water surplus of 2,770 ML. The water surplus was mainly due to rainfall runoff and Hunter River abstractions.</p>
Compensatory Water Supply			
3.20B	<p>The Applicant must provide compensatory water supply to any landowner of privately-owned land whose water supply is adversely and directly impacted (other than an impact that is negligible) as a result of the development, in consultation with DPI Water, and to the satisfaction of the Secretary.</p> <p>The compensatory water supply measures must provide an alternative long-term supply of water that is equivalent to the loss attributed to the development. Equivalent water supply should be provided (at least on an interim basis) within 24 hours of the loss being identified, unless otherwise agreed with the landowner.</p> <p>If the Applicant and the landowner cannot agree on the measures to be implemented, or there is a dispute about the implementation</p>	Not Triggered	<p>Viewed the 2018 AR, 2017 AR and 2016 AR which do not indicate that any landholder water supplies were impacted as a result of the mining operations.</p>

Cond	Condition	Status	Evidence									
	<p>of these measures, then either party may refer the matter to the Secretary for resolution.</p> <p>If the Applicant is unable to provide an alternative long-term supply of water, then the Applicant must provide alternative compensation to the satisfaction of the Secretary.</p>											
Discharge Limits												
3.21	<p>Except as may be expressly provided by an EPA licence or the Protection of the Environment Operations (Hunter River Salinity Trading Scheme) Regulation 2002 (or any subsequent version of the Regulation), the Applicant must:</p> <p>(a) not discharge more than 237 ML/day from the licensed discharge points at HVO north of the Hunter River;</p> <p>(b) ensure that the discharges from licensed discharge points comply with the limits in Table 17:</p> <p><i>Table 15: Discharge Limits</i></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of measure</th> <th>100 percentile concentration limit</th> </tr> </thead> <tbody> <tr> <td>pH</td> <td>pH</td> <td>6.5 ≤ pH ≤ 9.5</td> </tr> <tr> <td>Non-filterable residue</td> <td>mg/litre</td> <td>NFR ≤ 120</td> </tr> </tbody> </table> <p><i>Note: This condition does not authorise the pollution of waters by any other pollutants.</i></p>	Pollutant	Units of measure	100 percentile concentration limit	pH	pH	6.5 ≤ pH ≤ 9.5	Non-filterable residue	mg/litre	NFR ≤ 120	Compliant	Viewed the 2018 AR, 2017 AR and 2016 AR and EPL monitoring reports for Jan to Oct 2019 which show that no discharges occurred during the audit period.
Pollutant	Units of measure	100 percentile concentration limit										
pH	pH	6.5 ≤ pH ≤ 9.5										
Non-filterable residue	mg/litre	NFR ≤ 120										
Water Licensing												
3.22	<p>Prior to the renewal of a licence obtained under the Water Act, or 5 years after the issue date (whichever is first), the Applicant must undertake a comparison of predicted impacts, on water resources, in the EIS against actual impacts, to the satisfaction of the DPI Water.</p>	Compliant	Viewed the 2018 AR, 2017 AR and 2016 which provide comparisons of the actual and predicted impacts (as presented in the EIS). These reports indicate that the actual impacts are generally consistent with those presented in the EIS.									
Groundwater Barrier												
3.22A	<p>Within 2 years of commencing mining in the Carrington Pit Southern Extension, or as otherwise agreed with the Secretary, the Applicant must construct a groundwater barrier wall across the eastern arm of the palaeochannel of the Hunter River, to the</p>	Compliant	<p>Viewed Section 3.1 of the HVO North Modification 6 Environmental Assessment Report which confirms that the groundwater barrier has been constructed across the eastern arm of the Hunter River paleochannel.</p> <p>Viewed the 2016 IEA which confirms that the 2014 IEA verified that the</p>									

Cond	Condition	Status	Evidence
	satisfaction of the Secretary and at a location no further south than shown in the figure “Carrington River Red Gums, Billabong and Associated Infrastructure” included in the Carrington Pit Extension Response to Submissions Report, dated May 2006.		groundwater barrier has been constructed in accordance with this condition and states that monitoring data shows this barrier has effectively mitigated seepage from Carrington Pit. Viewed the 2016 AR and 2017 AR which show that groundwater levels have remained below the groundwater barrier crest between 2014 and 2017. Viewed the 2018 AR (which includes the 2018 Annual Groundwater Review). The 2018 AR concludes that alluvial groundwater levels around Carrington Pit have remained stable and there have been no effects on the groundwater-dependent Carrington billabong as a result. Viewed Carrington Barrier Wall Construction Report by PB dated December 2010.
3.22B	By 31 December 2006, or as otherwise agreed with the Secretary, the Applicant must submit a report to the Department and the DPI Water that: (a) examines all reasonable and feasible options for the design and construction of the groundwater barrier wall (including matters such as materials, timing and method of construction, costs, projected initial and long-term effectiveness) to the satisfaction of the Secretary; and (b) recommends a preferred option for the approval of the Secretary. ³ Incorporates DPI Water GTAs	Compliant	Viewed the 2016 IEA which confirms that the 2014 IEA and 2007 HLA audit verified that the required report was provided in accordance with this condition.
Carrington West Wing Groundwater Barrier (LPB)			
3.23	The Applicant must design the Carrington West Wing LPB to the satisfaction of DPI Water and the Secretary. The detailed design must: (a) ensure that negligible movement of water can occur through the barrier in either direction over the long term;	Not Triggered	Viewed the 2018 AR which confirmed that the approved Carrington West Wing development had not commenced as of the end of 2018 and is not planned to commence in the near future. HVO has confirmed (191018 HVO IEA RFI- Client comments.docx) that the Carrington West Wing has not been developed and that this condition has not been triggered during the audit period.

Cond	Condition	Status	Evidence
	<p>(b) be prepared by a suitably qualified and experienced expert/s;</p> <p>(c) be endorsed by DPI Water and approved by the Secretary, prior to construction of the LPB;</p> <p>(d) achieve the relevant performance measures including:</p> <ul style="list-style-type: none"> • applicable permeability of 10⁻⁸ metres/second or less; • applicable Australian Standards (including AS 3798-2007); and • hydraulic, geomorphologic and seismic stability which will withstand any blasting related vibrations, mining operations, fluvial and weather events, decay corrosive and biological attack. <p><i>Note: The conceptual low permeability barrier is shown in Appendix 4.</i></p>		
3.24	<p>Prior to undertaking any mining operations within 100 metres of the western arm of the Hunter River paleochannel, the Applicant must:</p> <p>(a) install the LPB in the western arm of the paleochannel;</p> <p>(b) submit an as-executed report to the Secretary and DPI Water by a suitably qualified and experienced practising engineer, certifying that the LPB has been constructed to achieve the relevant performance measures set out in Condition 23(d) of Schedule 4; and</p> <p>(c) obtain endorsement on the installed LPB from DPI Water.</p> <p>If there is evidence after its installation that the LPB is not achieving the performance objective and performance measures in Condition 23 of Schedule 4, mining operations within 100</p>	Not Triggered	Refer to Sch 3 Cond 23 above.

Cond	Condition	Status	Evidence
	metres of the western arm of the Hunter River paleochannel must cease until approval to recommence is granted by the Secretary.		
LPB Monitoring and Management Plan			
3.25	<p>The Applicant must prepare a Low Permeability Barrier Monitoring and Management Plan to the satisfaction of DPI Water and the Secretary. The plan must:</p> <ul style="list-style-type: none"> (a) address the monitoring and management of both the Carrington West Wing LPB and the Carrington Pit Southern Extension LPB; (b) be prepared by a suitably qualified and experienced expert; (c) be endorsed by DPI Water and approved by the Secretary, prior to construction of the Carrington West Wing LPB; (d) describe the monitoring and maintenance procedures to be implemented and the scheduling of these procedures; (e) demonstrate that the monitoring system is capable of timely detection of any failure or deficiency in either LPB; and (f) describe the contingency measures that will be implemented in the event of a failure or deficiency in either LPB. <p>The Applicant must implement the approved monitoring and management plan as approved from time to time by the Secretary.</p>	Not Triggered	Refer to Sch 3 Cond 23 above.
Flood Design Works			
3.26	The Applicant must design and construct the flood levees and associated flood design works in the Carrington West Wing area at least 1.0 metres higher than the 1 in 100 year ARI flood event, to the satisfaction of DPI Water.	Not Triggered	Refer to Sch 3 Cond 23 above.

Cond	Condition	Status	Evidence
Water Management Plan			
3.27	<p>The Applicant must prepare a Water Management Plan for the HVO North mine to the satisfaction of the Secretary. This plan must be prepared in consultation with DPI Water and the EPA by suitably qualified and experienced persons whose appointment has been approved by the Secretary, and submitted to the Secretary by the end of September 2013 unless otherwise agreed. This plan must include:</p> <p>(a) a Site Water Balance that:</p> <ul style="list-style-type: none"> • includes details of: <ul style="list-style-type: none"> o sources and security of water supply, including contingency planning for future reporting periods; o water use on site; o water management on site, including details of water sharing between neighbouring mining operations; o any off-site water transfers and discharges; o reporting procedures, including comparisons of the site water balance for each calendar year; and • describes the measures that would be implemented to minimise clean water use on site; <p>(b) a Surface Water Management Plan, that includes:</p> <ul style="list-style-type: none"> • detailed baseline data on surface water flows and quality in the waterbodies that could be affected by the development; • a detailed description of the water management system on site, including the: 	Compliant	<p>Two approved WMPs were in effect during the audit period. The current WMP was approved on 16 Oct 2018. The previous WMP was approved on 10 July 2015 and was in effect (with revisions) until the current WMP was approved.</p> <p>The current WMP was approved by the Secretary 16/10/18.</p> <p>Viewed a letter (Appendix A of the current WMP) dated 28 Nov 2017 that confirms the author of the current WMP is a suitably qualified and experienced person in relation to this condition.</p> <p>Viewed letters (Appendix B of the current WMP) dated 6 Dec 2017 and 18 June 2018 which show that HVO consulted with the CL&W and the EPA on the current WMP. The EPA advised that it does not require HVO to consult with it on the WMP. The CL&W provided comments on the draft WMP. Section 3.1 of the current WMP confirms that current WMP was updated to address the CL&W comments.</p> <p>The current WMP contains a Site Water Balance (Section 6), a Surface Water Management Plan (Section 7) and a Groundwater Management Plan (Section 8).</p> <p><u>Previous WMP</u></p> <p>Viewed a letter (Appendix A of the previous WMP) dated 11 July 2013 that confirms the author of the previous WMP is a suitably qualified and experienced person in relation to this condition.</p> <p>Viewed a letter (Appendix B of the previous WMP) dated 30 Apr 2014 which explains that HVO requested an extension to the Sept 2013 deadline for submission of the WMP. The DPI granted an extension to 31 December 2013. HVO submitted the WMP on 20 Dec 2013.</p> <p>The letter presented in Appendix B of the previous WMP also confirms that HVO consulted with the NOW and the EPA between 20 Dec 2013 and 30 Apr 2014. The EPA advised HVO that the EPA does not review WMPs.</p>

Cond	Condition	Status	Evidence
	<ul style="list-style-type: none"> o clean water diversion systems and their final positioning; o erosion and sediment controls; and o water storages; • detailed plans, including design objectives and performance criteria, for: <ul style="list-style-type: none"> o design and management of the final voids; o design and management of the evaporative sink; o design and management of any tailings dams; o ensuring the stability of high walls adjacent to low permeability barriers; o establishment of drainage lines on the rehabilitated areas of the site; and o control of any potential water pollution from the rehabilitated areas of the site; • performance criteria for the following, including trigger levels for investigating any potentially adverse impacts associated with the development: <ul style="list-style-type: none"> o the water management system; o the stability of high walls adjacent to low permeability barriers; o surface water quality of the Hunter River; and o stream and riparian vegetation health of the Hunter River; • a program to monitor: 		<p>The NOW provided comments on the draft WMP on 4 Feb 2014.</p> <p>Viewed letter (Appendix E of the previous WMP) dated 19 April 2014 stating the Secretary's approval of the previous WMP. Note that Section 1 of the previous WMP indicates that the approval letter date was actually 19 May 2014.</p> <p>The previous WMP contains a Site Water Balance (Section 6), a Surface Water Management Plan (Section 7) and a Groundwater Management Plan (Section 8).</p> <p>Viewed the 2016 IEA which confirmed that the previous WMP adequately addressed all of the requirements of this condition. The 2016 IEA recommended corrections to the WMP cross references. The current WMP includes the necessary corrections.</p> <p>Pollution Reduction Program to start double floccing which was successful to stop leakage into CFW55R. Viewed HVO North Void Seepage Study by SLR dated November 2019 which covers this process.</p> <p>Previous exceedances were investigated as per viewed report HVO Groundwater Trigger Review draft document dated May 2018 which includes assessment of bore G2. The report identified a number of recommendations Firstly being to review dam construction details of which there was minimal info. HVO has engaged ATC Williams to undertake a geotech assessment of the dam wall which is soon to commence.</p> <p>Condition of the existing bores was reviewed with downhole cameras which identified no remedial actions needed. Monitoring methodology was also changed to improve data quality by ensuring bores were being purged every monitoring event, this has seen results stabilise (refer to attached Jpeg). As per reporting requirements specified in the WMP trigger exceedances are not notifiable unless requiring mitigating action. As yet no mitigating action is identified for the trigger exceedance at the Parnells bores and results have stabilised to within trigger levels.</p>

Cond	Condition	Status	Evidence
	<ul style="list-style-type: none"> o the effectiveness of the water management system; and o surface water flows and quality, stream and riparian vegetation health in the Hunter River (in so far as it could potentially be affected by the development); and • a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the development. <p>(c) a Groundwater Management Plan, which includes:</p> <ul style="list-style-type: none"> • detailed baseline data on groundwater levels, yield and quality in the region, and privately owned groundwater bores, that could be affected by the development; • groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts; • a program to monitor: <ul style="list-style-type: none"> o groundwater inflows to the open cut mining operations; o the impacts of the development on: <ul style="list-style-type: none"> - the alluvial aquifers, including additional groundwater monitoring bores as required by DPI Water; - the effectiveness of the low permeability barrier; - base flows to the Hunter River; 		

Cond	Condition	Status	Evidence
	<ul style="list-style-type: none"> - any groundwater bores on privately-owned land that could be affected by the development; and - groundwater dependent ecosystems, including the River Red Gum Floodplain Woodland EEC located in the Hunter River alluvium; o the seepage/leachate from water storages, backfilled voids and the final void; • a program to validate and recalibrate (if necessary) the groundwater model for the development, including an independent review of the model every 3 years, and comparison of monitoring results with modelled predictions; and • a plan to respond to any exceedances of the groundwater assessment criteria. <p>The Applicant must implement the approved management plan as approved from time to time by the Secretary.</p>		
Final Void Management Plan			
3.28	<p>At least 5 years before the cessation of open cut coal extraction that will result in the creation of a final void, or as otherwise agreed with the Secretary, the Applicant must prepare a Final Void Management Plan for each void, in consultation with DRE and DPI Water, and to the satisfaction of the Secretary. Each plan must:</p> <p>(a) assess locational, design and future use options;</p>	Not Triggered	<p>End of mining is scheduled for 12/6/25. The requirement has not triggered to date.</p> <p>HVO should commence this work in the next audit period, or as otherwise agreed with DPIE.</p>

Cond	Condition	Status	Evidence
	<p>(b) be integrated with the Water Management Plan and the Rehabilitation Management Plan;</p> <p>(c) assess short term and long term groundwater and other impacts associated with each option; and</p> <p>(d) describe the measures to be would be implemented to avoid, minimise, manage and monitor potential adverse impacts of the final void over time.</p> <p>The Applicant must implement the approved management plan as approved from time to time by the Secretary.</p>		
Fine Reject Management Strategy			
3.28A.	<p>The Applicant must prepare a life of mine fine reject management strategy to the satisfaction of the Secretary. The strategy must:</p> <p>(a) be prepared in consultation with DRE and DPI Water, and submitted to the Secretary for approval by 30 June 2015;</p> <p>(b) describe potential locations and design options for the emplacement of fine reject on site;</p> <p>(c) assess any material short term and long term impacts on surface and groundwater resources associated with each option;</p> <p>(d) describe the measures that would be implemented to avoid, minimise, manage and monitor any adverse impacts of the fine reject emplacements over time;</p> <p>(e) describe how the fine reject emplacements would be rehabilitated and describe potential options for future land uses; and</p> <p>(f) be integrated with the Rehabilitation Management Plan and Agricultural Land Reinstatement Management Plan for the mine.</p> <p>The Applicant must implement the approved management strategy as approved from time to time by the Secretary.</p>	Compliant	<p>Viewed Fine Reject Management Strategy (FRMP) (Sep 2018). Viewed approval letter from the Secretary received 7/12/18.</p> <p>a) Section 1 states initial consultation occurred with DRE on 7/4/15 and NOW on 31/3/15. Simultaneously sent to DPIE, DRE and NOW. DPIE and DRG provided further comments which have been incorporated within this updated version of the FRMP. No comments were provided from NOW.</p> <p>It is noted that the Document History and Status Table of the FRMS provides references to consultation with relevant parties. However, the FRMS does not contain any evidence of consultation with the DRE or DPI Water. It is recommended that future versions of the FRMS include relevant consultation and approval correspondence in an appendix.</p> <p>b) Section 3 and Figure 2 show potential locations and design options for the emplacement of fine reject on site.</p> <p>c) Considered within Appendix A and within any relevant Modifications to this consent.</p> <p>d) Considered within Appendix A and in more detail in existing operating and maintenance manuals for tailings storage facilities.</p> <p>f) The information within this document is consistent with the MOP and ALRMP.</p> <p>Appendix B provides an overview of the Tailings Strategy and timeline. Lists north site further than what they have approval for. HVO currently in the</p>

Cond	Condition	Status	Evidence
			process of updating the strategy.
⁴Temporary Crossing of the Hunter River			
3.29	<p>Prior to the commencement of any work within 40 metres of the Hunter River, a permit under Part 3A of the <i>Rivers and Foreshores Improvement Act 1948</i> must be obtained from the DPI Water. All works must be:</p> <p>(a) undertaken in accordance with the permit application, except as otherwise provided by conditions of the permit;</p> <p>(c) designed and constructed such that the works do not cause sedimentation, erosion or permanent diversion of the Hunter River;</p> <p>(d) constructed in accordance with section 10.8 (Temporary Crossing of the Hunter River), volume 1 of the EIS, dated October 2003; and titled "<i>Hunter Valley Operations – West Pit Extension and Minor Modifications</i>"; and</p> <p>(e) constructed in accordance with the Statement of Environmental Effects, prepared by Coal & Allied, dated August 2001, titled "<i>Proposed relocation of a dragline and electric rope shovel - Ravensworth and Hunter Valley Operations.</i>"</p> <p>Notes:</p> <p>(a) <i>Should Crown land, as defined under the Crown Lands Act 1989, be included in the temporary crossing, there is a requirement to seek approval from the Department of Lands under the Crown Lands Act; and</i></p> <p>(b) <i>Any works on Crown public roads require the Department of Lands' approval and must satisfy the statutory requirements of the Roads Act 1993.</i></p>	Not Triggered	Condition complete. It should be noted that the <i>Rivers and Foreshores Act 1948</i> has been repealed.
FAUNA & FLORA			

Cond	Condition	Status	Evidence
Rehabilitation/Regeneration Strategy			
3.30	The Applicant must not destroy or disturb more than 1 mature river red gum in the river red gum population associated with the Carrington billabong, and ensure that the mining highwall is located at least 150 metres from the standing water line of the billabong.	Compliant	Figure 4 from MOD 2 DPIE Assessment report provides confirmation of distance from the approved highwall location is greater than 150m from the standing water line. The Carrington Billabong is fenced to avoid unintentional access or disturbance to vegetation. Viewed GDP (eGDP-HVO-0062) relating to the only works within the audit period for the Carrington River Red Gum Area (per comms. DB) for the installation of 11 groundwater monitoring bores. GDP lists control measures put in place to avoid any impact to established trees and River Red Gums. Recommend this condition is included in the revised strategy. No mining within at least 150 m of the Billabong occurred in the audit period. Ensure addressed requirements in relation to this condition and including in revised strategy as described in PA 06_0261 Sch 3 Cond 30.
3.31	By 30 June 2007, the Applicant must prepare a comprehensive Rehabilitation and Restoration Strategy for the Carrington billabong and river red gum population, in consultation with DPI Water, and to the satisfaction of the Secretary. This strategy must be prepared by suitably qualified expert/s, and must include: (a) the rehabilitation and restoration objectives for the billabong and associated river red gum population; (b) a description of the short, medium and long term measures that would be implemented to rehabilitate and restore the billabong and associated river red gum population (including measures to address matters which affect the long term health and sustainability of the billabong and river red gums such as surface and ground water supply, and controlling weeds, livestock and feral animals); and	Compliant	A draft 'Rehabilitation and Restoration Strategy' was developed and submitted to the Department of Planning (now DPIE) on 30/06/2007. Section 1.4.3 states that the original Carrington Billabong River Red Gum Rehabilitation and Restoration Strategy was prepared in consultation with NSW Government agencies however was never finalised and was superseded HVO River Red Gum Rehabilitation and Restoration Strategy. The current document: HVO River Red Gum Rehabilitation and Restoration Strategy (EMGA, March 2010). Addresses items a, b and c, as per below, but it is unconfirmed whether the 30 June 2007 deadline was met, however this date has long since passed and therefore delivery date is no longer current for this IEA period. Items addressed in below sections: (a) Section 6 (b) Section 5 (c) Section 6.2 & 7.0 Refer to PA 06_0261 Sch 3 Cond 30

Cond	Condition	Status	Evidence
	<p>(c) detailed assessment and completion criteria for the rehabilitation and restoration of the billabong and associated river red gum population.</p> <p>The Applicant must implement the approved management strategy as approved from time to time by the Secretary.</p> <p>Note. The billabong, standing water line and river red gum population referred to are the billabong, standing water line and endangered population of river red gums located on land owned by the Applicant between the Hunter River and Levee 5, as shown in the figure "Carrington River Red Gums, Billabong and Associated Infrastructure" included in the Carrington Pit Extension Response to Submissions Report, dated May 2006.</p> <p>4 Incorporates DPI Water GTAs</p>		
3.31A	<p>The Applicant must revegetate an area of at least 0.14 hectares using trees representative of the Swamp Oak Floodplain Forest community on land which adjoins existing riparian vegetation and is suitable for the establishment of this community.</p>	Compliant	<p>Minesoils confirmed on site.</p> <p>E-mail (September 2019) sighted with photos of restoration plantings and maintenance.</p>
3.32	<p>By 30 June 2007, the Applicant must prepare a conceptual Landscape and Rehabilitation Management Strategy, in consultation with affected agencies, to the satisfaction of the Secretary. The strategy must:</p> <p>(a) include objectives for landscape management and rehabilitation of the site and a justification for the proposed strategy;</p> <p>(b) present a conceptual plan for landscape management and rehabilitation of the site;</p> <p>(c) be integrated with the relevant requirements of the Mining Operations Plan;</p>	Compliant	<p>Minesoils reviewed this condition:</p> <p>Condition is from 2007 and outside the audit period.</p> <p>The current MOP states there is a Landscape and Rehabilitation Management Plan (Section 3.2.6). However, this is covered within the Mining Operations Plan.</p> <p>Current MOP includes at section:</p> <ol style="list-style-type: none"> Section 5 contains landscape management units and their relative objectives; Plan 2, 3A, 3B & 3C illustrate the rehabilitation and mining throughout the MOP period; Plan is now included within the MOP. Section 7.2 describes the proposed rehabilitation activities during the MOP period to achieve objectives;

Cond	Condition	Status	Evidence
	<p>(d) describe the measures that would be implemented to achieve the objectives (including an indicative timetable for mine closure);</p> <p>(e) include proposals to offset the flora and fauna impacts of the development (including proposals resulting from condition 31 and 31A above), and an outline of how the strategy would integrate with existing and planned corridors of native vegetation in areas surrounding the development; and</p> <p>(f) outline how the proposed strategy would be integrated with the landscape management and rehabilitation of the other operations within Hunter Valley Operations (both north and south of the Hunter River) and other coal mines in the vicinity.</p> <p>The Applicant must implement the approved management strategy as approved from time to time by the Secretary.</p>		<p>e) Section 3.2.6 states the flora and fauna impacts are managed through the Biodiversity Management Plan with Table 18 including rehabilitation objectives that ensure transport corridors for fauna; and</p> <p>f) Table 18 showing rehabilitation objectives includes taking into consideration of how to integrate landscape with surrounding mines.</p>
Strategic Study Contribution			
3.33	If, during the development, the Department or the OEH commissions a strategic study into the regional vegetation corridor stretching from the Wollemi National Park to the Barrington Tops National Park, then the Applicant must contribute a reasonable amount, up to \$10,000, towards the completion of this study.	Not Triggered	HVO has not been approached to provide funding within audit period (AS per comms).
Operating Conditions			
3.34	The Applicant must salvage and reuse as much material as possible from the land that will be mined, such as soil, seeds, tree hollows, rocks and logs. Cleared vegetation must be reused or recycled to the greatest extent practicable. No burning of cleared vegetation must be permitted. Reuse options including removing millable logs, recovering fence posts, mulching and chipping unusable vegetation waste for on-site use are to be implemented	Compliant	<p>Minesoils confirmed on site inspection</p> <ul style="list-style-type: none"> Salvage and re-use material (soil, seeds, tree hollows, logs) (See Plate 17), spread over rehabilitation areas. Cleared vegetation reused (mill logs, recover fence posts, mulching, chipping). No evidence of burning. <p>Sighted GDP example. In regard to disturbance it was sighted that pasture</p>

Cond	Condition	Status	Evidence
			area materials go to pasture area rehabilitation and tree areas to tree area rehabilitation. MOP Section 7.7
Flora and Fauna Management			
3.35	<p>The Applicant must prepare procedures for the management of flora and fauna for the development. These procedures must:</p> <p>(a) provide details on:</p> <ul style="list-style-type: none"> • delineating areas of disturbance; • protecting areas outside of the disturbance areas; • identifying when pre-clearance surveys are required for fauna; • determining the best time to clear vegetation to avoid nesting/breeding activities of threatened fauna; • capturing and releasing fauna; • relocating bat roosts; • salvaging habitat resources and collecting seed; • controlling weeds in regeneration/rehabilitation areas; and • controlling access to the regeneration/rehabilitation areas; <p>(b) describe how the land in regeneration areas would be revegetated;</p> <p>(c) describe how the mined areas would be rehabilitated for grazing and biodiversity values;</p> <p>(d) identify actions to minimise the potential impacts of the development on threatened fauna;</p> <p>(e) describe how the performance of the revegetation/rehabilitation strategies would be monitored</p>	Compliant	<p>Mine Soils completed a review of the current MOP (2019-2021) North states the biodiversity at HVO is managed in accordance with:</p> <ul style="list-style-type: none"> • Integrated Biodiversity Management Plan (Integrated BMP); • River Red Gum Rehabilitation and Restoration Strategy; • Landscape and Rehabilitation Management Strategy; and • Vegetation Clearance Plan (2016) <p>a) This condition is met through the following items:</p> <ul style="list-style-type: none"> • Section 3.2.2 of the Integrated BMP states that clearance limits will be identified on plans and on the ground (using markers, or signage or fencing). • Section 3.2.1 of the Integrated BMP states that vegetation clearing is avoided during breeding season of identified threatened fauna species that may reside in the particular area proposed to be disturbed. • Section 2.3 of the Vegetation Clearance Plan provides the timing of appropriate nesting/breeding seasons of identified threatened fauna species. • Section 3.3 of the Vegetation Clearance plan provides information when a pre-clearance survey is required. • Section 5.3 of the Flora and Fauna Procedure (March 2019) provides information on fauna removal and Appendix B illustrating the procedure flowchart for tree felling. • Section 3.3.2 of the Integrated BMP states the aim of the rehabilitation is to provide additional habitat for threatened species including installation of artificial roosting / nesting boxes however does not provide a relevant procedure to complete this. <p>Recommend updating relevant procedural document to</p>

Cond	Condition	Status	Evidence																																
	<p>over time including, as a minimum, the parameters in Table 18; and</p> <p>(f) identify who is responsible for monitoring, reviewing, and implementing the procedures.</p> <p>The Applicant must submit a copy of these procedures to the Secretary for approval within 6 months of the date of this consent. The Applicant must implement the approved management procedures as approved from time to time by the Secretary.</p> <table border="1"> <caption>Table 16: Parameters and Units of Measure for Fauna and Flora Monitoring</caption> <thead> <tr> <th>Parameter</th> <th>Units of measure</th> </tr> </thead> <tbody> <tr> <td>Density of vegetation</td> <td>Plants/m²</td> </tr> <tr> <td></td> <td>Understorey</td> </tr> <tr> <td></td> <td>Ground cover</td> </tr> <tr> <td>Diversity of flora</td> <td>Species/m²</td> </tr> <tr> <td>Age/maturity of flora</td> <td>Vegetation height/diameter/form</td> </tr> <tr> <td>Vegetation health</td> <td>-</td> </tr> <tr> <td>Disturbance</td> <td>Weeds/m²</td> </tr> <tr> <td></td> <td>Erosion</td> </tr> <tr> <td></td> <td>Feral animals</td> </tr> <tr> <td></td> <td>Stock</td> </tr> <tr> <td>Density of fauna</td> <td>Fauna (Avian/Mammals/Reptiles-Amphibians)/m²</td> </tr> <tr> <td>Diversity of fauna</td> <td>Species/m²</td> </tr> <tr> <td>Density of fauna habitat</td> <td>Hollow-bearing trees/nesting sites/ logs/dams, etc.</td> </tr> <tr> <td></td> <td>Habitat Complexity Score</td> </tr> <tr> <td>Ecosystem Function</td> <td>Landscape Function Analysis</td> </tr> </tbody> </table> <p><i>Note: The requirements of condition 35 may be satisfied within the Rehabilitation Management Plan required under Condition 62C of Schedule 4.</i></p>	Parameter	Units of measure	Density of vegetation	Plants/m ²		Understorey		Ground cover	Diversity of flora	Species/m ²	Age/maturity of flora	Vegetation height/diameter/form	Vegetation health	-	Disturbance	Weeds/m ²		Erosion		Feral animals		Stock	Density of fauna	Fauna (Avian/Mammals/Reptiles-Amphibians)/m ²	Diversity of fauna	Species/m ²	Density of fauna habitat	Hollow-bearing trees/nesting sites/ logs/dams, etc.		Habitat Complexity Score	Ecosystem Function	Landscape Function Analysis		<p>include detail on relocating bat roosts.</p> <ul style="list-style-type: none"> Section 3.2.2 of the Integrated BMP states habitat resources and collection of viable seed will be undertaken when available. Section 3.2.5 of the Integrated BMP provides information on weed management within HVO. <p>b & c) MOP Section 6 and 7 provides an explanation of rehabilitation procedures</p> <p>d) Ground Disturbance Surveys, pre-clearance surveys ensure potential impacts of the development are minimised.</p> <p>e) Section 5.2 of the MOP provides the rehabilitation objectives for the site. As per the note in this condition Table 16 is satisfied within the MOP.</p> <p>f) Section 6 of the Flora and Fauna Procedure.</p> <p>Viewed the Flora and Fauna Procedure (March 2019) which provides more detail procedures and actions required at HVO regarding new disturbance in line with this condition.</p> <p>Recommend updating clause (e) to refer to the correct Table number at next modification.</p>
Parameter	Units of measure																																		
Density of vegetation	Plants/m ²																																		
	Understorey																																		
	Ground cover																																		
Diversity of flora	Species/m ²																																		
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	Habitat Complexity Score																																		
Ecosystem Function	Landscape Function Analysis																																		
Annual Review																																			
3.36	<p>The Applicant must:</p> <p>(a) review the performance of the flora & fauna management procedures annually, and, if necessary,</p> <p>(b) revise these documents to take into account any recommendations from the annual review.</p>	Compliant	<p>Minesoils viewed E-mail during site visit confirming review has taken place in 2017, 2018, and 2019.</p> <p>Demonstrated updated F&F mgt procedures has been adopted from annual review recommendations.</p>																																
<p>⁵ABORIGINAL CULTURAL HERITAGE</p> <p><i>Note: The Applicant is required to obtain consent from the OEH under the National Parks and Wildlife Act 1974 to destroy Aboriginal sites and objects on the site. The OEH has issued General Terms of Approval for the sites listed in condition 37.</i></p>																																			

Cond	Condition	Status	Evidence
West Pit Extension – Consents to Destroy			
3.37	<p>The Applicant must obtain consent from OEH to destroy the following sites:</p> <ul style="list-style-type: none"> • WPE 1 • WPE 2 • WPE 3 • WPE 4 • WPE 5 • WPE 6 • WPE 7 • WPE 8 • WPE 9 • WPE 10 • WPE 11 • 37-2-1964 • 37-2-1965 • 37-2-1966 • 37-2-1967 • 37-2-0038 • 37-2-0144 • 37-2-0894 • 37-2-0896 • 37-2-0805 <p>⁵Incorporates OEH GTAs.</p>	Compliant	<p>Consent verified within last audit (2016 IEA) for the following sites:</p> <ul style="list-style-type: none"> • 2005, HVO West Pit s90 #2086 • 2007, HVO Carrington s90 #2547 • 2007, HVO West Pit s90 #2804 <p>Viewed ERM West Pit Salvage Report (2005). Consent from OEH was given to destroy the following sites:</p> <ul style="list-style-type: none"> • WPE 1 – Salvaged – s90#2086 • WPE 2– Salvaged – s90#2086 • WPE 3 -Salvaged – s90#2086 • WPE 4- Salvaged – s90#2086 • WPE 5- Salvaged – s90#2086 • WPE 6- Salvaged – s90#2086 • WPE 7- Salvaged – s90#2086 • WPE 8- Salvaged – s90#2086 • WPE 9- Salvaged – s90#2086 • WPE 10- Salvaged – s90#2086 • WPE 11- Salvaged – s90#2086 • 37-2-1964 - Salvaged – s90#2086 • 37-2-1965 – Not cultural - s90#2086 • 37-2-1966 -Salvaged – s90#2086 • 37-2-1967 Salvaged – s90#2086 • 37-2-0038 – Salvaged 1976 – viewed AHIMS site card • 37-2-0144 – Salvaged 1976– viewed AHIMS site card • 37-2-0894 -Salvaged – s90#2086 • 37-2-0896 -Salvaged – s90#2086 • 37-2-0805 (HVO ref- CUM42) – No entry ARCGIS – Site Card dated 13/2/97
West Pit Extension – Salvage			

Cond	Condition	Status	Evidence
3.38	Before making application for section 90 consents under NP&W Act, the Applicant must prepare a salvage program for the sites listed in condition 37 in consultation with the OEH and Aboriginal communities, and to the satisfaction of the OEH.	Compliant	Only works completed during the audit period was to update fencing and weed management. These sites have been inspected by the CLWD.
3.39	<p>The Applicant must obtain consent under the <i>National Parks and Wildlife Act 1974</i> to destroy the following sites:</p> <ul style="list-style-type: none"> • 37-2-0145 • 37-2-0147 • 37-2-0148 • 37-2-0523 • 37-2-0524 • 37-2-0525 • 37-2-0526 • 37-2-0527 • 37-2-0528 • 37-2-0562 • 37-2-0777 • 37-2-0778 • 37-2-0779 • 37-2-0780 • 37-2-0781 • 37-2-0782 • 37-2-0783 • 37-2-0784 • 37-2-0785 • 37-2-0786 • 37-2-2078 (C1) • 37-2-2079 (C2) • 37-2-2080 (C3) • 37-5-0494 (C4) • 37-2-2083 (C8) • 37-2-2084 (C9) • 37-2-0787 • 37-2-0788 • 37-2-0789 • 37-2-0790 • 37-2-0791 • 37-2-0792 • 37-2-0793 • 37-2-0794 • 37-2-0795 • 37-2-0796 • 37-2-0895 • 37-2-1865 • 37-2-1866 • 37-2-1867 • 37-2-1868 • 37-2-1869 • 37-2-1870 • 37-2-1871 • 37-2-1872 • IF1 • 37-2-2085 (C10) • 37-2-1962 (CM45) • 37-2-1963 (CM46) • 37-2-1504 (CM1) • 37-2-1505 (CM2) • 37-2-1522 (CM19) • TD • TG • 37-2-1504 • 37-2-1522 • 37-2-1535 • 37-2-1864 • 37-2-1874 • 37-2-1875 • 37-2-1876 • 37-2-1962 • 37-2-1963 • 37-5-0061 • 37-2-1861 • 37-2-1862 • 37-2-1873 • 37-2-1860 • 37-5-0131 • 37-3-0286 • 37-5-0061 • 37-1-0399 • 37-2-1535 (CM32) • 37-2-2754 • 37-2-2755 • 37-2-2756 • 37-2-2757 	Compliant	<p>No consent sought during the audit period.</p> <p>Confirmed the remaining sites to date are:</p> <ul style="list-style-type: none"> • 37-2-0145 (Upper Emu Creek); • 37-2-0528 (Site Q); • 37-2-0562 (T/L3 Plashette); • 37-2-0791 (HVO-338,339,360,361) • 37-2-0794 (HVO 195-221, 230-236, 1699) • 37-2-0796 (HVO 182-193, 575-608) • 37-2-1504 (CM-1) • 37-2-1522 (CM-19) • 37-2-1535 (CM-32) • 37-2-1875 (CM-55) • 37-2-2754 (HVO-1121) • 37-2-2755 (HVO-1122) • 37-2-2756 (HVO-1123) • 37-2-2757 (HVO-1124) <p>Confirmed the other listed sites had the appropriate permits for salvaging.</p>
Aboriginal Heritage Site 37-2-1877 (CM-CD1)			
3.40	<p>Mining operations and associated activities in the Carrington West Wing area are not permitted to be carried out within 20 metres of Aboriginal heritage site 37-2-1877 (CM-CD1) and the Older Stratum as shown on the plan in Appendix 5.</p> <p>Note: for clarification purposes, Condition 40 of Schedule 4 does not prohibit heritage surveys and studies to be undertaken within CM-CD1 or within 20 metres of CM-CD1 and the Older Stratum.</p>	Not Triggered	Carrington West Wing has not been developed within the audit period. See Plate 19 showing no disturbance in CM-CD1 area and good fencing and signage in place.
3.40A	The Applicant must ensure that mining operations (including blasting) and associated activities do not cause any impact to Aboriginal heritage site 37-2-1877 (CM-CD1) and the Older Stratum.	Compliant	AHMP (Aug 2019) Provision 7 and Schedule 15.2 provides a plan of management for these sites which includes blasting impacts. There were no incidents nor any unauthorised disturbance caused to cultural heritage sites at HVO during the audit period as per relevant AR's.

Cond	Condition	Status	Evidence
			Mining has not been developed within the Carrington West Pit to date.
Heritage Management Plan			
3.41	<p>The Applicant must prepare a Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Secretary;</p> <p>(b) be prepared in consultation with OEH and the Aboriginal stakeholders (in relation to the management of Aboriginal heritage values);</p> <p>(c) be submitted to the Secretary for approval by the end of June 2013, unless the Secretary agrees otherwise;</p> <p>(d) include the following for the management of Aboriginal Heritage:</p> <ul style="list-style-type: none"> • a detailed plan of management for Aboriginal heritage site 37-2-1877 (CM-CD1) including a description of the measures that would be implemented to protect, monitor and manage the site from mining operations and associated activities; • a description of the measures that would be implemented for: <ul style="list-style-type: none"> - managing heritage items on the site, including any proposed archaeological investigations and/or salvage measures - managing the discovery of any human remains or previously unidentified Aboriginal objects on site; - maintaining and managing reasonable access for Aboriginal stakeholders to heritage items on site; 	Compliant	<p>The North Heritage Management Plan (AHMP) was approved by the Secretary dated 23/8/19.</p> <p>a) Provision 1 includes a letter of endorsement of persons to prepare the AHMP dated 5/6/13.</p> <p>b) Viewed email from Nicole Davis (OEH) dated 14/11/19 which requested to updated the care and control agreement numbers, No other comments.</p> <p>c) Request for an extension until 31/12/13 was approved by the Secretary in letter dated 5/6/13. The AHMP was approved 12/2/14.</p> <p>d) Schedule 15 and Figure 1 provide the information to satisfy this condition. Field work programs took place in Feb 2019, June 2019, Sept 2019, Oct 2019, Jan 2018, June 2018, March-April 2017, July 2017, December 2016. Compliance inspections (including attendance of RAPs) were conducted on the following:</p> <ul style="list-style-type: none"> • 7 December 2018 which deemed that all sites had been managed in conformance with AHMP requirements (Section 6.5.3 2018 Annual Review) • December 2017 which deemed that all sites have been managed in conformance with the ACHMP requirements (Section 6.6.3 2017 Annual Review) • 29-31 October 2019, viewed draft 2019 Compliance Audit Inspection report by Arrow Heritage dated November 2019 which did not identify any major issues but included recommendations to manage these sites. <p>There were no incidents nor any unauthorised disturbance caused to cultural heritage sites at HVO during the audit period as per relevant Annual Reviews.</p> <p>Refer to PA 06_0261 for further discussion on management and consultation.</p> <p>A reduction from twice yearly compliance inspections to an annual</p>

Cond	Condition	Status	Evidence
	<ul style="list-style-type: none"> - ongoing consultation with the Aboriginal stakeholders on the conservation and management of Aboriginal cultural heritage both on-site and within any Aboriginal heritage conservation areas; and - ensuring any workers on site receive suitable heritage inductions prior to carrying out any development on site, and that suitable records are kept of these inductions; and • a strategy for the storage of any heritage items salvaged on site, both during the development and in the long term. <p>The Applicant must implement the approved management plan as approved from time to time by the Secretary.</p>		<p>inspection was proposed and presented to the CHWG meeting held on the 12/9/2019 (Viewed meeting minutes) for review and comment prior to submission to the DPE. No adverse feedback was received from CHWG members or the DPE in relation to the updated inspection regime proposal. This update was accepted within the revised AHMP and included in Section 6.24.</p>
3.41A	<p>Prior to disturbance by mining, the Applicant must ensure that the scarred tree 37-2-2080 (C3) is removed and relocated to a site where it will be protected from future development, in consultation with the Wonnarua Tribal Council, and to the satisfaction of the Secretary.</p> <p><i>Note: In conditions 37– 41A, all seven-figure numbers refer to Aboriginal site listings in OEH's Aboriginal Heritage Information Management System (AHIMS). All other numbers are site numbers used by the Applicant in on-site Aboriginal heritage studies. Site numbers beginning with C or CM are associated with the Carrington Pit, as shown in Fig 5.1 of Annex G of the Carrington Pit Extended Statement of Environmental Effects.</i></p>	Not Triggered	Completed (Verified within previous 2014 IEA)
Trust Fund Contribution			

Cond	Condition	Status	Evidence
3.42	Before carrying out the development, or as agreed otherwise by the Secretary , the Applicant must contribute \$20,000 to the Hunter Aboriginal Cultural Heritage Trust Fund for further investigations into Aboriginal cultural heritage, as defined by the Trust Deed.	Not Triggered	Completed (Verified within previous 2016 IEA)
TRAFFIC & TRANSPORT			
New Access Intersection to Hunter Valley Loading Point			
<i>Note: The Applicant requires Council approval under the Roads Act 1993 for the new road entry from Liddell Station Road to the Hunter Valley Loading Point.</i>			
3.43	⁶ The Applicant must design, construct and maintain for the duration of this consent, the proposed new access intersection from Liddell Station Road to the Hunter Valley Loading Point to the satisfaction of the Council.	Not Triggered	Completed (Verified within previous 2016 IEA)
Road Closure			
<i>Note: The Applicant requires MSC approval under the Roads Act 1993 prior to closing a section of Pikes Gully Road.</i>			
3.44	Within 12 months of the date of this consent, unless otherwise agreed by the Secretary , the Applicant is to complete the relevant requirements to enable the section of Pikes Gully Road situated in the Muswellbrook local government area to be closed as a public road.	Not Triggered	Completed (Verified within previous 2104 IEA)
3.45	The Applicant must not blast within 500 metres of a public road while the road is open to the public. Any road closures with respect of blasting must be subject to a plan of management approved by Council.	Compliant	No permanent road closures during the audit period. Lemington Road is frequently closed during the audit period as per conditions of Road Closure Approval with Singleton Council. HVO has a Road Closure Approval – Lemington Road from Singleton Council valid until 30/6/19. Recommend re-approval of Road Closure Approval / Plan.
Lemington Road			
3.46	The Applicant must reimburse Council for any road upgrading works undertaken on Lemington Road, to a maximum amount of \$30,000.	Not Triggered	Completed (Verified previous 2016 IEA). No request in audit period (AS pers comms).

Cond	Condition	Status	Evidence
3.47	The Applicant must alter or cease mining operations if driver visibility or traffic safety on Lemington Road is adversely affected by dust, in accordance with the requirements of Council.	Compliant	No occurrence in audit period (AS pers comms). One complaint from a motorist dated 27/5/19 at 10.30am with a site inspection occurring at 9.30 which confirmed no equipment was running and no dumping visible. Demonstrated through trigger responses and TARP process.
3.48	The Applicant must be responsible for the full cost of the maintenance of the Lemington Road deviation undertaken for the Carrington Pit until March 2011, in accordance with the standards and requirements of Council. 6 Incorporates Council GTA	Not Triggered	Completed (Verified previous 2016 IEA).
Intersection of Lemington Road and the Golden Highway			
3.49	Within 2 years of the date of this consent, the Applicant must upgrade the intersection of the Golden Highway (SH 27) and Lemington Road to a type "BAR" intersection with a sealed shoulder to the satisfaction of the RMS.	Not Triggered	Completed (Verified previous 2016 IEA).
Road Safety Audit			
3.49A	(a) By 31 December 2006, the Applicant must prepare and submit a road safety audit to the RMS and Council for all public roads used by mine employees and service vehicles in the vicinity of the development, including an audit of the existing intersections of all mine access roads with public roads; (b) any improvement to meet accepted road safety standards required by the relevant road manager (ie. the RMS or Council) for public roads as a result of impacts related to the development as identified by the audit must be undertaken at the Applicant's cost and to the satisfaction of the road manager; (c) any dispute between the Applicant and the relevant road manager in relation to the audit findings and the	Not Triggered	Completed (Verified previous 2016 IEA). No maintenance of line marking and sign posting was in the audit period (AS pers comms).

Cond	Condition	Status	Evidence
	<p>requirements of the road manager for improvements of public roads is to be determined by the Secretary; and any maintenance of line marking and sign posting required by the relevant road manager at existing intersections of mine access roads with public roads must be undertaken at the Applicant's cost and to the satisfaction of the road manager.</p>		
Coal Haulage			
3.50	<p>⁷The Applicant must ensure that spillage of coal from coal haulage vehicles is minimised and that sediment-laden runoff from roads is effectively managed, to the satisfaction of the Secretary. Measures that must be implemented include:</p> <p>(a) covering all loads where loaded coal trucks leave the site and enter public roads;</p> <p>(b) ensuring the gunwhales of all loaded trucks are clean of coal;</p> <p>(c) providing effective wheel wash facilities at all coal load and unload facilities prior to vehicles entering public roads; and</p> <p>(d) sweeping, at regular intervals and at the completion of campaign hauls, public roads used for the transportation of coal.</p> <p>⁷ This may include the use of sediment dams or the incorporation of runoff into the mine water management system.</p>	Compliant	<p>Viewed example email dated 23/7/19 which shows a receipt of invoice from street sweeping.</p> <p>Viewed photo of Daracon truck covered.</p> <p>Viewed email from Daracon dated 27/9/19 which included a safety observation form dated 7/9/19 confirming the transporting trucks were covered and confirmed no loose product was observed to fall. Viewed SWMSW4 coal haulage by Daracon which includes checking covers and parasitic coal.</p> <p>Site visit on 3/12/19 did not show coal on visible sections of public road.</p>
3.51	<p>The Applicant must enter into an agreement with Council for the maintenance of the sections of Pikes Gully Road and Liddell Station Road whilst used by the Applicant for the haulage of coal, and during the period the roads are owned by Council.</p>	Compliant	<p>Viewed agreement dated 2015. We note this expires 31/1/20 and recommend should be urgently renewed to maintain compliance.</p> <p>Item 5 lists the works that HVO must undertake with no annual fee to Council required.</p>
Monitoring			

Cond	Condition	Status	Evidence
3.52	The Applicant must maintain and include in each Annual Review records of the: (a) amount of coal transported from the site each year; (b) amount of coal received from Hunter Valley Operations south of the Hunter River; (c) amount of coal hauled by road to the Hunter Valley Loading Point; (d) amount of coal hauled by road to the Newdell Loading Point; (e) amount of coal hauled by road from the Newdell Loading Point to the Ravensworth coal Terminal; (f) amount of coal hauled by road from the Hunter Valley Loading Point to the Ravensworth Coal Terminal; and (g) number of coal haulage truck movements generated by the development.	Compliant	This condition is fulfilled by Table 12: Methods of Coal Transportation within the relevant Annual Reviews. Examples for 2017-2018 include: a) 2018 – 12.9Mt, 2017 – 14.7Mt b) 2018 – 12.07Mt, 2017 – 10.91Mt c) 2018 – Nil, 2017 – Nil d) 2018 – 1.6Mt, 2017 – 1.5Mt e) 2018 – Nil, 2017 – Nil f) 2018 – Nil, 2017 – Nil g) 2018 – 40,085, 2017 – 51,630
VISUAL IMPACT			
Visual Amenity			
3.53	The Applicant must implement measures to mitigate visual impacts including: (a) design and construction of development infrastructure in a manner that minimises visual contrasts; and (b) progressive rehabilitation of mine waste rock emplacements (particularly outer batters), including partial rehabilitation of temporarily inactive areas.	Compliant	a) Site inspection showed infrastructure and plant to be generally minimising visual contrasts. b) See response to Sch 3 Cond 62D confirming progressive rehabilitation was viewed onsite inspection.
3.54	The Applicant must plant trees to provide an effective visual screen from Lemington Road in the vicinity of the Belt Line Road and adjacent to the Mitchell pit area. The plan for this tree planting is to: (a) provide for tree planting within 2 years of the date of this consent; (b) achieve an 80% survival rate by the 5th year;	Compliant	a) Completed in prior IEA b) Not Triggered - No new tree planting has taken place since this time with a 45% survival confirmed in a 2011 assessment (confirmed in 2016 IEA) . HVO has acquired all private property potentially impacted by the view on Lemington Road since that time. c) No correspondence or review has been sought from DRE or the

Cond	Condition	Status	Evidence
	(c) be submitted to DRE and Secretary for review and approval; and (d) provide an assessment of whether visual bunds are required to supplement the vegetative visual screen.		Secretary since 2011. No response from DPIE or DRG available. Recommend confirming visual screen purpose has changed and hence its value. Conduct consultation with DPIE if deemed no further plantings required due to changed visual sensitivity of location with acquisition of relevant properties.
Lighting Emissions			
3.55	The Applicant must take all practicable measures to mitigate off-site lighting impacts from the development.	Compliant	Refer to PA 06_0261 Sch 3 Cond 50
3.56	All external lighting associated with the development must comply with <i>Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting</i> .	Compliant	The MOP (2019-21) North Section 3.2.9 states visual and lighting impacts are managed in accordance with the relevant consent conditions. Refer to PA 06_0261 Sch 3 Cond 50
WASTE MINIMISATION			
3.57	The Applicant must minimise the amount of waste generated by the development to the satisfaction of the Secretary .	Compliant	Refer to PA 06_0261 Sch 3 Cond 55
HAZARDS MANAGEMENT			
Spontaneous Combustion			
3.58	The Applicant must : (a) take the necessary measures to prevent, as far as is practical, spontaneous combustion on the site; and (b) manage any spontaneous combustion on-site to the satisfaction of DRE .	Compliant	Current MOP (2019-2021) Section 3.3.2 provides a summary of material prone to spontaneous combustion. Viewed Spontaneous Combustion Principal Hazard Management Plan dated August 2019 and includes a section on risk management. No incidents have been recorded within audit period relating to spontaneous combustion.
Dangerous Goods			
3.59	The Applicant must ensure that the storage, handling, and transport of: (a) dangerous goods is done in accordance with the relevant <i>Australian Standards</i> , particularly <i>AS1940</i> and <i>AS1596</i> , and the <i>Dangerous Goods Code</i> ; and (b) explosives are managed in accordance with the requirements of DRE .	Compliant	Refer to PA 06_0261 Sch 3 Cond 58 Viewed internal SLR Hydrocarbon audit report dated Dec 2018 which identified a number of potential compliance issues. These issues have been logged within CMO as actions. Of note is confirmation that the bund at the HVO workshop (see Plate 20) meets relevant standards. Viewed non-compliance relating to an emergency stop which was viewed in CMO which was completed 19/7/19 as an example. No queries from DRG in relation to dangerous goods in audit period (AS

Cond	Condition	Status	Evidence										
			pers comms).										
BUSHFIRE MANAGEMENT													
3.60	The Applicant must : (a) ensure that the development is suitably equipped to respond to any fires on-site; and (b) assist the Rural Fire Service and emergency services as much as possible if there is a fire onsite during the development.	Compliant	Refer to PA 06_0261 Sch 3 Cond 59										
3.61	The Applicant must ensure that the Bushfire Management Plan for the site, is to the satisfaction of Council and the Rural Fire Service.	Not Compliant	Refer to PA 06_0261 Sch 3 Cond 60 Recommend including correspondence from Council and Rural Fire Service relating to acceptance of satisfaction of the Bushfire MP.										
REHABILITATION													
Rehabilitation Objectives													
3.62	The Applicant must rehabilitate the site to the satisfaction of DRE. The rehabilitation must be generally in accordance with the proposed rehabilitation strategy described by the documents listed in Condition 2 of Schedule 3 (and depicted conceptually in the final landform plans in Appendices 6 and 7) and the objectives in Table 17. <i>Table 17: Rehabilitation Objectives</i> <table border="1"> <thead> <tr> <th>Area/Domain</th> <th>Rehabilitation Objectives</th> </tr> </thead> <tbody> <tr> <td>Mine site (as a whole), including the final void</td> <td>Safe, stable & non-polluting</td> </tr> <tr> <td>Carrington West Wing revised proposed extension area</td> <td>Reinstatement of Rural Land Capability agricultural land values to be measured as: 65.0 hectares of Class II and 65.0 hectares of Class III</td> </tr> <tr> <td>Surface infrastructure</td> <td>To be decommissioned and removed, unless DRE agrees otherwise</td> </tr> <tr> <td>Community</td> <td>Ensure public safety Minimise the adverse socio-economic effects associated with mine closure</td> </tr> </tbody> </table> <i>Note: The Carrington West Wing revised proposed extension area is shown in Appendix 5.</i>	Area/Domain	Rehabilitation Objectives	Mine site (as a whole), including the final void	Safe, stable & non-polluting	Carrington West Wing revised proposed extension area	Reinstatement of Rural Land Capability agricultural land values to be measured as: 65.0 hectares of Class II and 65.0 hectares of Class III	Surface infrastructure	To be decommissioned and removed, unless DRE agrees otherwise	Community	Ensure public safety Minimise the adverse socio-economic effects associated with mine closure	Not Triggered	MOP section 4.3 Minesoils advises that site inspection confirmed Project Approval and MOP rehabilitation are generally consistent. MOP restarted in early 2019. Grazing licenses commenced. In regard to rehabilitation classification changes, this now reflects rehabilitation not yet sown with final mix of species is considered Growth Medium Development until final seed mix is applied. Sighted rehabilitation tracking sheet which records the stages, changes and targets for rehabilitation areas. The rehabilitation on site varies in age and quality and is significantly impacted by rainfall over recent years. In general, the quality of rehabilitation is adequately progressing to post mining targets. There are some areas which require intervention to bring the rehabilitation back on track to targets , however this is a small percentage of the site, and mainly caused by erosion of soil material. Recommended that soil be re-spread over these areas rather than alternative ameliorants given the location is typically on the steeper slopes. It is important however that surface water management and surface preparation maximises
Area/Domain	Rehabilitation Objectives												
Mine site (as a whole), including the final void	Safe, stable & non-polluting												
Carrington West Wing revised proposed extension area	Reinstatement of Rural Land Capability agricultural land values to be measured as: 65.0 hectares of Class II and 65.0 hectares of Class III												
Surface infrastructure	To be decommissioned and removed, unless DRE agrees otherwise												
Community	Ensure public safety Minimise the adverse socio-economic effects associated with mine closure												

Cond	Condition	Status	Evidence
			<p>opportunity for infiltration and diversion of surface flows. Drainage structures were inspected and appear to be constructed and maintained in accordance with the Blue Book. Soil stockpiles are managed well, sown with a mix of natives and ground covers as soon as shaped, less than 3m, and located in close proximity to where the material will be re-spread (See Plate 21). The intended post mining land use is considered suitable for the grassland areas to support grazing, with some areas now under grazing leases, indicating the land will be managed as a grazing enterprise whilst being monitored for impacts. Weed management remains a priority on site, especially Galenia and over time Rhodes Grass. It was noted on site that areas of heavy infestation of Roly Poly were present and will require attention (See Plate 14). HVO implement a Community Development Plan (CDP) which is relevant and consistent with socio-economic conditions and context (Section 1.4 North MOP). Refer to Sch 3 Cond 63. This is included within HVO's Community Stakeholder Engagement Strategy which is currently in the final stages of a review (per comms DB).</p>
Operating Conditions			
3.62A	<p>The Applicant must:</p> <p>(a) develop a detailed soil management protocol that identifies procedures for</p> <ul style="list-style-type: none"> • comprehensive soil surveys prior to soil stripping; • assessment of top-soil and sub-soil suitability for mine rehabilitation; and • annual soil balances to manage soil handling including direct respreading and stockpiling; <p>(b) maximise the salvage of suitable top-soils and sub-soils and biodiversity habitat components such as bush rocks,</p>	Compliant	<p>a) Sighted and reviewed procedures (records from last 3 years) for each item as soil assessment and annual soil balances. 2018 Annual Topsoil Reconciliation. Noted that rock raking provides rock areas for some habitat. Soil Management being developed to incorporate soil testing at pre-strip. HVO Ag land reinstatement Mgt Plan and HVO ALRMP Soil Mgt Plan viewed by Minesoils.</p> <p>b) Site inspection verified that salvage of soil resources was maximised on site through GDP process and procedures for stockpiling and use on rehabilitation (See Plate 17).</p> <p>c) MOP Section 3.3.3.</p> <p>d) The Water Management Plan ensures no dirty water can drain from</p>

Cond	Condition	Status	Evidence
	<p>tree hollows and fallen timber for rehabilitation of disturbed areas within the site and for enhancement of biodiversity offset areas;</p> <p>(c) ensure that coal reject or any potentially acid forming interburden materials must not be emplaced at elevations within the pit shell or out of pit emplacement areas where they may promote acid or sulphate species generation and migration beyond the pit shell or out of pit emplacement areas; and</p> <p>(d) ensure that no dirty water can drain from an out of pit emplacement area to any offsite watercourse or to any land beyond the lease boundary.</p>		<p>out of pit emplacement to offsite water course. Confirmed during site inspection that these dams are in place and operating as per design.</p>
Progressive Rehabilitation			
3.62B	<p>The Applicant must carry out rehabilitation of the site progressively, that is, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim rehabilitation strategies must be employed when areas prone to dust generation cannot yet be permanently rehabilitated.</p> <p><i>Note: It is accepted that some parts of the site that are progressively rehabilitated may be subject to further disturbance at some later stage in the development.</i></p>	Compliant	<p>Onsite inspection confirmed areas of rehabilitation in line with MOP plans. Also noting as soon as small areas are ready, rehabilitation activities are undertaken to minimise delay in establishment.</p> <p>MOP Section 2.2.9.</p> <p>Also, Annual Reviews confirm the areas undertaken in last 3 years indicating progressive rehabilitation.</p>
Rehabilitation Management Plan			
3.62C	<p>The Applicant must prepare a Rehabilitation Management Plan for the HVO North mine to the satisfaction of DRE. This plan must:</p> <p>(a) be prepared in consultation with the Department, DPI Water, OEH, Council and the CCC;</p> <p>(b) be submitted to DRE by the end of September 2013;</p>	Compliant	<p>The Rehabilitation Management Plan for HVO North is the MOP. The MOP addresses the conditions as follows:</p> <p>Viewed letter dated 14/1/19 from DPIE which allows HVO to waive the requirement to consult with all agencies/authorities other than DPIE. Condition satisfied in 2013 and not relevant to this IEA. Current MOP dated Jan 2019.</p>

Cond	Condition	Status	Evidence
(c)	be prepared in accordance with any relevant DRE guideline;		(a) Section 1 DRE Guideline <i>ESG3: Mining Operations Plan (MOP) Guidelines</i>
(d)	include an Agricultural Land Reinstatement Management Plan;		(b) <i>HVO Agricultural Land Reinstatement Management Plan</i> has been prepared.
(e)	include detailed performance and completion criteria for evaluating the achievement of the rehabilitation objectives in Table 17 and the overall rehabilitation of the site, and triggering remedial action (if necessary);		(c) <i>Section 6</i>
(f)	include proposals to offset the flora and fauna impacts of the development (including proposals resulting from condition 31 above), and an outline of how the plan would integrate with existing and planned corridors of native vegetation in areas surrounding the development;		(d) <i>A Biodiversity Offset Strategy</i> has been prepared and implemented. Also Plans 2 and 4 of MOP.
(g)	describe the measures that would be implemented to ensure compliance with the relevant conditions of this consent, and address all aspects of rehabilitation including mine closure, final landform and final land use;		(e) Sections 4.1 to 4.5
(h)	outline how the proposed plan would be integrated with the landscape management and rehabilitation of the other operations within Hunter Valley Operations (both north and south of the Hunter River) and other coal mines in the vicinity;		(f) Section 3.3.6
(i)	include interim rehabilitation where necessary to minimise the area exposed for dust generation;		(g) Section 7.2
(j)	include a program to monitor, independently audit and report on the effectiveness of the measures, and progress against the detailed performance and completion criteria; and		(h) Section 8
(k)	build to the maximum extent practicable on the other management plans required under this consent.		(i) This MOP
			Viewed letter from Resources Regulator dated 26/2/19 requiring an updated MOP to be provided with the approval of the MOP being restricted to 30/7/20 to allow for submission of information required by the Resources Regulator. HVO is encouraged to review the opportunity to combine the HVO North and South MOP's into the one MOP to increase efficiency and reduce administrative burden.

Cond	Condition	Status	Evidence
	The Applicant must implement the approved management plan as approved from time to time by the Secretary.		
Agricultural Land Reinstatement Management Plan			
3.62D	<p>The Agricultural Land Reinstatement Management Plan required under Condition 62C of Schedule 4 is intended to ensure that the alluvial lands are restored to a productive capacity at least equivalent to their pre-mining state and are able to be managed using techniques and equipment common to management of equivalent lands in the district. The plan must:</p> <p>(a) be prepared in consultation with DPI and to the satisfaction of the Secretary;</p> <p>(b) be prepared in accordance with any relevant DPI guideline;</p> <p>(c) include detailed performance and completion criteria for evaluating the performance of the rehabilitation of the Carrington West Wing revised proposed extension area, and triggering remedial action (if necessary);</p> <p>(d) include a long-term monitoring programme on the success of reinstating alluvial lands, which must:</p> <ul style="list-style-type: none"> • assess a comprehensive suite of indicators of productivity and environmental sustainability (such as soil settling, soil profile development, other soil characteristics, water transmissivity and soil water availability, agricultural productivity, fertilizer needs, weeds and pests) over an extended period (a minimum of 20 years); • compare the performance of the reinstated alluvial lands with a reference site; and • make monitoring results publicly available. 	Compliant	<p>The Agricultural Land Reinstatement Management Plan contained in Appendix A of the MOP addresses these conditions in these sections:</p> <p>a) Chapter 4</p> <p>b) Section 2.4 states what has been used in preparation. No evidence of using relevant DPI guidelines for the plan outline however the plan is underpinned by agricultural land classes defined by NSW DPI.</p> <p>c) Chapter 5, Table 5.1 Success Criteria for Reinstatement of Class II and III Land Capability Lands.</p> <p>d) Chapter 7</p> <ul style="list-style-type: none"> • Sections 7.3 to 7.8 • Ongoing – Evidence sited on site • Not Triggered, but to be introduced in long term monitoring program • AEMR's and publicly available conference presentations <p>e) Chapter 9</p>

Cond	Condition	Status	Evidence
	<p>(e) in accordance with Condition 4(h) of Schedule 6 provide for reviews of progress against the plan every 3 years (unless otherwise agreed by the Secretary after completion of the second review) and for a final review by the end of 2033.</p> <p><i>Note: The Carrington West Wing revised proposed extension area is shown in Appendix 5.</i></p>		
MINE EXIT STRATEGY			
3.63	<p>Within 5 years of the date of this consent, the Applicant must work with the Council and MSC to investigate the minimisation of adverse socio-economic effects of a significant reduction in local employment levels and closure of the development at the end of its life.</p>	Not Compliant	<p>No evidence available to confirm consultation with SSC and MSC. However, the previous audit (2016 IEA) deemed compliant and CDF continues to operate with a development of Enterprise Facilitation Program (although requires update with new ownership).</p>
SCHEDULE 4			
ADDITIONAL PROCEDURES FOR AIR QUALITY AND NOISE MANAGEMENT			
Notification of Landowners/Tenants			
4.1	<p>By the end of September 2013, the Applicant must:</p> <p>(a) notify in writing any remaining private owners of:</p> <ul style="list-style-type: none"> • the land listed in Table 1 of schedule 4 that they have the right to require the Applicant to acquire their land at any stage during the development; • any residence on the land listed in Table 1 of schedule 4 that they have the right to request the Applicant to ask for additional noise and/or air quality mitigation measures to be installed at their residence at any stage during the development; and • any privately-owned land within 2 kilometres of the approved open cut mining pit/s that they are entitled to ask for an inspection to establish the baseline condition of any buildings or structures on 	Compliant	<p>Completed as per 2013 IEA.</p> <p>During the audit period, new tenants receive this information as part of the tenancy agreement. Glencore corporate has taken over the residential management of properties.</p> <p>HVO look after the rural side of things.</p> <p>Bailey's real estate cover the day to day roles of the tenants (AS pers comms). Viewed two examples of signed tenant agreements with Real Estate Section 3 provides information to the tenant relating to relevant development consent conditions with Appendix A containing the Mine Dust and You fact sheet.</p>

Cond	Condition	Status	Evidence
	<p>their land, or to have a previous property inspection report updated;</p> <p>(b) notify the tenants of any mine-owned land of their rights under this approval; and</p> <p>(c) send a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the owners and/or existing tenants of any land (including mine-owned land) where the predictions in the documents listed in condition 2 of schedule 3 identify that dust emissions generated by the development are likely to be greater than any air quality criteria in schedule 4 at any time during the life of the development.</p>		
4.2	<p>Prior to entering into any tenancy agreement for any land owned by the Applicant that is predicted to experience exceedances of the recommended dust and/or noise criteria, or for any of the land listed in Table 1 purchased by the Applicant, the Applicant must:</p> <p>(a) advise the prospective tenants of the potential health and amenity impacts associated with living on the land, and give them a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time);</p> <p>(b) advise the prospective tenants of the rights they would have under this approval; and</p> <p>(c) request the prospective tenants consult their medical practitioner to discuss the air quality monitoring data and prediction and health impacts arising from this information,</p> <p>to the satisfaction of the Secretary.</p>	Compliant	Viewed a copy of the Land access licence agreement which includes a copy of the NSW Health fact sheet entitled "Mine Dust and You" and the relative information to satisfy this condition.
4.3	As soon as practicable after obtaining monitoring results showing	Not Triggered	Not Triggered.

Cond	Condition	Status	Evidence
	<p>(a) an exceedance of any criteria in schedule 4, the Applicant must:</p> <ul style="list-style-type: none"> • notify each affected landowner and/or tenant of the land (including the tenants of any mine-owned land) in writing of the exceedance; and • provide each affected party with regular monitoring results until the development is again complying with the relevant criteria; and <p>(b) an exceedance of the air quality criteria in schedule 4, the Applicant must additionally provide each affected party with:</p> <ul style="list-style-type: none"> • a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time), if not recently provided; and • monitoring data in an appropriate format such that the party's medical practitioner can assist them in making an informed decision on the health risks associated with continued occupation of the property, <p>to the satisfaction of the Secretary.</p>		
Independent Review			
4.4	<p>If an owner of privately-owned land considers the development to be exceeding the criteria in Schedule 4, then he/she may ask the Secretary in writing for an independent review of the impacts of the development on his/her land.</p> <p>If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision, the Applicant must:</p> <p>(a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to:</p>	Not Triggered	Not requested in audit period (AS pers comms).

Cond	Condition	Status	Evidence
	<ul style="list-style-type: none"> • consult with the landowner to determine his/her concerns; • conduct monitoring to determine whether the development is complying with the relevant impact assessment criteria in Schedule 4; and • if the development is not complying with these criteria then: <ul style="list-style-type: none"> - determine if more than one mine is responsible for the exceedance, and if so the relative share of each mine regarding the impact on the land; - identify the measures that could be implemented to ensure compliance with the relevant criteria; and <p>(b) give the Secretary and landowner a copy of the independent review.</p>		
4.5	<p>4, then the Applicant may discontinue the independent review with the approval of the Secretary.</p> <p>If the independent review determines that the development is not complying with the criteria in Schedule 4, and that the development is primarily responsible for this non-compliance, then the Applicant must:</p> <p>(a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent person, and conduct further monitoring until the development complies with the relevant criteria; or</p> <p>(b) secure a written agreement with the landowner to allow exceedances of the relevant impact assessment criteria, to the satisfaction of the Secretary.</p>	Not Triggered	Not triggered. See above.

Cond	Condition	Status	Evidence
	<p>If the independent review determines that the development is not complying with the relevant acquisition criteria in Schedule 4, and that the development is primarily response for this noncompliance, then upon receiving a written request from the landowner, the Applicant must acquire all or part of the landowner's land in accordance with the procedures in Conditions 7 and 8 below.</p>		
4.6	<p>If the independent review determines that the relevant criteria are being exceeded, but that more than one mine is responsible for this exceedance, then together with the relevant mine/s the Applicant must:</p> <p>(a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent person, and conduct further monitoring until there is compliance with the relevant criteria; or</p> <p>(b) secure a written agreement with the landowner and other relevant mine/s to allow exceedances of the relevant impact assessment criteria, to the satisfaction of the Secretary.</p> <p>If the independent review determines that the development is not complying with the relevant acquisition criteria in Schedule 4, but that more than one mine is responsible for the exceedance, then upon receiving a written request from the landowner, the Applicant must acquire all or part of the landowner's land on as equitable a basis as possible with the relevant mine/s in accordance with the procedures in Conditions 7 and 8 below.</p>	Not Triggered	Not triggered. See above.
Land Acquisition			
4.7	<p>Within 3 months of receiving a written request from a landowner with acquisition rights, the Applicant must make a binding written offer to the landowner based on:</p>	Not Triggered	See Sch 3 Cond 1 stating all properties with acquisition rights are mine owned.

Cond	Condition	Status	Evidence
	<p>(a) the current market value of the landowner's interest in the land at the date of this written request, as if the land was unaffected by the development, having regard to the:</p> <ul style="list-style-type: none"> • existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and • presence of improvements on the land and/or any approved building or structure which has been physically commenced on the land at the date of the landowner's written request, and is due to be completed subsequent to that date; <p>(b) the reasonable costs associated with:</p> <ul style="list-style-type: none"> • relocating within the Singleton or Muswellbrook local government areas, or to any other local government area determined by the Secretary; and • obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and <p>(c) reasonable compensation for any disturbance caused by the land acquisition process.</p> <p>However, if at the end of this period, the Applicant and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Secretary for resolution.</p> <p>Upon receiving such a request, the Secretary will request the President of the NSW Division of the Australian Property Institute (the API) to appoint a qualified independent valuer to:</p> <ul style="list-style-type: none"> • consider submissions from both parties; • determine a fair and reasonable acquisition price for the land and/or the terms upon which the land 		

Cond	Condition	Status	Evidence
	<p>is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above;</p> <ul style="list-style-type: none"> • prepare a detailed report setting out the reasons for any determination; and • provide a copy of the report to both parties. <p>Within 14 days of receiving the independent valuer's report, the Applicant must make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer's determination.</p> <p>However, if either party disputes the independent valuer's determination, then within 14 days of receiving the independent valuer's report, they may refer the matter to the Secretary for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer's determination. Following consultation with the independent valuer and both parties, the Secretary will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer's report, the detailed report disputing the independent valuer's determination, and any other relevant submissions.</p> <p>Within 14 days of this determination, the Applicant must make a binding written offer to the landowner to purchase the land at a price not less than the Secretary's determination.</p> <p>If the landowner refuses to accept the Applicant's binding written offer under this condition within 6 months of the offer being made, then the Applicant's obligations to acquire the land shall cease, unless the Secretary determines otherwise.</p>		
4.8	The Applicant must pay all reasonable costs associated with the land acquisition process described in Condition 7 above, including the costs associated with obtaining Council approval for	Not Triggered	Not triggered. See above.

Cond	Condition	Status	Evidence
	any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.		
SCHEDULE 5			
ENVIRONMENTAL MANAGEMENT, MONITORING, AUDITING & REPORTING			
ENVIRONMENTAL MANAGEMENT			
Environmental Management Strategy			
5.1	<p>If the Secretary requires, the Applicant must prepare an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:</p> <p>(a) be submitted to the Secretary for approval within 6 months of the Secretary requiring preparation of the strategy by notice to the Applicant;</p> <p>(b) provide the strategic framework for the environmental management of the development;</p> <p>(c) identify the statutory approvals that apply to the development;</p> <p>(d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;</p> <p>(e) describe the procedures that would be implemented to:</p> <ul style="list-style-type: none"> • keep the local community and relevant agencies informed about the operation and environmental performance of the development; • receive, handle, respond to, and record complaints; • resolve any disputes that may arise during the course of the development; • respond to any non-compliance; and • respond to emergencies; and • (f) include: 	Compliant	<p>Viewed letter from the Secretary dated 8/1/19 that approved the EMS (Jan 2019) (Appendix A).</p> <p>b) Viewed Section 1 of the 2019 EMS which outlines the environmental Strategy.</p> <p>c) Viewed Section 2 of the 2019 EMS provides the statutory approvals.</p> <p>d) Viewed Section 3 of the 2019 EMS identifies role, responsibility, authority and accountability of all key personnel for HVO.</p> <p>e) As per:</p> <ul style="list-style-type: none"> • Sections 6 of the EMS provides information on HVO's Community and Stakeholder Engagement Policy and how to keep stakeholders informed; • Section 7 of the EMS provides details on how to receive, handle, respond to, and record community complaints. • Section 8 of the EMS also provides information on how to resolve any disputes that may arise. • Section 11 of the EMS provides details on responses to any non-compliances; and • Section 11.1 of the EMS informs on how to respond to emergencies.

Cond	Condition	Status	Evidence
	<ul style="list-style-type: none"> • copies of any strategies, plans and programs approved under the conditions of this consent; and • a clear plan depicting all the monitoring required to be carried out under the conditions of this consent. <p>The Applicant must implement any Environmental Management Strategy as approved from time to time by the Secretary.</p>		
Management Plan Requirements			
5.2	<p>The Applicant must ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:</p> <p>(a) detailed baseline data;</p> <p>(b) a description of:</p> <ul style="list-style-type: none"> • the relevant statutory requirements (including any relevant approval, licence or lease conditions); • any relevant limits or performance measures/criteria; and • the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures; <p>(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;</p> <p>(d) a program to monitor and report on the:</p> <ul style="list-style-type: none"> • impacts and environmental performance of the development; and • effectiveness of any management measures (see (c) above); <p>(e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing</p>	Compliant	<p>The following management plans were reviewed by technical specialists and deemed compliant with this condition:</p> <ul style="list-style-type: none"> • Air Quality and Greenhouse Gas Management Plan (refer to discussion in Sch 3 Cond 6); • Noise Management Plan (refer to discussion in Sch 3 Cond 10); • Blasting Management Plan (refer to discussion in Sch 3 Cond 19); • Water Management Plan (refer to discussion in Sch 3 Cond 27); • Rehabilitation Management Plan (refer to discussion in Sch 3 Cond 62C); • River Red Gum Rehabilitation & Restoration Strategy (refer to discussion in Sch 3 Cond 31); <p>Refer to PA 06_0261 Sch 3 Cond 1A which provides an overview of combined management plans.</p> <p>The remaining HVO North Management Plans have been reviewed below: <u>Aboriginal Heritage Management Plan (August 2019):</u></p> <p>Refer to further discussion in Sch 3 Cond 41.</p> <p>a) Section 4 provides a summary of previous investigations;</p> <p>b) Provision 6.29 provides the statutory permits and consents required for this plan;</p> <p>c) Provision 6.6 provides a summary of management of Aboriginal objects;</p> <p>d) Schedule 12 provides details on monitoring of these sites;</p> <p>e) Provision 6.27 provides information on procedural breaches and urgent relief;</p> <p>f) Provision 6.24 provides requirements of annual compliance audits which</p>

Cond	Condition	Status	Evidence
	<p>impacts reduce to levels below relevant impact assessment criteria as quickly as possible;</p> <p>(f) a program to investigate and implement ways to improve the environmental performance of the development over time;</p> <p>(g) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> • incidents; • complaints; • non-compliances with statutory requirements; and • exceedances of the impact assessment criteria and/or performance criteria; <p>(h) a protocol for periodic review of the plan; and</p> <p>(i) a document control table that includes version numbers, dates when the management plan was prepared and reviewed, names and positions of people who prepared and reviewed the management plan, a description of any revisions made and the date of the Secretary's approval.</p> <p><i>Note: The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i></p>		<p>provide recommendations to improve performance.</p> <p>g) Provision 6.27 provides information on procedural breaches and urgent relief, no information available regarding complaint management.</p> <p>h) Section 4 states it may be revised from time to time with the endorsement of HVO, CHWG and OEH and DPIE.</p> <p>i) Document control table is found on cover page. <u>Fine Reject Management Plan (September 2018):</u> Refer to further discussion in Sch 3 Cond 28.</p> <p>a) Section 1 & 2 provides a background of the of understanding to date.</p> <p>b) Section 1 provides a summary of relevant requirements.</p> <p>c) Section 1 provides a summary of measures to comply with relevant requirements.</p> <p>d) Appendix A describes summary of operating and maintenance on site.</p> <p>e) Not relevant.</p> <p>f) Section 4 provides a summary of studies previously undertaken to identify opportunities to reduce storage requirements for tailings by alternate disposal methods.</p> <p>g) Not relevant.</p> <p>h) Section 1 states this document will require review and approval prior to closure.</p> <p>i) Document control table at the start of the document.</p>
Relationships Between Management Plans			
5.2A	With the agreement of the Secretary, the Applicant may combine any strategy, plan, program or Annual Review required by this consent with any similar strategy, plan, program or Annual Review required for HVO South and Mt Thorley Warkworth mines or any other adjoining operation in common ownership or management.	Compliant	Refer to PA 06_0261 Sch 5 Cond 1B
Updating & Staging Submission of Strategies, Plans or Programs			
5.3	To ensure the strategies, plans or programs under this consent are updated on a regular basis, and that they incorporate any	Not Triggered	Refer to PA 06_0261 Sch 5 Cond 1C

Cond	Condition	Status	Evidence
	<p>appropriate mitigation measures to improve the environmental performance of the development, the Applicant may at any time submit revised strategies, plans or programs to the Secretary for approval. With the agreement of the Secretary, the Applicant may also submit any strategy, plan or program required by this consent on a staged basis.</p> <p>With the agreement of the Secretary, the Applicant may revise any strategy, plan or program approved under this consent without undertaking consultation with all parties nominated under the applicable conditions in this consent.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> • <i>While any strategy, plan or program may be submitted on a staged basis, the Applicant will need to ensure that the existing operations associated with the development are covered by suitable strategies, plans or programs at all times.</i> • <i>If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage/s of the development to which the strategy, plan or program applies; the relationship of this stage/s to any future stages; and the trigger for updating the strategy, plan or program.</i> 		
Revision of Strategies, Plans & Programs			
5.4	<p>Within 3 months of the:</p> <p>(a) submission of an incident report under condition 7 below;</p> <p>(b) submission of an Annual Review under condition 9 below; or</p> <p>(c) submission of an audit report under condition 10 below; and</p>	Not Compliant	<p>Viewed Management Plan Register excel spreadsheet (191227 Management Plan Review Register v2) which shows the relevant reviews of the management plans for the audit period which is used to assist in complying with this condition. Viewed CMO database screenshot which provides a recurring CMO action to check and trigger a management review on a monthly basis.</p> <p>Although revision of plans occurred during the audit period, HVO has not met every occurrence in this condition.</p>

Cond	Condition	Status	Evidence
	<p>(d) approval of a modification to this consent, the Applicant must review and if necessary revise, the strategies, plans and programs required under this consent, to the satisfaction of the Secretary.</p> <p>Within 6 weeks of conducting any such review, the Applicant must advise the Secretary of the outcomes of the review, and provide any documents that have been revised to the Secretary for review and approval.</p> <p><i>Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and to incorporate any recommended measures to improve the environmental performance of the development.</i></p>		
Adaptive Management			
5.5	<p>The Applicant must assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in Schedule 4. Any exceedance of these criteria and/or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.</p> <p>Where any exceedance of these criteria and/or performance measures has occurred, the Applicant must, at the earliest opportunity:</p> <p>(a) take all reasonable and feasible measures to ensure that the exceedance ceases and does not recur;</p> <p>(b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and</p> <p>(c) implement remediation measures as directed by the Secretary, to the satisfaction of the Secretary.</p>	Compliant	<p>See response to Sch 5 Cond 7 regarding incident management overview.</p> <p>Air quality – Sch 3 Cond 19</p> <p>Noise – Sch 3 Cond 4A</p> <p>Blasting – Sch 3 Cond 12 &13</p>
COMMUNITY CONSULTATIVE COMMITTEE			

Cond	Condition	Status	Evidence
5.6	<p>The Applicant must operate a Community Consultative Committee (CCC) for the development, to the satisfaction of the Secretary. This CCC must be operated in general accordance with the <i>Community Consultative Committee (CCC) Guidelines for State Significant Projects</i> (Department of Planning, 2016, or its latest version)</p> <p>Notes:</p> <ul style="list-style-type: none"> The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent. In accordance with the guideline, the committee should be comprised of an independent chair and appropriate representation from the Applicant, Council, and the local community. With the approval of the Secretary, the CCC may be combined with any similar CCC for the HVO Mine Complex 	Compliant	Refer to PA 06_0261 Sch 5 Cond 8
REPORTING			
Incident Reporting			
5.7	<p>The Applicant must immediately notify the Secretary and any other relevant agencies of any incident. Within 7 days of the date of the incident, the Applicant must provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.</p>	Compliant	<p>2019 None to date within audit period.</p> <p>2018 Water - The Newdell fire water tank was found to be overflowing on 11 May 2018. This triggered the PIRMP. Viewed CMO 1493135 lodged by Peter Arnold which confirmed the updates to the computer logic. Viewed CMO 1493135 lodged by Peter Arnold which updated procedure training. Viewed Health, Safety & Environment Communication Sign off sheet dated 30/8/18 with the topic relating to Newdell Fire tank incident with relevant employee's signatures. The manual valves were made redundant by removing the Truck Fill point and isolating the Truck Wash from the fire water system. Viewed example of completed training record.</p>

Cond	Condition	Status	Evidence
			See response to Sch 3 Cond 20 2017 Water – See response to Sch 3 Cond 20 2016 (Nov -Dec) Water – See response to Sch 3 Cond 20
Regular Reporting			
5.8	The Applicant must provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this consent.	Compliant	Refer to PA 06_0261 Sch 5 Cond 3
Annual Review			
5.9	By the end of March each year, or other timing as may be agreed by the Secretary, the Applicant must submit a report to the Department reviewing the environmental performance of the development to the satisfaction of the Secretary. This review must: <ul style="list-style-type: none"> (a) describe the development (including any rehabilitation) that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year; (b) include a comprehensive review of the monitoring results and complaints records of the development over the previous calendar year, which includes a comparison of these results against the: <ul style="list-style-type: none"> • relevant statutory requirements, limits or performance measures/criteria; • requirements of any plan or program required under this consent; • monitoring results of previous years; and • relevant predictions in the documents listed in condition 2 of Schedule 3; 	Compliant	Refer to PA 06_0261 Sch 5 Cond 4

Cond	Condition	Status	Evidence
	<p>(c) identify any non-compliance over the past calendar year, and describe what actions were (or are being) taken to ensure compliance;</p> <p>(d) identify any trends in the monitoring data over the life of the development;</p> <p>(e) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and</p> <p>(f) describe what measures will be implemented over the current calendar year to improve the environmental performance of the development.</p> <p>The Applicant must ensure that copies of the Annual Review are submitted to Council and are available to the Community Consultative Committee (see condition 6 of Schedule 6) and any interested person upon request.</p>		
INDEPENDENT ENVIRONMENTAL AUDIT			
5.10	<p>Prior to 1 December 2019, and every three years thereafter, unless the Secretary directs otherwise, the Applicant must commission, commence and pay the full cost of an Independent Environmental Audit of the development. This audit must:</p> <p>(a) be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;</p> <p>(b) include consultation with the relevant agencies and the CCC;</p> <p>(c) assess the environmental performance of the development and whether it is complying with the relevant requirements in this consent and any relevant EPL and/or Water Licences (including any assessment, plan or program required under these approvals);</p>	Compliant	Refer to PA 06_0261 Sch 5 Cond 5

Cond	Condition	Status	Evidence
	<p>(d) review the adequacy of strategies, plans or programs required under the abovementioned approvals;</p> <p>(e) recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals; and</p> <p>(f) be conducted and reported to the satisfaction of the Secretary.</p> <p><i>Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Secretary.</i></p>		
5.11	<p>Within 12 weeks of commencing each audit, or as otherwise agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of any measures proposed to address the recommendations.</p>	Compliant	Refer to PA 06_0261 Sch 5 Cond 6
ACCESS TO INFORMATION			
5.12	<p>By 31 December 2016, unless otherwise agreed by the Secretary, the Applicant must:</p> <p>(a) make the following information publicly available on its website:</p> <ul style="list-style-type: none"> • the documents listed in condition 2 of Schedule 3; • current statutory approvals for the development; • approved strategies, plans or programs required under the conditions of this consent; • a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs; • a complaints register, updated quarterly; 	Compliant	Refer to PA 06_0261 Sch 5 Cond 9

Cond	Condition	Status	Evidence
	<ul style="list-style-type: none"> the Annual Reviews (over the last 5 years); any independent environmental audit, and the Applicant's response to the recommendations in any audit; any other matter required by the Secretary; and (b) keep this information up-to-date, to the satisfaction of the Secretary.		
APPENDIX 1: SCHEDULE OF LAND			
APPENDIX 2: LANDOWNERSHIP PLAN & RESIDENTIAL RECEIVERS			
APPENDIX 2A: PROJECT LAYOUT PLAN			
APPENDIX 3: NOISE COMPLIANCE ASSESSMENT			
Applicable Meteorological Conditions			
Ap 3.1	The criteria in Table 9 and 10 apply under all meteorological conditions except: <ul style="list-style-type: none"> a) during periods of rain or hail; b) when average wind speed at microphone height exceeds 5 m/s; c) when wind speeds greater than 3 m/s are measured at 10 m above ground level; or d) during temperature inversion conditions greater than 3°C/100 m. 	Compliant	Refer to PA 06_0261 Ap4 A1
Determination of Meteorological Conditions			
Ap 3.2	Except for wind speed at microphone height, the data to be used for determining meteorological conditions must be those recorded by the meteorological station located on the site.	Compliant	Refer to PA 06_0261 Ap4 A2
Compliance Monitoring			
Ap 3.3	Attended monitoring is to be used to evaluate compliance with the relevant conditions of this approval.	Compliant	Refer to PA 06_0261 Ap4 A3
Ap 3.4	Unless otherwise agreed with the Secretary, this monitoring is to be carried out in accordance with the relevant requirements for reviewing performance set out in the NSW <i>Industrial Noise Policy</i>	Not Compliant	Refer to PA 06_0261 Ap4 A4

Cond	Condition	Status	Evidence
	(as amended or replaced from time to time), including the requirements relating to: <ul style="list-style-type: none"> a) monitoring locations for collection of representative noise data; b) meteorological conditions during which collection of noise data is not appropriate; c) equipment used to collect noise data, and conformation with relevant Australian Standards for such equipment; and d) modifications to noise data collected, including the exclusion of extraneous noise and/or penalties for modifying factors apart from adjustments for duration. 		

Table D
Hunter Valley Operations North
Statement of Commitments (HVO North- Carrington Pit Extended DA 450-10-2003)

Ref	Assessment Requirement	2019 Status	2019 Evidence
Compliance with the EA			
Surface Water			
1	Ongoing implementation of CNA EMS Procedures 7 – Water Management, HVO North Site Water Management Plan and CNA Erosion and Sediment Control Plan	Compliant	<p>The HVO North Site Water Management Plan and CNA Erosion and Sediment Control Plan current documents. These documents have been superseded by the previous and current WMPs.</p> <p>Surface water management, including erosion and sediment control, is adequately addressed in Section 7 of the current WMP.</p> <p>It is recommended that this compliance requirement is updated or removed during a future modification for consistency and in order to ensure future compliance is achievable.</p>
2	Dam 9N (refer to Figures 22 and 23 in Annex D) will be relocated to the south-east of its current position and continue to receive pit water;	Compliant	<p>Viewed Table C3 of the 2016 IEA which states that the 2011 IEA confirmed that Dam 9N was relocated in 2007.</p> <p>Viewed Section 5.3 of the WMP which confirms that Dam 9N receives pit water.</p>
3	Sedimentation dam 12N will be destroyed;	Compliant	<p>Viewed Table C3 of the 2016 IEA which states that the 2014 IEA confirmed that Dam 12N was decommissioned and destroyed prior to 2009.</p> <p>Viewed the WMP which does not show or list Dam 12N as part of the current water management infrastructure.</p>
4	Sedimentation dam 13N will be enlarged following closure;	Not Triggered	<p>Not triggered as mine closure did not occur during the audit period.</p> <p>It is noted that Table C3 of the 2016 IEA states that the 2014 IEA confirmed that Dam 13N was decommissioned and destroyed during the construction of Carrington Levee 5. Recommended that this is updated at next modification.</p>
5	A number of additional temporary sedimentation dams will be constructed to manage runoff from the final landform;	Not Triggered	<p>Not triggered as mine closure and establishment of the final landform did not occur during the audit period.</p>

Ref	Assessment Requirement	2019 Status	2019 Evidence
6	Runoff from surrounding undisturbed catchments will continue to be diverted to minimise contributions to the mine water system;	Compliant	Viewed Section 7 of the WMP which confirms that runoff from undisturbed catchments is diverted around the disturbed mine site catchments.
7	Continue to capture and treat all runoff from disturbed areas;	Compliant	Viewed Section 7 of the WMP which confirms that runoff from disturbed catchments is captured and collected in sediment dams/basins for settlement of suspended sediments prior to discharge from site.
8	Ensure that new banks, channels and similar works are constructed to convey runoff from areas above the dams and ensure they do not cause damage to, or interfere with the stability or water quality of existing water courses;	Compliant	Viewed Section 7.3 of the WMP which confirms that site drainage works will be constructed in a manner that minimises surface water impacts, such as watercourse erosion and deterioration of receiving surface water quality. The performance of these works is monitored in accordance with the Surface Water Monitoring Program described in Appendix C of the WMP.
9	Monitoring of water quality parameters pH, EC and NFR at Dam 12N at monthly intervals during periods of sustained runoff	Not Triggered	Refer to the response to compliance requirement 3 which confirms that Dam 12N was decommissioned and destroyed prior to 2009. Hence, water quality monitoring at Dam 12N was not required during the current audit period.
10	Compare measurements to measured water quality in the water course below the Dam 12N;	Not Triggered	Refer to the response to compliance requirement 3 which confirms that Dam 12N was decommissioned and destroyed prior to 2009. Hence, water quality monitoring at Dam 12N was not required during the current audit period.
11	Future dams will be designed with criteria considered appropriate to local conditions and micro climate influences;	Not Triggered	Noted. It is understood that no new dams were constructed during the audit period. Viewed Section 5.3 of the WMP which confirms that large water storage dams will be designed with sufficient freeboard to prevent overtopping during storm events. Viewed Section 5.5 of the WMP which confirms that sediment control dams will be designed and constructed in accordance with the guideline <i>Managing Urban Stormwater Volume 2E: Mines and Quarries</i> . This design will include consideration of local conditions and climate influences.
12	Monitoring procedures as outlined in CNA EMS Procedure 1.10 – Monitoring and Measurement, will be continued and will	Compliant	Viewed Table C3 of the 2016 IEA which states that the current WMP surface water quality monitoring commitments supersede the EMS

Ref	Assessment Requirement	2019 Status	2019 Evidence
	include fortnightly measurement of the volume of water pumped from the mine pit(s) and monthly monitoring of mine pit(s) water quality by measurement of pH and EC in the receiving dam(s).		procedure. The WMP surface water monitoring program (WMP Appendix C) includes quarterly monitoring of stored water quality for EC and pH. It is recommended that this compliance requirement is updated or removed during a future modification for consistency and in order to ensure future compliance is achievable.
Groundwater			
13	Ongoing implementation of CNA EMS Procedure 7 – Water Management and HVO North Site Water Management Plan	Compliant	The HVO North Site Water Management Plan has been superseded by the current WMP. The management of groundwater is addressed in the current WMP. Viewed Table C3 of the 2016 IEA which states that the current WMP groundwater quality monitoring commitments supersede the EMS procedure. Viewed Section 1.3 of the WMP which confirms that the WMP describes procedures required to ensure compliance with the water management and monitoring approval conditions. It is recommended that this compliance requirement is updated or removed during a future.
14	Groundwater quality monitoring, as outlined in CNA EMS Procedure 1.10 – Monitoring and Measurement, should be continued and include; <ul style="list-style-type: none"> • Bimonthly monitoring of basic water quality parameters (pH and EC) in nominated existing piezometers • Six-monthly measurements of TDS and major ion speciation of water samples from nominated existing piezometers; • Graphical plotting of data and identification trend lines and statistics including mean and standard deviation quarterly; and 	Compliant	Viewed Table C3 of the 2016 IEA which states that the WMP groundwater quality monitoring commitments supersede the EMS procedure. Viewed the Groundwater Management Plan presented in Appendix D of the WMP. The groundwater monitoring program includes quarterly/6-monthly monitoring of pH and EC and 6-monthly to annual monitoring of a more comprehensive analytical suite that includes TDS and major ions. Viewed the 2016 AR, 2017 AR and 2018 AR and monthly monitoring data which all provide graphical plotting of data (pH and EC), discussion of trends in the data (including trends due to climate conditions and mining activities) and key statistics. It is recommended that this compliance requirement is updated or

Ref	Assessment Requirement	2019 Status	2019 Evidence
	<ul style="list-style-type: none"> Comparison of trends with rainfall and any other identifiable processes that may influence such trends. 		removed during a future modification.
15	Additional monitoring procedures will include: <ul style="list-style-type: none"> Modification to monitoring programs will occur as required to ensure appropriate data is collected; Installation of additional bores if required; 	Compliant	Viewed Section 9 of the WMP which describes the process for modifying the surface water and groundwater monitoring programs, including the installation of additional bores where necessary.
16	<ul style="list-style-type: none"> Formal review of depressurisation and comparison of responses with aquifer model predictions annually; Expert review will be undertaken by a suitably qualified hydrogeologist if measured pit seepage and depressurisation exceeds predicted seepage and depressurisation and Annual reporting (including all water level and water quality data) to DoP in an agreed format. 	Compliant	Viewed Section 8 of the WMP which describes a program of review and assessment of groundwater predictions and impacts. Viewed the 2016 AR, 2017 AR and 2018 AR which include a formal review of groundwater levels and model predictions.
Noise and Vibration			
17	Ongoing implementation of CAN, EMS Procedure 9 – Noise	Compliant	NMP describes noise criteria, management and compliance monitoring that is consistent with relevant approvals.
18	Ongoing noise monitoring which currently includes directional noise monitoring	Compliant	NMP Appendix B Section 2 indicates directional noise monitors are installed at Knodlers Lane, Moses Crossing, Maison Dieu, Jerrys Plains and Long Point. NMP Section 6.2 describes the reactive noise management system including responses to noise level alarms raised by the real time noise monitors.
19	Management of equipment to be used in the pit at night during winter months or adverse weather conditions; and	Compliant	NMP Sections 6.1.1 to 6.1.3 describe procedures to identify noisy equipment and to preferentially deploy to or remove equipment from noise risk areas. Annual Reviews (2016-2018) Section 6.2.3 describes active noise monitoring and management procedures including equipment downtime to maintain compliance with noise criteria.
20	Blast design to incorporate control on the maximum	Compliant	BMP Section 1.3 states blast design is a key element of the blast impact

Ref	Assessment Requirement	2019 Status	2019 Evidence
	instantaneous charge to ensure that acceptable vibration limits are maintained.		mitigation strategy. BMP Sections 4.2 and 6.2 include a commitment to design blasts to minimise impacts and meet relevant criteria at sensitive locations.
Air			
21	<ul style="list-style-type: none"> • Ongoing implementation of CNA EMS Procedure 8 – Air Quality Management; • Disturb only the minimum area necessary for mining; • Reshape topsoil and rehabilitate completed overburden emplacement areas as soon as practicable after the completion of overburden tipping; • Adequate stemming will be used at all times; • Maintain coal handling areas in a moist condition using water carts to minimise the generation of dust; • Dust aprons will be lowered during drilling; • Drills will be equipped with dust extraction cyclones or water injection systems and will be used when drilling; • All roads and trafficked areas will be watered using water carts to minimise the generation of dust; • All haul roads will have edges clearly defined with marker posts or equivalent to control their locations, especially when controlling large overburden placement areas; • Development of minor roads will be limited and the location of these will be clearly defined; • Obsolete roads will be ripped and revegetated; and • Access tracks used for topsoil stripping equipment will be kept damp during use. Topsoil stripping to be avoided in extreme dry periods. 	Compliant	The AQGHGMP and the PRP implemented through EPL 640 provide comprehensive dust controls in line with best practice that supersede these requirements. Additional observations made on-site during the site visit demonstrated good dust management practices.
Visual			

Ref	Assessment Requirement	2019 Status	2019 Evidence
22	<ul style="list-style-type: none"> Ongoing implementation of CNA EMS Procedure 10.1 – Visual Management; and Progressive rehabilitation be undertaken to reduce visual impacts associated with the extension. Annual visual assessment of operations will be undertaken, including recommendations for additional mitigation measures where necessary. 	Not Compliant	<p>MOP Section 3.2.9</p> <p>Minesoils inspected on site for progressive rehabilitation and confirmed. HVO's response to the recommendation was to review current relevance in relation to recent property purchases to determine if private receptors would still be impacted visually by HVO North since the 2010 SOC.</p> <p>HVO has since purchased all properties that would have been considered to have been visually impacted by HVO north (particularly the Wandewoi Property on Lemington Road).</p> <p>HVO considers Annual visual assessments are therefore no longer considered relevant (DB pers comms). A written justification should be provided to DPIE that these are no longer required.</p>
Archaeology			
23	<ul style="list-style-type: none"> Ongoing implementation of CNA EMS Procedure 2.1 – Cultural Heritage Management; Further archaeological investigation at sites C1, C2, C8, C9 and C10 prior to removal; Scarred tree (Site C3) to be removed and relocated (in consultation with the Aboriginal community) to a location where it will be protected from further development; Protect CM-CD1 by maintaining a buffer zone of at least 15m wide; Protection of CM1 and part of CM2. 	Compliant	<p>As per Sch 3 Cond 41</p> <p>Sites C1, C2, C8, C9 and C10 have been salvaged under permit s90#2547. Viewed Aboriginal Site Impact Recording Form and included in the Cultural Heritage Salvage Report 2007 by ERM.</p> <p>Viewed site C3 (AHIMS ID 37-2-2080) Aboriginal Site Impact Recording Form which confirmed this was removed and collected by the Traditional Owner representatives as part of the mitigation process.</p> <p>Confirmed CM-CD1 is still valid and Schedule 15 of the ACHMP states includes a 60m buffer.</p>
Ecology			
24	<ul style="list-style-type: none"> Ongoing implementation of CNA EMS Procedure 10.2 – Flora and Fauna; 	Compliant	<p>As per Sch 3 Cond 35</p> <p>This procedure is no longer followed, this has been updated with Glencore standards.</p>
25	<ul style="list-style-type: none"> Grazing cattle will be removed from the billabong area to enable recruitment of the River Red Gums and to reduce stresses on this area; 	Compliant	<p>No River Red Gums removed from the billabong area (AS per comms).</p> <p>Viewed Billabong Area during site inspection which included fencing surrounding the area and no cattle seen within.</p>

Ref	Assessment Requirement	2019 Status	2019 Evidence
	<ul style="list-style-type: none"> No River Red Gums will be removed from the billabong area; 		
26	<ul style="list-style-type: none"> Buffer areas (areas in which no construction, vehicle or personnel movements or mining activities are undertaken) will be defined around the stand of River Red Gums surrounding the billabong to prevent compaction of soil and edge effects. It is recommended the buffer be at least 20m in width; 	Compliant	Site inspection identified fencing, clear signage regarding the protected vegetation within.
27	<ul style="list-style-type: none"> Fencing will be constructed on the development side of the buffer around the River Red Gums to prevent access by construction personnel and vehicles; Construction of levees will take into consideration the indirect impacts on surface water flows, particularly close to the billabong area; Appropriate erosion and sediment controls will be implemented across the study area prior to commencement of any construction activities to prevent potential impacts on the Hunter River, the billabong and drainage lines within the study area; 	Compliant	Viewed representative fencing on site inspection. All construction works before 2010 (per comms AS).
28	<ul style="list-style-type: none"> Pre-clearance surveys in accordance with CNA EMS Procedure 10.2 – Flora and Fauna will be undertaken for all trees to be removed from the services corridor; 	Not Triggered	No new work in the area (per comms AS).
29	<ul style="list-style-type: none"> Any soil removed for the proposed mine construction or associated activities will not be dumped on, or directly adjacent to, conserved areas, buffer areas or any watercourses or waterbodies where there is potential for weed seeds to be spread during rainfall events; 	Not Triggered	Not within audit period.
30	<ul style="list-style-type: none"> Development and implementation of a monitoring programme to assess groundwater conditions and the 	Compliant	Refer to Sch 3 Cond 30.

Ref	Assessment Requirement	2019 Status	2019 Evidence
	health of the stand of River Red Gums in the billabong area; and		
31	<ul style="list-style-type: none"> If monitoring identified groundwater changes which impact on the trees as a result of mining activities, surface water management will be developed to redirect surface water to the billabong to simulate a flooding event as in an ephemeral drain 	Compliant	Refer to Sch 3 Cond 30.
Soils			
32	<ul style="list-style-type: none"> Class II land to be rehabilitated in accordance with methods currently used for HVO alluvial lands; and Rehabilitation plan to connect undisturbed and rehabilitated areas of Class II land where possible. 	Not Triggered	Not commenced to date.

Table E
Other Licences & Approvals

* Reasons for non-compliances with individual conditions are indicated in **bold and underlined**. Recommendations are **bolded**.

Instrument	Status	Comments
EPL 640	Not Compliant	<p>A1.1) See response to Sch 2 Cond 6 of PA 06_0261 and Sch 2 Cond 7-9 of DA 450-10-2003. A record of crushed aggregate was not available to review as recommended at the last IEA to confirm limits.</p> <p>A2.1) Viewed listed figure dated 2/8/16. Premises as described. No figure available on website.</p> <p>A3.1)</p> <p>P1) See response to Sch 3 Cond 2, 19 and 25 of PA 06_0261 and Sch 3 Cond 4A, 7 and 21 of DA 450-10-2003. No discharges during audit period (AS per comms).</p> <p>L1) See response to Sch 3 Cond 25 of PA 06_0261 and Sch 3 Cond 20 of DA 450-10-2003. <u>Turbid water entered Farrells Creek from sediment dam overtop on 4-5/10/18, turbid water entered Farrells Creek from a rehabilitation area on a separate occasion on the 18/3/19, turbid water entered Farrells Creek from two sediment dams on 30/3/19 and discharge of mine water to Bayswater Creek.</u></p> <p>L2) Not Triggered.</p> <p>L3) Not Triggered.</p> <p>L4) See response to Sch 3 Cond 7-11 of PA 06_0261 and Sch 3 Cond 12-14 of DA 450-10-2003. <u>A blast occurred on Easter Saturday (declared a public holiday). Two blasting exceedances on one occasion in 2018 at point 9 & 18.</u></p> <p>O1) See response to Sch 3 Cond 57 of PA 06_0261 and Sch 3 Cond 57 of DA 450-10-2003 relating to handling and storage of materials. Refer to PA 06_0261 Sch 5 Cond 2 for a summary of all incidents during the audit period.</p> <p>O2.1) See response to Sch 2 Cond 12 of PA 06_0261 and Sch 2 Cond 12 of DA 450-10-2003. <u>Minor discharge of saline water to Parnells Creek due to pinhole leak on 4/11/16.</u></p> <p>O3) See response to Sch 3 Cond 19 & 22 of PA 06_0261 and Sch 3 Cond 4A & 5 of DA 450-10-2003. <u>EPA issued HVO with an Official Caution on 17/11/17 for alleged contraventions that occurred on 14/8/17 which was originally failed to be included in the 2017 Annual Return however was identified and annual return edited to include this inaccuracy.</u> See response to DA 450-10-2003 Sch 3 Cond 50 detailing an inspection of the covered loads and associated photo.</p> <p>O4) See response to Sch 3 Cond 34 of DA 450-10-2003. No burning has taken place on site during the audit period (AS per comms).</p>

Instrument	Status	Comments
		<p>M1) Viewed HVO Environmental Monitoring Database which contains monitoring results for all HVO site. Records go back longer than 4 years. No samples were collected in the audit period which require laboratory analysis; therefore, no records of Chain of Custody records are available.</p> <p>M2.1) Viewed draft monitoring audit undertaken by Gauge Industrial and Environmental. Audit which confirms compliance with this condition.</p> <p>M2.2) Viewed draft monitoring audit undertaken by Gauge Industrial and Environmental. Audit reviewed compliance of real time air quality monitoring against AM22 and relevant Australian Standards.</p> <p>M2.3) Not Triggered.</p> <p>M3.1) Viewed HVO 2019 draft Audit of Environmental Sampling Contractors with Respect to Sampling and Testing V1.1 which states monitoring is conducted in accordance with the requirement <i>AM-22 - Dec 2006 – Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales, Department of Environment and Conservation</i>.</p> <p>M3.2) Not Triggered.</p> <p>M4) Viewed HVO 2019 Audit of Environmental Sampling Contractors with Respect to Sampling and Testing V1.1 section 3.5 provides confirmation of compliance against this condition.</p> <p>M5) Confirmed CMO database contains information required for this condition. Viewed example from complaint regarding blast fume which occurred on the 30/10/19 and dust complaint dated 4/10/19 which contains required information with additional information provided. Records of complaints are available greater than the 4 years required under this condition. No request to produce these records have been made from an authorised EPA officer (AS per comms). Recommend adding comment box as to why no further actions are required within CMO complaint form template.</p> <p>M6) Viewed the information to HVO's community complaints line available on their website which satisfies this condition. This number is also advertised in the local papers. Viewed example advertisement about blasting and complaint hotline and viewed Singleton Argus monthly invoice.</p> <p>M7) Not Triggered</p> <p>M8) Viewed Kaboom Blast 6 monthly maintenance form band calibration report for Mason Dieu dated 1/11/18 from Benchmark Monitoring and is consistent with the relevant conditions</p> <p>M9.1-4) Not Triggered</p> <p>M9.5) Viewed excel spreadsheet 191210EPL TEOM Data 2019ytd which provides data records every 10 minutes at the required 5 sites.</p> <p>R1.1) Viewed the 2018, 2017 and 2016 Annual Returns and confirm these satisfy this condition.</p> <p>R1.2) 2018, 2017 and 2016 Annual Returns contain required information for each reporting period.</p> <p>R1.3) Variation 34 was the last transfer in February 2016 outside of audit period. Not triggered</p>

Instrument	Status	Comments
		<p>R1.4) Not triggered</p> <p>R1.5) Viewed Econnect receipts dated 21/6/18, 8/5/18, 29/5/19. 2017 Annual Return was submitted in 2018 due the EPA requiring updates relating to omissions (refer to response O3).</p> <p>R1.6) Viewed records of Annual Returns submitted to EPA dating back to 2016.</p> <p>R1.7) Viewed 2016, 2017 and 2018 Annual Returns which have been signed by Anthony Galvin (General Manager and Director), Reihhold Schmidt (Director) Viewed extract from ASIC database confirming Anthony Galvin and Reihhold Schmidt are approved to sign off.</p> <p>R2) See response to Sch 5 Cond 2 of PA 06_0261 and Sch 5 Cond 7 of DA 450-10-2003.</p> <p>R3.1) See response to Sch 5 Cond 2 of PA 06_0261 and Sch 5 Cond 7 of DA 450-10-2003.</p> <p>R3.2) See response to Sch 5 Cond 2 of PA 06_0261 and Sch 5 Cond 7 of DA 450-10-2003.</p> <p>R3.3) Viewed example EPA report dated 12/4/19 relating to Farrells Creek incident. Confirmed compliance with actions listed.</p> <p>R3.4) Noted.</p> <p>R4.1) Not Triggered.</p> <p>R4.2) See response to PA 06_0261 Sch 5 Cond 2 for a summary of all noise incidents. HVO did not report Knoodlers lane blast monitor failure to capture two blasts. This was not reported due to being deemed to have no potential for environmental harm as other blast monitors closer to mining showed that no exceedance would have occurred.</p> <p>G1) Viewed a copy of license at the premises. No request by EPA has been made during the audit period to view a copy of this (AS per comms).</p> <p>U1.1) Not Triggered. Consultant engaged and on track to completing by deadline.</p> <p>U1.2) Condition added 1/5/19. Viewed email 30/10/19 to EPA containing the required interim report for Q3 which contains the required information. Viewed email dated 31/7/19 to EPA containing Q2 interim report which includes the required information. No response received from EPA. Majority of this process was completed by water engineers from Engeny Water Management. Viewed CV's of relevant personnel.</p> <p>U1.3) Viewed email dated 29/11/19 to EPA containing the Seepage Study report. Prepared by Claire Stephenson from and Chris Meikle from SLR. Which includes information on bore installation and flocculation plant and additional tailings deposition.</p> <p>U2) Viewed email dated 27/9/19 to EPA containing the Water Management Infrastructure Upgrade Assessment. This was completed by Engeny Water Management (Susan Shield and Andrew Vitale). This assessment includes the relevant sections which satisfy this condition.</p> <p>E1.1) See response to DA 450-10-2003 Sch 3 Cond 20. <u>Sediment sump at the HVLP overtopped the sump spillway into Bayswater Creek on 30/3/17.</u></p> <p>E1.2) Not Triggered.</p>

Instrument	Status	Comments
		E1.3) Not Triggered.
ML 1634	Compliant	<p>1) Lease has not been renewed in audit period. Next renewal due in 2030.</p> <p>2) See response to Sch 3 Cond 35 of PA 06_0261 and Sch 3 Cond 62 of DA 450-10-2003.</p> <p>3) See response to Sch 3 Cond 36 of PA 06_0261 and Sch 3 Cond 62C of DA 450-10-2003 detailing what is included in the currently approved MOPs.</p> <p>4) Viewed Annual Compliance Report for ML1634 dated 31/7/17 which states no non-compliance or recommendations. Viewed acknowledgement of receipt of report 1/8/17. Viewed letter from DRG dated 19/2/18 stating variation of conditions 4 and 5 that now require only reporting of non-compliances. No non-compliances from 2018 and 2019 (KW per comms.).</p> <p>5) No incidents have been reported to POEO (per comms KW) Viewed letter from DRG dated 19/2/18 stating variation of conditions 4 and 5 that now require only reporting of non-compliances. No non-compliances from 2018 and 2019 (per com ms. KW).</p> <p>6) Not applicable.</p> <p>7) As per Sch 3 Cond 36 of PA 06_0261 and Sch 3 Cond 62C of DA 450-10-2003.</p> <p>8) Viewed Bank Guarantee from ANZ for HVO South for \$24,150,630 which covers ML1634 signed 26/4/18. Viewed Bank Guarantee from SMBC for HVO South for \$25,136,370 which covers ML1634 signed 7/5/18. Viewed Bank Guarantee from DBS for HVO South for \$8,672,040 which covers ML1634 signed 7/10/18. Viewed Bank Guarantee from Deutsche for HVO South for \$8,331,960 which covers ML1634 signed 19/10/18. Viewed letter from DRG dated 13/9/18 requiring \$66,291,000 after a security review for HVO South. The total amount of bank guarantee equals \$66,291,000.</p> <p>9) Not applicable.</p> <p>Exploration report: Viewed acceptance emails from DRG lodged for 2017, 2018 viewed. Note the date reference in the DRG receipt emails are incorrect for both previous years. Viewed confirmation of delivery email dated 30/8/19 confirming delivery of the 2019 Exploration Report dated 29/8/19 and viewed front cover of the 2018-2019 Exploration Report to confirm the correct dates No exploration during the audit period (KW per comms).</p> <p>10) Not applicable. Viewed map showing notification area of the Warkworth North Pit Tailings Dam. The Warkworth North Pit Tailings Dam is on Warkworth to the south of HVO South Project Boundary. The closest HVO mining pit is South Lemington with no approved mining within the Notification Area.</p> <p>11) Not triggered.</p> <p>Under Mining Act Division 3 S292E for the rent and Division S292L for Levies. Viewed receipt for \$112,204.75 dated 22/8/19 for payment of rents and levies for ML1634. Viewed receipt for \$90,949.75 dated 16/8/18 for payment of rents and levies for ML1634. Viewed receipt for \$90,949.75 dated 17/8/17 for payment of rents and levies for ML1634.</p>

Instrument	Status	Comments
ML 1465	NT	No exploration has occurred within this lease during the audit period.
ML 1734	NT	No exploration has occurred within this lease during the audit period.
ML 1753	NT	No exploration has occurred within this lease during the audit period.
ML 1682	NT	No exploration has occurred within this lease during the audit period.
CL 398	NT	No exploration has occurred within this lease during the audit period.
CL 327	NT	No exploration has occurred within this lease during the audit period.
CCL 714	NT	No exploration has occurred within this lease during the audit period.
HVO North WALs	Compliant	As per note in DA 450-10-2003 Sch 3 Cond 20.

Hunter Valley Operations Response to Audit Recommendations

Ref	Description	HVO Response	Timing
Previous Audit Recommendations			
PA Sch 3 Cond 58	Include reminder of storage and segregation rules for dangerous goods as part of waste section of environmental training matrix.	HVO will include awareness of storage and segregation of dangerous goods into relevant roles identified in the Training Needs Analysis (TNA).	20/12/2020
PA SOC Ref 11	Refer to PA SOC Ref 11 below.	Seed collection will occur during 2020 if available.	31/12/2020
DA Sch 3 Cond 54	Refer to DA 450-10-2003 Sch 3 Cond 54 below.	HVO has reviewed the relevance and has discussed verbally with DPIE. Condition is already noted to be non-compliant in previous audits. HVO will seek confirmation from DPIE formally and intends to undertake a visual assessment which demonstrates the visual screen is no longer required.	20/11/2020
DA SOC Ref 22	Refer to DA 450-10-2003 SOC Ref 22 below.	As per previous IEA, HVO's response to the recommendations was to review current relevance of completing the assessments in respect to recent property purchases to determine if private receptors would still be impacted visually by HVO north since the 2010 SOC. HVO has since purchased all properties that would have been considered to have been visually impacted by HVO north particularly the Wandewoi Property on Lemington Road. Annual visual assessments are therefore no longer considered relevant. Agree with recommendation to have confirmation from DPIE that these are no longer required.	30/09/2020

Ref	Description	HVO Response	Timing
EPL A1.1	As EPL permits "Crushing, grinding or separating > 2000000 T annual processing capacity", recommend keeping records is not required for compliance purposes.	HVO agrees that there is no requirement for maintaining these records. No further action is required to address this.	-
HVO South – PA 06_0261 Non-Compliance Recommendations			
Sch 2 Cond 2a	Work with DPIE to comply with conditions in Table 7 of this IEA Report where practical.	Actions to address non compliances are committed to via HVO's response to recommendations.	-
Sch 2 Cond 15	Ensure consultation with Singleton Council and RFS over the Bushfire Management Plan as per Schedule 3 Condition 30.	Council and RFS have been consulted on the revised version since the audit and this will be included in the plan once finalised.	30/06/2020
Sch 3 Cond 7	Bridges Acoustic recommends to avoid possible overpressure reflection from the control building and resultant uncertainty regarding overpressure levels, the second Maison Dieu monitor should be considered the primary monitor in this area.	HVO has since received confirmation from DPIE that its relocation approved. HVO is currently seeking approval from the EPA for the relocation as part of the five yearly licence review and will permanently relocate the monitor once approval is received.	TBA – pending EPA response.
Sch 3 Cond 10	Continue pre-blast environmental checks to ensure blasting is completed in accordance with PA 06_0261	HVO agrees, the pre-blasting checks will continue to be implemented. No further action is required to address this.	Complete
Sch 3 Cond 19	Continue HVO's approved management and reporting processes for any air quality exceedances.	HVO agrees and will continue to implement management and reporting process for air quality exceedances. No further action is required to address this.	Complete
Sch 3 Cond 28	Maintain records of consultation and submission for inclusion in future Annual Reviews	HVO will continue to maintain records of consultation and submission of Annual Reviews using existing processes. No further action is required to address this.	Complete

Ref	Description	HVO Response	Timing
Sch 3 Cond 30 31	<p>River Red Gum Strategy:</p> <ul style="list-style-type: none"> • Add confirmation in the Annual Review over what areas of the Goulburn River Biodiversity areas have been addressed (in order to confirm HVO's 140 ha is compliant). • Recommend any revision to the Strategy include consultation with Dol Water and OEH. • Recommend holistic review of actions in light of future mining in the immediate area and likely impacts, flooding potential, climate, groundwater and surface water monitoring, and ecological monitoring to determine a realistic way forward in relation to the management of the area which has been inconclusive to date. DPIE should be consulted in relation to findings and way forward to ensure satisfaction secured. 	<p>Dot point one – HVO will address this in future Annual Reviews</p> <p>Dot Point two and three – The strategy is currently under review and HVO will include evidence of relevant consultation in next revision.</p>	<p>2020 AEMR – 31/03/2021</p> <p>30/06/2020</p>
Sch 3 Cond 40	<p>Continue current process for completing twice annual compliance inspections as per the approved ACHMP, as implemented since the non-compliance was identified.</p>	<p>HVO agrees and will continue to implement the inspection regime as per the ACHMP. No further action is required to address this.</p>	<p>Complete</p>
Sch 3 Cond 53	<p>Northstar recommends that the AQMP Section 7 is updated to identify opportunities for emission reductions (in the reasonable and feasible areas of electricity use, diesel and other fuels, and Land Management. The Annual Review should include a summary of greenhouse gas emissions against commitments in AQMP.</p>	<p>The current AQMP discuss' Greenhouse Gas Management and as such no further modification to the AQMP is considered necessary</p> <p>HVO will recommence reporting in the Annual Review greenhouse gas emission summary information against the AQMP.</p>	<p>2020 AEMR - 31/03/2021</p>
Sch 3 Cond 60	<p>Obtain correspondence from Council and Rural Fire Service confirming consultation and add to appendix at next review of the Bushfire Management Plan.</p>	<p>Council and RFS have been consulted on the revised version since the audit and this will be included in the plan once finalised.</p>	<p>30/06/2020</p>
Sch 4 Cond 2	<p>Update process to notify affected landholders for exceedances of air and blasting.</p>	<p>HVO has developed a post incident (exceedance) checklist which is to ensure that landowners and/or tenants are notified as required.</p>	<p>Complete</p>

Ref	Description	HVO Response	Timing
Sch 5 Cond 1a	At the next required revision to relevant management plans (none urgent) ensure all items within Sch 5 Cond 1a are addressed.	HVO does not consider this to be non-compliant in accordance with the footnote of the condition that the Secretary may waive some of the requirements required by the condition if they are unnecessary or unwarranted for particular management plans. HVO considers the Secretary's approval of the plans is Approval of these Waivers. Nonetheless, HVO will review this for adequacy in the next revision of each relevant management plan.	30/06/2020
Sch 5 Cond 4a	Continue to ensure reminders are in place after each occasion for required reviews and revisions of strategies and documented.	HVO agrees and will continue to utilise automated reminders triggering reviews of plans and strategies. No further action is required to address this.	Complete
App4 A.4	Tonal noise should be included in the noise monitoring reports and the NMP on its next revision.	HVO's noise monitoring consultant's monitoring reports indicate that intermittent or tonal features are not typically present in mining operational noise and the assessment is not undertaken on this basis. However, HVO will request this inclusion to noise monitoring reports developed by the noise monitoring consultant.	30/04/2020
SOC Ref 11	Collect seed from River Red Gum area or justify why not possible/required in revised BMP.	Seed collection will occur during 2020 if available.	20/12/2020
HVO South – PA 06_0261 Continual Improvement Recommendations			
Sch 2 Cond 2 and Sch 3 Cond 23	Confirm all reasonable and feasible air quality controls are being implemented in this highly trafficked area with a high potential to generate airborne dust (e.g. water sprays, truck speed limits, road watering, dust suppressants, inspections). As required, update AQMP with air quality controls specific to this area. Recommend MOPs describe temporary in pit coal stockpiling and relevant mitigation.	HVO will review adequacy of stockpile dust control in the next review of the Air Quality Management Plan. HVO will also review need for including this information in the next revision of the MOP.	30/06/2020

Ref	Description	HVO Response	Timing
Sch 2 Cond 16	<ul style="list-style-type: none"> • Update for new ownership and systems and regular review of environmental components of this induction. • Finalise updating HVO Site Familiarisation to include Aboriginal and cultural heritage information and other environmental issues not included. • Recommend the implementation of regular refresher training rather than only induction as proposed in 2020 (AS pers comms). 	The HVO Site Familiarisation and training needs analysis is in the process of being updated which will address these recommendations	20/12/2020
Sch 3 Cond 1	Update Table 1 in a future Modification to remove mine owned land.	This will be considered in the next modification.	-
Sch 3 Cond 13	Update Blast Management Plan to specifically describe Hunter River and Crown Land blocks within 500 m of blast area and controls in place so that an Agreement is not required as per (b).	HVO will address recommendation in the next revision of the Blast Management Plan.	30/06/2020
Sch 3 Cond 18	Bridges Acoustic recommend revising and updating references in BMP Section 1 Tables 1 to 3, particularly Appendix references as inconsistencies were noted in all three tables.	HVO will include this in the next revision of the Blast Management Plan.	30/06/2020
Sch 3 Cond 19	<p>Dust deposition gauges at DL30 and Warkworth; and PM10 monitors at Knodlers Lane and Long Point be reconsidered as to their appropriateness as representative of private receivers (occur outside EA predictions of exceedance of criteria) as they are exceeding annual average results during the IEA period (however stated not due to HVO activities and not reported consistent with approved AQMP). As Knodlers Lane and Long Point monitoring sites occur within exceedance predictions for PM10 in the MOD5 assessment, it is likely that they will exceed on a continuous basis. HVO advises that DG will remain as internal management sites, not compliance as per Table 5 of the AQMP.</p> <p>Internal procedures and relevant training be updated for change to AQMP which changes reportable circumstances for PM10 24 hr consistent with the updated AQMP Section 9. HVO advises this is proposed.</p>	The current approved AQMP identifies which DDG are utilised as a measure of compliance, HVO considers this issue to now be addressed in the current AQMP.	Complete
Sch 3 Cond 21	At next Modification Table 14 is updated for property ownership changes.	This will be considered in the next modification.	-

Ref	Description	HVO Response	Timing
Sch 3 Cond 29	Regional Biodiversity Annual Review template be updated to allow quantification of monitoring data for HVO and clearly stipulate HVO's requirements and criteria are being met.	HVO will address this recommendation in future Annual Reviews.	2020 AEMR-31/03/2021
Sch 3 Cond 33a	Include DPIE approval as an appendix to the Biodiversity Management Plan.	This will be addressed within the revised integrated Biodiversity Management Plan.	30/06/2020
Sch 3 Cond 35	<p>Mine Soils recommend the following:</p> <ul style="list-style-type: none"> • Soil be re-spread over areas of requiring attention to reach rehabilitation targets rather than alternative ameliorants given the location is typically on the steeper slopes; and • Weed management remains a priority on site, especially Galenia and over time Rhodes Grass. 	<p>Site specific intervention plans are and will continue to be developed for rehabilitation areas which initiate rehabilitation trigger action response plan actions. As this process is in place, HVO considers that no additional actions are required to address this.</p> <p>HVO agrees that weed management remains a priority, commitments made under the s240 intervention plan addresses this finding and as such no additional actions are required to address this.</p>	Ongoing
Sch 3 Cond 39	Confirm with DPIE that this condition relating to the Conservation and Biodiversity Offset Implementation Bond applies to the update of the Goulburn River Management Plan not the Biodiversity Management Plan described in Sch 3 Cond 33a.	This will be addressed within the revised integrated Biodiversity Management Plan.	30/06/2020
Sch 5 Cond 1	Recommend plan be updated for new ownership structure, titles and EMS structure in 2020.	Revised EMS has been submitted to DPIE and is awaiting approval.	Complete
Sch 5 Cond 5	Consider at next modification note updated as per contemporary consents to allow DPIE flexibility in choosing audit experts required going forward, if amenable to DPIE.	This will be considered in the next modification.	-

Ref	Description	HVO Response	Timing
App4 A.1	<p>Bridges Acoustics note during the audit period, a high percentage of results were collected under invalid weather conditions. HVO experienced the following approximate invalid results during the audit period:</p> <ul style="list-style-type: none"> • HVO North- 2017 (30%), 2018 (19%) and 2019 Jan-Sep (58%); and • HVO South – 2017 (65%), 2018 (56%) and 2019 Jan-Sep (78%); <p>Bridges Acoustics recommends Independent consultants completing the monthly noise compliance surveys should review predicted weather conditions before each noise survey to maximise noise data collected under the weather conditions specified in this condition, or a review of this process should be undertaken to ensure effectiveness. Additional monitoring should be considered where invalid results are greater than 50% of recorded results. NMP should be updated to reflect this commitment.</p>	<p>Selection/scheduling of noise assessment nights is conducted independently from HVO by the monitoring consulting using forecasted weather information to endeavour to collect valid monitoring data. HVO will conduct a review of the process with the monitoring consultant.</p> <p>The recommendation of additional monitoring does not add any additional value to the process already being undertaken. It's expected that samples will be conducted in a range of weather conditions and as such re scheduling another round of monitoring after it has already been completed is not considered to be reasonably practicable.</p>	31/05/2020
SOC Ref 1	At the next modifications these SOCs are revised to remove any duplication with conditions of consent.	This will be considered in the next modification.	-
SOC Ref 10	Future versions of the WMP include an up-to-date list of the WALs and that all WALs are made available via the website.	An updated WAL list is published annually in the Annual Review which is published to the HVO website.	-
HVO North - DA 450-10-2003 Non-Compliance Recommendations			
Sch 2 Cond 2a	Work with DPIE to comply with non-compliances in Table 7 of this IEA Report, where practical.	Actions to address non compliances are committed to via HVO's response to recommendations.	-
Sch 2 Cond 15	Ensure consultation with relevant regulators occurs for all management plans, or justify why not required in plan (e.g. administrative changes).	Noted	-

Ref	Description	HVO Response	Timing
Sch 3 Cond 4	As per PA 06_0261 Sch 3 Cond 53.	The current AQMP discuss' Greenhouse Gas Management and as such no further modification to the AQMP is considered necessary HVO will recommence reporting in the Annual Review greenhouse gas emission summary information against the AQMP.	AEMR 2020 – 31/03/2021
Sch 3 Cond 7	Continue to implement the current approved NMP (Feb 2019) in relation to management of any exceedances and non-compliances.	HVO agrees and will continue to implement the Noise Management Plan requirements. No further action is required to address this	Complete
Sch 3 Cond 20	Continue to implement the Pollution Reduction Program for upgrading of water infrastructure at HVO and inspection regime since sump was upgraded.	HVO agrees and will continue to implement the requirements of the water containment Pollution Reduction Program and inspection regimes. No Additional action is required to address this.	Complete
Sch 4 Cond 4	As per PA 06_0261 Sch 5 Cond 4a.	HVO agrees and will continue to utilise automated reminders triggering reviews of plans and strategies. No further action is required to address this.	Complete
App4 A.4	Tonal noise should be included in the noise monitoring reports and the NMP on its next revision.	HVO's noise monitoring consultant's monitoring reports indicate that intermittent or tonal features are not typically present in mining operational noise and the assessment is not undertaken on this basis. However, HVO will request this inclusion to noise monitoring reports developed by the noise monitoring consultant.	30/04/2020

Ref	Description	HVO Response	Timing
SOC Ref 22	A written justification should be provided to DPIE for approval that annual visual assessments are no longer required.	As per previous IEA, HVO's response to the recommendations was to review current relevance of completing the assessments in respect to recent property purchases to determine if private receptors would still be impacted visually by HVO north since the 2010 SOC. HVO has since purchased all properties that would have been considered to have been visually impacted by HVO north particularly the Wandewoi Property on Lemington Road. Annual visual assessments are therefore no longer considered relevant. Agree with recommendation to have confirmation from DPIE that these are no longer required.	30/09/2020
HVO North DA 450-10-2003 (MOD7) Continual Improvement Recommendations			
Sch 3 Cond 1	Update Table 1 in the next Modification to remove mine owned land.	This will be considered in the next modification.	-
Sch 3 Cond 4a	At next modification condition should be updated to be consistent with the industry by amending Note (b) incremental.	This will be considered at the next modification.	-
Sch 3 Cond 9	Inconsistency in internal records were found in both the amount of haul trucks that have been attenuated and the completion of SPL testing. Internal records related to sound suppression and testing should be updated to be complete and consistent.	Inconsistency in reported levels relates to there being various stages of sound attenuation in the haul truck fleet across HVO. For simplicity of reporting HVO typically reports the total number of fleet attenuated regardless of the stage of attenuation. HVO considers the records to be complete and will continue to maintain accurate records of sound attenuation and sound testing. As this process already occurs there is no further action required to address this ongoing.	Complete

Ref	Description	HVO Response	Timing
Sch 3 Cond 19	Revision and update to the Blast Management Plan to references in BMP Section 1 Tables 1 to 3, particularly Appendix references as such errors have been noted in all three tables.	HVO will amend in the next revision of the Blast Management Plan.	30/06/2020
Sch 3 Cond 28a	Future versions of the FRMS should include relevant consultation and approval correspondence in an appendix.	HVO will include relevant evidence of consultation in the next revision of the FRMS.	30/06/2020
Sch 3 Cond 30	Recommend this condition is included in the revised strategy.	Recommendation will be addressed in next revision of the strategy.	30/06/2020
Sch 3 Cond 35	Update the relevant procedural document to include detail on relocating bat roosts. Update clause (e) to refer to the correct Table number.	HVO will address the recommendation in the next revision of the Flora and Fauna Procedure.	31/07/2020
Sch 3 Cond 45	Recommend re-approval of Lemington Road Closure Approval / Plan.	HVO maintains this road closure approval at a frequency defined by the approval expiry granted by Singleton Council. HVO will incorporate the last approval version in the next revision of the Blast Management Plan.	30/06/2020
Sch 3 Cond 54	Confirm visual screen purpose has changed and hence its value. Conduct consultation with DPIE if deemed no further plantings required due to changed visual sensitivity of location with acquisition of relevant properties.	HVO has reviewed the relevance and has discussed verbally with DPIE. Condition is already noted to be non-compliant in previous audits. HVO Agrees with recommendation to seek confirmation from DPIE formally and intends to undertake a visual assessment which demonstrates the visual screen is no longer required.	20/11/2020
SOC Ref 1, 4, 12, 13 and 14	Compliance requirement is updated or removed during a future modification for consistency and in order to ensure consistent requirements.	This will be considered in the next modification	-
EPL 640			

Ref	Description	HVO Response	Timing
L1.1	Continue to implement Pollution Reduction Program for upgrading of water infrastructure at HVO and inspections regime.	HVO agrees and will continue to implement the requirements of the water containment Pollution Reduction Program and inspection regimes. No Additional action is required to address this.	Complete
L4.1	Refer to PA 06_0261 Sch 3 Cond 10.	HVO agrees, the pre-blasting checks will continue to be implemented. No further action is required to address this.	Complete
L4.3	Refer to PA 06_0261 Sch 3 Cond 7.	HVO has since received confirmation from DPIE that its relocation approved. HVO is currently seeking approval from the EPA for the relocation as part of the five yearly licence review and will permanently relocate the monitor once approval is received.	TBA – pending EPA response.
M.5	Add comment box as to why no further actions are required within CMO complaint form template in order to show compliance with M5.2(f).	HVO will review and revise its community complaints procedures to ensure this information is captured when required.	31/08/2020
O2.1	Refer to DA 450-10-2003 Sch 3 Cond 20.	HVO agrees and will continue to implement the requirements of the water containment Pollution Reduction Program and inspection regimes. No Additional action is required to address this.	Complete



Mr Dominic Brown
Environment & Community Coordinator
HV Operations Pty Ltd
PO Box 315
SINGLETON NSW 2330

Via Email Only: environmentandcommunity@hvo.com.au

30/04/2020

Dear Mr Brown

**Hunter Valley Operations DA 450-10-2003 and PA_06 0261
Revised Independent Audit 2019**

Reference is made to the revised Independent Environmental Audit (IEA) report and Response to Audit Recommendations (RAR) for Hunter Valley Operations, prepared as required by Schedule 5, Condition 5 of the HVO South Coal Project Approval (PA 06_0261), and Schedule 5, Condition 10 of the HVO West Pit (HVO North) Approval (DA 450-10-2003) (the Approvals) and resubmitted by HV Operations Pty Ltd (HVO) to the Department of Planning, Industry and Environment (the Department) on 2 April 2020.

The Department considers that the IEA report generally satisfies the reporting requirements of the Approval. Please note that acceptance of this report is not endorsement of the compliance status of the project.

Non-compliances identified in the IEA will be assessed in accordance with the Department's Compliance Policy. Further correspondence may be sent in relation to the identified non-compliances.

Please include a status update for all actions provided in the RAR in the next Annual Review, until all actions are completed.

If you wish to discuss the matter further, please contact James Epstein, Senior Compliance Officer on (02) 6575 3419 or email to James.Epstein@planning.nsw.gov.au

Yours sincerely

A handwritten signature in black ink, appearing to read 'Heidi Watters'.

Heidi Watters
Team Leader Northern
Compliance

As nominee of the Planning Secretary