

**Aus-10 Rhyolite Pty Ltd
Tinda Creek Sand Quarry**

Independent Environmental Audit:

**Tinda Creek Sand Project
SSD-4978, NSW**

Audit Number: 1217.01

January 2017

Prepared by



Independent Audit Certification Form

Development Name Tinda Creek Sand Quarry
Development Consent No. SSD-4978
Description of Development Sand Quarry
Development Address Located approximately 67 kilometres north of Windsor along Putty Road, NSW
Operator Aus-10 Rhyolite Pty Ltd t/a Hy-Tec Concrete and Aggregates (Hy-Tec)
Operator Address Gateway Business Park U 4 63-79 Parramatta Rd Silverwater, NSW 2128

Independent Audit

Title of Audit Independent Environmental Audit: Tinda Creek Sand Project SSD-4978, NSW

I certify that I have undertaken the independent audit and prepared the contents of the attached independent audit report and to the best of my knowledge:

- The audit has been undertaken in accordance with relevant approval condition(s) and in accordance with the auditing standard AS/NZS ISO 19011:2014 and Post Approval Guidelines – Independent Audits
- The findings of the audit are reported truthfully, accurately and completely;
- I have exercised due diligence and professional judgement in conducting the audit;
- I have acted professionally, in an unbiased manner and did not allow undue influence to limit or over-ride objectivity in conducting the audit;
- I am not related to any owner or operator of the development as an employer, business partner, employee, sharing a common employer, having a contractual arrangement outside the audit, spouse, partner, sibling, parent, or child;
- I do not have any pecuniary interest in the audited development, including where there is a reasonable likelihood or expectation of financial gain or loss to me or to a person to whom I am closely related (i.e. immediate family);
- Neither I nor my employer have provided consultancy services for the audited development that were subject to this audit except as otherwise declared to the lead regulator prior to the audit; and
- I have not accepted, nor intend to accept any inducement, commission, gift or any other benefit (apart from fair payment) from any owner or operator of the development, their employees or any interested party. I have not knowingly allowed, nor intend to allow my colleagues to do so.

Note.

- a) The Independent Audit is an ‘environmental audit’ for the purposes of section 122B(2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.
- b) The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents—maximum penalty 2 years imprisonment or \$22,000, or both).

Signature:



Name of Lead or Principal Auditor James Hart
Address 426 King Street Newcastle
Email Address james_hart@bigpond.com
Auditor Certification Exemplar Global Lead Environmental Auditor No 12107
Date 15 May 2017

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➤ **Abbreviations**

AQMP	Air Quality Management Plan
DA	Development Approval
DPE	Department of Planning and Environment
EMS	Environmental Management Strategy
EPA	Environment Protection Authority
EPL	Environment Protection Licence
HMP	Heritage Management Plan
LMP	Landscape Management Plan
NMP	Noise Management Plan
NOW	NSW Office of Water
OEH	Office of Environment and Heritage
RMS	Roads and Maritime Services
TMP	Transport Management Plan
WMP	Water Management Plan

1 INTRODUCTION

1.1 Overview

Aus-10 Rhyolite Pty Ltd t/a Hy-Tec Concrete and Aggregates (Hy-Tec) operate the Tinda Creek Sand Quarry, an existing sand quarry located on Putty Road, approximately 67 kilometres north of Windsor, NSW. The quarry is located within Lots 1, 2 and 3 of DP 628806 and is bounded by Yengo National Park on the north, east, and south, and on the west by Putty Road. Wollemi National Park, along with several agricultural land holdings, is located on the western side of Putty Road.

Hy-Tec was granted Development Approval in April 2015 to operate the Tinda Creek Sand Quarry (SSD_4978). The previous approval (DA134/95) was surrendered on 10 December 2015.

The conditions of approval require Tinda Creek Sand Quarry to appoint an independent auditor to assess compliance with the Minister's Conditions of Approval obtained for the quarry operations.

Schedule 5, condition 10 of the approval requires an Independent Environmental Audit to be conducted within one year of the date of the commencement of quarrying operations, and every 3 years thereafter, unless the Director-General directs otherwise. The condition requires the proponent to commission and pay the full cost of the audit. The audit must:

- a) Be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been approved by the Secretary;
- b) Include consultation with relevant agencies;
- c) Assess the environmental performance of the project, and whether it is complying with the relevant requirements in this consent and any relevant EPL or necessary water licences for the development (including any assessment, strategy, plan or program required under these approvals);
- d) Review the adequacy of any strategy/plan/program required under this approval; and, if necessary
- e) Recommend appropriate measures or actions to improve the environmental performance of the development, or any assessment, strategy, plan or program required under the abovementioned approvals.

1.2 Audit Objectives

The objective of this Independent Environmental Audit was to assess the operations at the Tinda Creek Sand Quarry and provide a report in accordance with the requirements of Schedule 5, condition 10 of the development approval.

1.3 Audit Scope and Criteria

The scope of this audit was limited to the site, being Lots 1, 2, and 3 of DP 628806, and the activities and processes carried out by Hy-Tec in operating the quarry. The audit is the first for the project and covered the period since approval was granted.

The audit scope included:

- the conditions of all relevant approvals;
- management plan requirements;
- the requirements of relevant regulatory agencies;

- the status of the operation;
- the performance of the operation;
- results from previous audits;
- any incidents or community complaints;
- feedback received from other regulatory agencies on the performance of the operation; and
- feedback received from the community / community consultative committee on the performance of the operation.

The audit criteria were developed by the Lead Auditor, and are included as a checklist at the end of this report.

2 Methodology

The audit methodology included a review of approval conditions and key management plans prepared for the sand extraction operations, interviews with project personnel, and a site inspection to assess the level of compliance with and implementation those requirements.

2.1 Audit Team

The audit was conducted by the following:

Auditor	Role	Qualifications and Experience
James Hart	Lead Environmental Auditor Exemplar Global No 12105	See attached CV

James Hart was endorsed by the Secretary of the Department of Planning and Environment on 9 January 2017.

No additional specialist auditors were required for the project.

2.2 Approvals and Documents Audited

The following documents and approvals were reviewed and included within the audit:

- Development Approval – SSD_4978;
- Approval for the expansion of Existing Sand Quarry, Tinda Creek, NSW (EPBC 2013/028);
- Air Quality Management Plan – Tinda Creek Sand Quarry, Final November 2016;
- Noise Management Plan – Tinda Creek Sand Quarry, Final November 2016;
- Transport Management Plan – Tinda Creek Sand Quarry, Final November 2016;
- Water Management Plan – Tinda Creek Sand Quarry, Final August 2016;
- Landscape Management Plan – Tinda Creek Sand Quarry, Final August 2016;
- Heritage Management Plan - Tinda Creek Sand Quarry, Final November 2016;
- Environmental Management Strategy – Tinda Creek Sand Quarry, Final November 2016;
- Environmental Protection Licence No 12007, NSW EPA, 18/12/2015;
- Tinda Creek Sand Quarry Annual Review, January 2015 – December 2015;
- Tinda Creek Sand Quarry Complaints Register, January 2017;
- Tinda Creek Sand Quarry Draft Minutes Community Consultative Committee 17/10/16;
- Hawkesbury City Council – Letter Re Connection to Council Sewer Services, 15/01/13; and
- 2016 Noise Compliance Assessment – Prepared for Hy-Tec Concrete and aggregates Tinda Creek Quarry, Benbow Environmental August 2016.

2.3 Agency and Community Consultation

The following people were consulted with prior to the audit to obtain feedback and to focus the audit criteria towards key issues.

Contact	Agency	Comments
Janne Grose - Water Regulation Officer	NSW Department of Primary Industries Water	Concerns in relation to the adequacy of the Water Management Plan submitted in November 2015. It was noted that the Water Management Plan had been revised and was still in draft pending final approval.
Alex Bowlay, Operations Officer, Sydney Industry Section	NSW EPA	No specific issues. Noted that the company had requested a licence variation with respect to reporting requirements.
Matthew Owens	Hawkesbury City Council	Groundwater impacts – excessive use leading to draw down. Monitoring conducted on groundwater does not show any significant impact. Sand tonnages - Records show quantities removed are in accordance with EPL and approval conditions. Clearing outside of the approved spatial limits -
Lisa Andrews – Chairperson	Community Consultative Committee	No environmental concerns have been raised at the two Community Consultative Committee meetings held.

2.4 Name and Position of Persons Interviewed

The following site personnel were interviewed during the conduct of the audit:

Name	Position/Role	Organisation	Date of Interview
Darryl Thiedeke	National Planning and Development Manager	Hy-Tec	24/01/17
Oliver Winicup	Graduate Engineer	Hy-Tec	24/01/17
Lee Attard	Operations Manager	Hy-Tec	24/01/17
Daniel Reed	Strategy and Business Development	Hy-Tec	24/01/17
Ray Bygraves	Quarry Manager	Hy-Tec	24/01/17

2.5 Audit Process

The audit commenced with an Opening Meeting to confirm the scope, purpose, and timeline of the audit. The Opening Meeting was held at 08.30am, 24 January 2017, in the Tinda Creek Sand Quarry site office.

Key operational documents were reviewed, and evidence of compliance was sought through the interview process. Key documents were the various management plans required under the approval. Documentation included a combination of hard copy records and electronic records maintained by Hy-Tec, with records generally available during the audit. Additional records were provided subsequent to the onsite audit.

A site inspection was then conducted, and included inspection of roads and drainage structures, inspection of access control measures implemented, and inspection of quarrying operations. At the time of audit, activities being undertaken included sand screening and loading operations.

A closing meeting was held at 4.30pm on 24 January 2017 where the preliminary audit findings were presented. Where aspects of the audit remained unresolved, Hy-Tec was requested to provide additional information. This information was provided on 1 May 2017.

2.6 Audit Compliance Definitions

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

2.7 Issues to be considered in reviewing this report

This audit was based on a review of compliance with the approval conditions for the operation of Tinda Creek Sand Quarry.

In particular, the audit focused on the implementation of measures described in the various Environmental Management Plans to manage the impacts of the activities on the surrounding environment. The checklist appended to this report identifies those compliance issues that could be assessed given the stage of the project.

By its very nature an audit does not guarantee full compliance of all aspects of the project with the undertakings of the Management Plans and associated documentation. However; in the opinion of the auditor, the extent and

scope of the field inspection together with the records maintained by Hy-Tec were sufficient evidence to verify general compliance of the activities with the requirements of the conditions of approval.

3 AUDIT FINDINGS

3.1 Overview

Specific activities being undertaken at the time of audit were:

- Loading and haulage of material from the quarry to the processing plant;
- Screening of material;
- Loading of trucks for dispatch; and
- Operation of Front end loader.

The attached checklists record the outcomes of the audit process. Five non-compliances and four administrative non-compliances were identified, where compliance with the conditions of consent, EPL, or management plans could not be verified. The following sections summarise key findings for review and action by Hy-Tec as appropriate.

It should be noted that management plans for the project had not been finalised at the time of audit, with ongoing discussions between the quarry and agencies.

3.2 Development Consent (SSD_4978)

Schedule 2 – Administrative Controls

The site had implemented processes to generally ensure compliance with the administrative control requirements of the conditions of consent was verified. Review of administrative controls did not identify any non-compliance.

One administrative non-compliance was raised in relation to the requirement to ensure that extraction operations are not undertaken beyond 15 m below the natural ground surface. While it was reported that extraction depths were regularly measured, no records were available to verify that extraction was not below 15 metres.

Schedule 3 – Environmental Performance Conditions

All of the required management plans had been developed and provided to DPE for review and approval. A Biodiversity Offset area had not been agreed at the time of audit; however, discussions with OEH are ongoing, and this is not viewed as a non-compliance.

One administrative non-compliance was identified in relation to environmental performance conditions. The company had implemented a process for communicating site requirements to truck drivers, including requirements for covering of loads. While requirements are communicated to truck drivers, a process to verify that loads are covered or that they are cleaned of material that may fall on the road had not been implemented.

Schedule 4 – Additional Procedures

Conditions of Approval under Schedule 4 Additional Procedures had not been triggered.

Schedule 5 –Environmental Management, Reporting and Auditing

Processes had been implemented to comply with environmental management requirements. An Environmental Management Strategy had been documented and implemented, management plans prepared, an annual review process implemented and a community consultative committee established.

One non-compliance was identified in relation to environmental reporting. While required environmental monitoring had been conducted and results available on site, reports had not been made available on the company website as required by condition No 8.

3.3 Environmental Protection Licence (EPL 12007)

An EPL had been issued for the operations, which places requirements on the site for the management of air, noise, water, and complaints. The site had complied with requirements for monitoring of air, and complaints management and reporting processes have been implemented and met.

Review of the NSW EPS public register found that a non-compliance had been raised in the 2015-2016 monitoring period, as reports detailing the results of requisite monthly stormwater inspections had not been submitted to the EPA. This issue is addressed through the NSW EPA non-compliance process and hence has not been raised again in this report.

A non-conformance against licence requirements was raised in relation to noise management. While noise monitoring had been conducted, the noise monitoring report had not been provided to NSW EPA within three weeks of completion of the monitoring. This issue was raised as administrative non-compliance A-03.

3.4 Air Quality Management Plan

The audit found that the site was in compliance with requirements of the Air Quality Management Plan.

3.5 Water Management Plan

While compliance with aspects of the Water Management Plan was found, three non-compliances and one administrative non-compliance were raised in respect to water management. Records were not available to show that monitoring of drains and dredge pond levels had been conducted as required of the Water Management Plan. These issues were raised as non-compliances.

While the Water Management Plan required six monthly updates delineating the extent of quarrying and the area that drains to the quarry water management system, it was reported that, due to the size and visibility across the site, visual inspection is all that is required. However, no records were available to show that visual monitoring had been conducted. This issue was raised as an administrative non-compliance.

3.6 Landscape Management Plan

Quarrying operations have been conducted within the existing disturbed area, and hence requirements for conducting preclearance surveys and inspections of trees had not been triggered.

Topsoil stockpiles had been established and erosion and sediment controls established. It was reported that topsoil was rotated every 3 weeks and used for bunding and rehabilitation zones, and hence seeding and stabilisation of topsoil stockpiles was not conducted.

At the time of audit, only minor landscaping had been undertaken. The former silt pond had been partially rehabilitated with vegetation establishment and minor reshaping around the perimeters had been undertaken.

The Landscape Management Plan identifies requirements for the monitoring of weeds and feral animals on a routine basis. However, no records of monitoring of weeds and feral animals as required were available. These issues were raised as non-compliances.

3.7 Noise Management Plan

Attended noise monitoring had been conducted during operational periods of the quarry in accordance with the requirements of the noise management plan and the EPL. Unattended noise monitoring was conducted prior to

works commencing on site to measure traffic noise associated with dispatch operations. Noise monitoring results indicated the site was complying with noise limits.

3.8 Transport Management Plan

The audit found that the site was in compliance with requirements of the Transport Management Plan.

3.9 Heritage Management Plan

The audit found that the site was in compliance with requirements of the Heritage Management Plan. No unexpected heritage finds had been identified.

3.10 Environmental Management Strategy

An environmental management strategy had been developed and implemented for the site. The audit found that the site was in compliance with requirements of the environmental management strategy.

3.11 Areas of Non-compliance

Issue No.	Condition	Requirement	Issue sighted
N-01	Schedule 5 – Environmental Management, Reporting and Auditing 8	The Applicant shall 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.	Environmental monitoring records (noise, water, air) were not available on the company website.
N-02	Schedule 5 – Environmental Management, Reporting and Auditing 8	Within a year of the date of this consent, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission 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, Council 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 Licence (including any assessment, plan or program required under these approvals); (d) review the adequacy of any approved strategy, plan or program required under these approvals; and (e) recommend measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under these approvals.	The independent environmental audit was not conducted with 12 months of the date of consent for the development.

N-03	Water Management Plan Cl. 2.2.3	All new diversion drains will be constructed and established with a stable vegetative cover in advance of being required to divert clean runoff around the extraction area. Once commissioned the diversion drains will remain in place to divert upslope runoff around the quarry site until the downslope quarry areas they are diverting runoff around are rehabilitated and have achieved a stable vegetative cover suitable to accept upslope runoff.	Vegetative cover had not established before use of diversion drains.
N-04	Water Management Plan Cl. 4.3	Dredge pond levels recorded on a monthly basis and results reviewed against trigger levels.	Records of monitoring of dredge pond levels were not available.
N-05	Landscape Management Plan Cl. 3.2.2	Complete weed of the biodiversity offset area, buffer zones, and rehabilitation areas every three months.	No record to verify weed inspections for the biodiversity offset area, buffer zones, and rehabilitation areas had been conducted.
N-06	Landscape Management Plan Cl. 3.2.3	Complete feral animal inspections of the biodiversity offset area, buffer zones, and rehabilitation areas every three months.	No record to verify feral animal inspections for the biodiversity offset area, buffer zones, and rehabilitation areas had been conducted.

3.12 Areas of Administrative Non-compliance

Issue No.	Condition	Requirement	Issue sighted
A-01	Schedule 2 Condition of Approval 6	The Applicant shall not: (a) extract or process more than 300,000 tonnes of sand in any calendar year; or (b) undertake extraction operations beyond 15 m below the natural ground surface.	While it was reported that extraction depths are physically measured on site with a tape measure – no record maintained to show that the depth of extraction was not beyond 15m below natural ground surface.
A-02	Environmental Performance Conditions 23	The Applicant shall ensure that: (a) all laden trucks have appropriate signage, including a contact phone number, so they can be easily identified by road users; (b) all laden trucks entering or exiting the site have their loads covered; (c) all laden trucks exiting the site are cleaned of material that may fall on the road, before leaving the site; (e) no trucks queue at the entrance to the site before 6 am.	While requirements are communicated to truck drivers, a process to verify that loads are covered or that they are cleaned of material that may fall on the road had not been implemented.

A-03	Environmental Protection Licence R4.1	The licensee must submit the results of any noise monitoring undertaken in accordance with the requirements of Condition M5.1 or Condition M5.2 to the EPA within three weeks of the noise monitoring being undertaken.	Noise monitoring report was not submitted within 3 weeks of the noise monitoring being undertaken.
A-04	Water Management Plan Cl. 5.1	Six monthly updates delineating the extent of quarrying and the area that drains to the quarry water management system.	While it was reported that, as the area is significantly less than 40 ha, a visual inspection is all that is required, no records of inspections were available.

3.13 Areas of compliance

All other relevant conditions audited were found to be either compliant or not applicable. Refer to the audit checklist provided as an attachment for full details of compliance.

4 CONCLUSIONS

On the basis of the findings of this audit, it is considered that Hy-Tec have complied with the requirements of the approval conditions and requirements of the environmental management plans for activities carried out to date. Six non-compliances were identified, along with four administrative non-compliances. HY-Tec should ensure that actions are identified and implemented to address the findings contained within this audit to enable compliance with the development obligations and ensure environmental impacts of the developments are appropriately managed.

ATTACHMENTS

- ✓ Auditor CV
- ✓ Audit Checklists

CIRCULATION

- ✓ Umwelt (Australia)(Pty Ltd
- ✓ AQUAS Pty Ltd



CV – James Hart

CURRENT POSITION

Senior Project Manager



QUALIFICATIONS

Newcastle University, Graduate Diploma in Occupational Health and Safety, 2003

Newcastle University, Graduate Diploma in Environmental Science, 1997

Newcastle University, Bachelor of Science (Chemistry), 1981

Exemplar Global - Lead Quality, OHS, Environmental Auditor No. 12105

Major Projects

- ✓ Lead Work Health and Safety Auditor – Audit Panel for ACT Government Procurement and Capital Works
- ✓ Lead Quality, Safety, Environmental and Risk Auditor – Sydney Trains SEQR Audit Panel
- ✓ Lead Quality, Safety, Environmental and Risk Auditor – NSW TrainLink
- ✓ Lead WHS Auditor - TfNSW Lead Auditor Support Resource Panel
- ✓ Lead Quality, Safety, Environmental Auditor – Transgrid Audit Panel
- ✓ Quality, safety and environmental representative for the
- ✓ Lead Quality, WHS and Environmental Auditor – Roads and Maritime Services Audit Panel
- ✓ Lead Quality, WHS and Environmental Auditor – SAI Global Assurance Services
- ✓ Independent Certifier's Safety Manager – North West Rail Link - Tunnels & Station Civil Works
- ✓ Independent Verifier's audit and compliance consultant – Hexham Relief Roads Project
- ✓ Independent Certifier's Safety Manager – Westconnex project.

Relevant Experience

James is an Exemplar Global certified Lead Management Systems Auditor and has been certified to audit quality, environmental and OHS Management systems, as well as integrated management systems. He has conducted over 300 audits for SAI Global (certification, surveillance and recertification) covering OHS, Quality and Environmental management systems in Australia, the United Kingdom and Europe.

James is the a lead auditor on the audit panels for ACT Government, Transgrid, Sydney Trains, South Australian Rail Commissioner, Department of Defence WHS Panel and NSW Roads and Maritime Services. James is also the Independent Certifier's Safety Review Manager for the NWRL, Sydney Light Rail, Westconnex and the Northconnex projects.

James has experience in conducting quality, environmental and occupational health and safety system and compliance audits across a range of industries, including building construction, road construction, rail, heavy industrial, light industrial and commercial developments. Audits have included all aspects of the management process, including design, construction, commissioning, operations and maintenance. Services provided include the assessment of project documentation against legislative and project requirements, and verification of implementation of project requirements. Examples include:

- ✓ Assessment of contractor documentation for prequalification with NSW Roads and Maritime Services;
- ✓ Participation in design reviews for projects on behalf of TfNSW (e.g. RLA Audit Assignment "CP13-30 Design Management - Schofield Road Underpass and Urban & landscape design).
- ✓ Lead Environmental auditor – 3rd Party Environmental audits on behalf of Gladstone Ports Corporation for the Western Basin Dredging and Disposal project.
- ✓ Lead Environmental auditor – 3rd Party Environmental audits on behalf of Gladstone Ports Corporation for the WICET dredging project.
- ✓ Environmental auditor – Independent audit of the Mackas Sands Sand Extraction, Lot 218 and Lot 220, Salt Ash on behalf of the NSW Department of Planning and Infrastructure.
- ✓ Environmental auditor – New Bridge over Sportmans Creek at Lawrence, on behalf of RMS.

- ✓ Lead WHS and Environmental audit, NSW TrainLink internal audit program 2014-2015.
- ✓ Quality, safety and environmental auditor – Mayfield Intermodal Remediation project.
- ✓ Quality, safety and environmental auditor – Kooragang Island Waste Emplacement Facility remediation project.

James had also undertaken WHS and environmental inspections on behalf of clients to monitor implementation of WHS and environmental controls on worksites. Project where inspection services have been provided include:

- ✓ Gerringong Upgrade – Mt Pleasant to Toolijooa Road Project, NSW RMS;
- ✓ Nabiac Upgrade project, NSW RMS;
- ✓ Hunter Expressway project, NSW RMS;
- ✓ Five Islands project, NSW RMS;
- ✓ NIER building construction project, University of Newcastle.

This wide range of experience has provided James with a broad skill range of auditing skills in the quality, OHS and environmental management sectors.

Experience History

2011 – Present: AUSTRALIAN QUALITY ASSURANCE & SUPERINTENDENCE (AQUAS)

Senior Consultant / SEQR Auditor

- ✓ Certified independent environmental audit for the Western Basin Dredging and Disposal project, and the WICET Coal Berth Dredging project in Gladstone Queensland.
- ✓ Independent audits of the Mackas Sands development to assess compliance with the Department of Planning and Environment's conditions of approval
- ✓ Lead Quality, Safety, Environmental and Risk Auditor – Sydney Trains SEQR Audit Panel
- ✓ Independent audit of Mackas Sands Sand Extraction, Lot 218 and Lot 220, Salt Ash on behalf of the NSW Department of Planning and Infrastructure.
- ✓ HSE audits of various construction projects on behalf of Transgrid.
- ✓ QHSE audits on behalf of the South Australian Department of Transport, Environment and Infrastructure.
- ✓ Environmental and Health and safety audits of road construction projects on behalf of NSW Roads and Marine Services;
- ✓ Health Safety and Environmental audits on behalf of the project verifier for the Hunter Express and Kempsey bypass projects.
- ✓ Development of OHS management system for Williams River Steel to enable certification to AS4801:2001 and Federal Safety commissioner accreditation.
- ✓ QHSE audits of projects associated with the rehabilitation of lands associated with the former BHP site in Newcastle, NSW.
- ✓ QHSE Audits of rail bridge replacement projects on behalf of Transfield Services Limited.
- ✓ Environmental audit of the Curragh North Coal Mine to assess compliance with the requirements of the EPBC conditions of approval.

2008-2010: JAMES HART CONSULTING

- ✓ Provided Quality, Environmental, and OHS auditing services to UK certification authorities.
- ✓ Conducted preliminary document review (gap analysis), certification, surveillance and recertification audits were undertaken both within the UK and Europe, and were conducted against the requirements of ISO 9001:2008, ISO 14001:2004, ISO 14001:2004RC, and OHSAS 18001:2007.
- ✓ Provided auditor verification services, verifying auditors on behalf of SAI Global throughout Europe.

2000-2004; May 2007 - Nov 2008: GHD PTY LTD

Senior Environmental Chemist

- ✓ RTA Audit Panel for conducting OH&S and environmental audits of RTA projects.
- ✓ Department of Planning approved Environmental Auditor for the Sandgate Rail Separation project.
- ✓ Co-ordination of environmental projects, and occupational hygiene and hazardous materials surveys.
- ✓ OHS, Quality and EMS coordinator for the office, with responsibility for ensuring that quality and environmental management procedures and practices were implemented and maintained.

- ✓ Management of a range of environmental monitoring projects including site contamination assessments, and quarterly monitoring programs for landfill sites.

Sep 2007 – May 2008: SAI GLOBAL

Management Systems Auditor

- ✓ Conducted Quality, OHS and Environmental management systems audits for companies certified by SAI Global against the requirements of ISO 9001:2000, ISO 14001:2004, AS/NZS 4801:2001, and OHSAS 18001. Audits conducted included preliminary document review (gap analysis), certification, surveillance and recertification audits.

Mar 2004 – Sep 2006: URS Australia

Senior Environmental Chemist

- ✓ Conducted occupational health and safety and environmental due diligence and compliance audits and inspections for clients.
- ✓ NSW Roads and Traffic Authority (RTA) panel for conducting OH&S and environmental audits.
- ✓ Audit panel as a Lead Health Safety and Environmental Auditor to conduct HSE audits of gas and electrical projects for AGL Energy Ltd.
- ✓ Department of Planning approved auditor responsible for conducting annual environmental compliance audits of Port Waratah Coal Services – Kooragang Stage Three Expansion for compliance with the department of Planning's conditions of consent.
- ✓ Co-ordination of environmental noise monitoring projects for URS in NSW
- ✓ Verifiers Environmental and OHS representative for the Nabiac Upgrade project, a major road construction project on the mid north cost of NSW.
- ✓ OHS Advisor and representative for the Newcastle Office, with responsibility for the implementation of the OHS program and coordination of OHS initiatives in the Office.

1994 – 2000: METFORD LABORATORIES

Senior Environmental Chemist

- ✓ Co-ordination of sampling programs for environmental and occupational hygiene purposes.
- ✓ Management of dust monitoring programs for various mines in the Hunter Valley.
- ✓ Management of water (surface and groundwater) monitoring programs for various mines and industry in the Hunter Valley.
- ✓ Sampling and analysis of soils, waters, and airborne contaminants.
- ✓ Management of environmental noise monitoring programs and workplace surveys for occupational noise.

1989- 2004: GENKEM PTY LTD

Plant Chemist

- ✓ Management of the laboratory operations for the site.
- ✓ Investigations into the use of metal coagulants and polyacrylamide flocculants for the clarification of process and waste waters from the mining and food processing.
- ✓ Responsible for ensuring EPA licence requirements for the site were met.

2004 – 1989: CSR WOOD PANELS

Plant Chemist

- ✓ Responsible for supervising a group of seven concerned with materials testing, press plate preparation, process material additions, effluent treatment and waste board recovery.
- ✓ Led and assisted in several investigations aimed at improving product quality, and technical investigations relating to new product development.

1977- 1982: BHP LABORATORIES

Chemistry Degree Trainee

- ✓ Employed as a Chemistry Degree Trainee and later as a chemist in the Newcastle Steelworks laboratory.
- ✓ Analysis of raw materials and products associated with the steel making process.

5 Audit Checklist

CONDITIONS OF APPROVAL – SSD-4978

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
Schedule 2– Administrative Controls					
Obligation to Minimise Harm to the Environment					
1.	1	In addition to meeting the specific performance measures and criteria established under this consent, the Applicant shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the development.	No material harm to the environment as a result of the operations had been reported.	C	
Terms of Approval					
2.	2	The Applicant shall carry out the development generally in accordance with the: <ul style="list-style-type: none">• EIS;• Statement of Commitments; and• conditions of this consent.	Results of this audit show that the development has been carried out in general accordance with requirements.	C	
3.	3	If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency.		Note	
4.	4	The Applicant shall 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; (b) any reviews, reports or audits undertaken or commissioned by the Department regarding compliance with this consent; or (c) the implementation of any actions or measures contained in these documents.	The audit results show that the applicant had complied with the requirements of the Secretary.	C	

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
Limits of Consent					
5.	5	Quarrying operations may take place on site until 31 December 2045	Current year 2017	C	
6.	6	The Applicant shall not: (a) extract or process more than 300,000 tonnes of sand in any calendar year; or (b) undertake extraction operations beyond 15 m below the natural ground surface.	Current extraction 151916 T for Calendar year 2016. Reported that levels are physically measured on site with a tape measure – no record maintained to show that the depth of extraction has been verified.	A	01
7.	7	The Applicant shall not: (a) transport more than 300,000 tonnes of sand from the site in a calendar year; and (b) dispatch more than 34 trucks per day or receive more than 34 trucks per day, averaged over a calendar month	1552744 T despatched for Calendar year 2016. Records maintained through weighbridge management system – Monthly average < 15/mth	C	
8.	8	Within 6 months of the date of this consent, or as otherwise agreed by the Secretary, the Applicant shall surrender the development consent (DA 0134/95) for the existing operations on the site in accordance with Section 104A of the EP&A Act	Surrendered 7/12/2015 by Birdon Contracting	C	
Structural Adequacy					
9.	9	The Applicant shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.	No new building as a result of the current development consent.	NT	
Demolition					
10.	10	The Applicant shall ensure that all demolition work is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.	No demolition has occurred.	NT	

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
Protection of Public Infrastructure					
11.	11	<p>The Applicant shall:</p> <ul style="list-style-type: none"> (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development. <p>Note: This condition does not apply to damage to roads caused as a result of general road usage.</p>	No damage to public infrastructure had been reported.	NT	
Operation of Plant and Equipment					
12.	12	<p>The Applicant shall ensure that all the plant and equipment used at the site is:</p> <ul style="list-style-type: none"> (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner. 	<p>Maintained electronically in 'Gearbox'. Hardcopy records of service and repairs maintained on site. (moving across to electronic system - 'Gearbox').</p> <p>Records available for dozer, etc. Records for service of dredge sighted - 250hr service 7/12/16. Verified for Hyundai Loader (hard copy) Caterpillar D7R – in Gearbox</p>	C	
Updating and Staging Strategies, Plans or Programs					
13.	13	<p>With the approval of the Secretary, the Applicant may submit any strategies, plans or programs required by this consent on a progressive basis.</p> <p>To ensure the strategies, plans or programs under the conditions of this consent are updated on a regular basis, the Applicant may at any time submit revised strategies, plans or programs to the Secretary for approval.</p> <p>With the agreement of the Secretary, the Applicant may prepare any revised strategy, plan or program without undertaking consultation with all parties under the applicable condition of this consent</p>	All plans have been submitted to DP&E.	NT	
14.	14	Until they are replaced by an equivalent strategy, plan or program approved under this consent, the Applicant shall implement the existing strategies, plans or programs for the site that have been approved under DA 0134/95	Currently operating under the revised plans as submitted to DP&E.	NT	

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
Production Data					
15.	15	The Applicant shall: (a) provide annual quarry production data to DRE using the standard form for that purpose; and (b) include a copy of this data in the Annual Review (see condition 4 of schedule 5).	Report sighted. Submitted 30/11/16.	C	
Developer Contributions					
16.	16	The Applicant shall pay Council road maintenance contributions consistent with Council's <i>Section 94 Contributions Plan</i> , or its latest version.	Road levy paid on a monthly basis. Records of payment sighted July 2016 – January 2017.	C	

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
Schedule 3 - ENVIRONMENTAL PERFORMANCE CONDITIONS					
Identification of Approved Extraction Limits					
17.	1	Prior to undertaking extraction operations under this consent, the Applicant shall, the Applicant shall: (a) engage a registered surveyor to mark out the boundaries of the approved limits of extraction within the development area; and (b) submit a survey plan of these boundaries with applicable GPS coordinates to the Secretary.	Boundary limits have been surveyed and pegged. Provided by Degotardi Smith and Partners 30/06/15. Submitted 30/11/16.	C	
18.	2	While extraction operations are being carried out, the Applicant shall ensure that these boundaries are clearly marked at all times.	Pegs are provided around the site to delineate the boundaries and internal work areas	C	
Hours of operation					
19.	3	The Applicant shall comply with the operating hours set out in Table 1 Table 1: Operating Hours Activity Operating Hours Extraction operations and deliveries 7 am to 6 pm, Monday to Friday 7 am to 3 pm, Saturday No activities on Sundays or Public Holidays Dispatch 5 am to 10 pm, Monday to Friday 6 am to 3 pm, Saturday Construction activities 7 am to 6 pm, Monday to Friday 8 am to 1 pm, Saturday No construction to be undertaken on Sundays or Public Holidays Maintenance activities 24 hours a day, 7 days per week, providing maintenance activities are inaudible at any privately-owned residence	Hours are included in induction Truck drivers cannot load prior to 7am. TBT at 6.30am to 4pm Work commence at 7am. Finish production at 3.30pm. Weighbridge system locked out before 5am and after 10pm. Records reviewed for November 2016 – Showed first load ~5.10 am with loading completed before 15.30.	C	

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
Noise Criteria					
20.	4	<p>The Applicant shall ensure that the noise generated by the development does not exceed the criteria in Table 2 (Table 2: Noise criteria dB(A))at any residence on privately-owned land.</p> <p>Noise generated by the development is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy. Appendix 6 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.</p> <p>However, these criteria do not apply if the Applicant has an agreement with the relevant landowner to generate higher noise levels, and the Applicant has advised the Department in writing of the terms of this agreement.</p>	<p>Noise monitoring conducted in July 2016. Report issued in August 2016 reported that noise levels at the one residential location required to be monitored were below the noise limits stipulated in the EPL.</p>	C	
Operating Conditions					
21.	5	<p>The Applicant shall:</p> <ul style="list-style-type: none"> (a) implement all reasonable and feasible mitigation measures to minimise the construction, operational and road noise of the development; (b) regularly assess noise monitoring data and modify and/or stop operations on site to ensure compliance with the relevant conditions of this consent; (c) minimise the noise impacts of the development during meteorological conditions when the noise criteria in this consent do not apply (see Appendix 6); (d) carry out noise monitoring to determine whether the development is complying with the relevant conditions of this consent; <p>to the satisfaction of the Secretary.</p>	<p>Report issued in August 2016 reported that noise levels at the one residential location required to be monitored were below the noise limits stipulated in the EPL.</p>	C	
Noise Management Plan					
22.	6	<p>The Applicant shall prepare and implement a Noise Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <ul style="list-style-type: none"> (a) be prepared in consultation with the EPA, and be submitted to the Secretary within 6 months of the date of this consent, unless the Secretary agrees otherwise; (b) describe the reasonable and feasible mitigation measures that would be implemented to ensure: <ul style="list-style-type: none"> • construction noise is minimised; • compliance with the relevant noise criteria and operating conditions in this 	<p>Noise management plan prepared and submitted for approval. Initial submission 30/10/15.</p> <p>Extension of time provided 10/10/15 for submission of plans.</p> <p>Reported that the plan had yet to be</p>	C	

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
		<ul style="list-style-type: none"> consent; best management practice is being employed; and the noise impacts of the development are minimised during meteorological conditions under which the noise criteria in this consent do not apply; <p>(c) describe the proposed noise management system on site; and</p> <p>(d) include a monitoring program that:</p> <ul style="list-style-type: none"> uses attended monitoring to evaluate the compliance of the development against the noise criteria in this consent; evaluates and reports on the effectiveness of the noise management system and the best practice noise management measures; and defines what constitutes a noise incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any noise incidents. 	approved by DP&E, with ongoing consultation on its final composition and make-up continuing.		

Air Quality Impact Assessment Criteria

23.	7	The Applicant shall implement all reasonable and feasible avoidance and mitigation measures so that particulate matter emissions generated by the development do not exceed the criteria in Tables 3 to 5 at any residence on privately-owned land.	<p>Dust suppression measures implemented on site. Water cart available. Sand is maintained in a wet condition to minimise dust generation.</p> <p>Road sealed into site between Putty Road and the weighbridge. Approved Air Quality Management Plan requires TSP and PM₁₀ monitoring to be conducted should complaints be received.</p> <p>Deposition dust monitoring conducted at two locations. ALS undertake sampling and analysis of dust deposition samples.</p>	C	
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Operating Conditions

24.	8	The Applicant shall: <ol style="list-style-type: none"> implement all reasonable and feasible measures to minimise the dust emissions of the development; minimise surface disturbance of the site; and 	<p>Dust control measures have been identified in the Air Quality Management Plan. Water cart available. Sand is maintained in a wet condition to</p>	C	
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AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
		c) monitor and report on compliance with the relevant air quality criteria in this consent.	minimise dust generation. Road sealed into site between Putty Road and the weighbridge.		

Air Quality Management Plan

25.	9	<p>The Applicant shall prepare and implement an Air Quality Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <ul style="list-style-type: none"> (a) be prepared in consultation with the EPA, and be submitted to the Secretary for approval within 6 months of the date of this consent, unless the Secretary agrees otherwise; (b) describe the measures that would be implemented to ensure: <ul style="list-style-type: none"> • compliance with the air quality criteria and operating conditions under this consent; and • best practice management is being employed (c) include an air quality monitoring program that: <ul style="list-style-type: none"> – evaluates and reports on: <ul style="list-style-type: none"> • the effectiveness of the air quality management measures; and • compliance with the air quality criteria and operating conditions; and – defines what constitutes an air quality incident, and includes a protocol for identifying and notifying the Department and relevant stakeholders of any air quality incidents. 	<p>Air Quality Management Plan prepared and submitted to DP&E. Initial plan submitted 30/10/16.</p> <p>Extension of time provided 10/10/15 for submission of plans.</p> <p>Reported that the plan had yet to be approved by DP&E, with ongoing consultation on its final composition and make-up continuing.</p> <p>.</p>	C	
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Meteorological Monitoring

26.	10	For the life of the development, the Applicant shall ensure that there is a suitable meteorological station operating in the vicinity of the site that complies with the requirements in the Approved Methods for Sampling of Air Pollutants in New South Wales guideline.	Meteorological station provided on site. Davis Advantage Pro 2.	C	
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AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
SOIL AND WATER					
Water Supply					
27.	11	The Applicant shall ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of operations under the consent to match its available water supply, to the satisfaction of the Secretary.	Water balance provided in the WQMP shows sufficient water on site for the project.	C	
Water Pollution					
28.	12	<p>The Applicant shall:</p> <ul style="list-style-type: none"> (a) comply with Section 120 of the POEO Act, unless an EPL authorises otherwise; (b) ensure that the catchment of the water management system is not larger than 40 ha, unless the Secretary agrees otherwise; (c) maintain the dredge and silt ponds to capture a 1 in 100 ARI storm event plus adequate freeboard to ensure no offsite discharge; and (d) ensure that the loss of groundwater and surface water to Tinda Creek is no greater than predicted in the EIS 	<p>Noted that a drone survey is planned to be conducted in January 2017 to measure the catchment area.</p> <p>Water Management Plan – Section 2.5 provides calculations for 1 in 100 year ARI storm event. Required to main at least 1 metre of freeboard in the dredge pond to maintain sufficient capacity.</p> <p>Based on 29 January 2017 LiDAR captured over the site, the closed water management system had an area of 20.6 ha or approximately 50% of the maximum allowed (see Figure 6.2 of WMP).</p>	C	
Water management Plan					
29.	13	<p>The Applicant shall prepare and implement a Water Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <ul style="list-style-type: none"> (a) be prepared by suitably qualified person/s approved by the Secretary; (b) be prepared in consultation with the EPA and NOW, and be submitted to the Secretary for approval within 6 months of the date of this consent, unless the Secretary agrees otherwise; (c) include a: Site Water Balance that includes: <ul style="list-style-type: none"> • details of: Quantity of water required to support operations; sources and security of water supply, clearly differentiating 	<p>Water quality management plan prepared and submitted for approval. Extension of time provided 10/10/15 for submission of plans.</p> <p>Reported that the plan had yet to be approved by DP&E, with ongoing consultation on its final composition and make-up continuing.</p>	C	

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
		<p>between surface water and groundwater, and taking into account rainfall variability; water use and management on site; reporting procedures; and measures to minimise clean water use on site;</p> <p>(d) Surface Water Management Plan, that includes:</p> <ul style="list-style-type: none"> • detailed baseline data on surface water flows and quality in water bodies that could be affected by the development; • a detailed description of the surface water management system on site including the: <ul style="list-style-type: none"> ◦ clean water diversion system; ◦ erosion and sediment controls; ◦ dirty water management system; and ◦ water storages; and • performance criteria, including trigger levels for investigating any potentially adverse • surface water quality impacts; • the measures that would be implemented to ensure compliance with the surface water • performance criteria and relevant operating conditions of this consent; • a program to monitor and report on: <ul style="list-style-type: none"> ◦ any surface water discharges; ◦ the effectiveness of the water management system; ◦ surface water flows and quality in local watercourses; A comparison of monitoring results with modelled predictions; <p>(e) Groundwater Management Plan, that includes:</p> <ul style="list-style-type: none"> include a Groundwater Monitoring Program, that includes: • detailed baseline data on groundwater levels, yield and quality in local aquifers and • privately-owned groundwater bores; • performance criteria for surrounding aquifers, privately-owned groundwater bores, including trigger levels for investigating any potentially adverse groundwater impacts; • the measures that would be implemented to ensure compliance with the groundwater performance criteria and relevant operating conditions of this consent; • a program to monitor and report on: 			

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
		<ul style="list-style-type: none"> ○ groundwater inflows to the quarry pit (quarterly monitoring is required, unless otherwise agreed with the Secretary); ○ the impacts of the development on surrounding aquifers, privately-owned ○ groundwater bores and Tinda Creek; and ● a program to validate the groundwater model for the development, and compare monitoring results with modelled predictions; and <p>(f) include a Surface and Groundwater Contingency Strategy, that includes:</p> <ul style="list-style-type: none"> ● a protocol for the investigation, notification and mitigation of identified exceedances of the surface water and groundwater impact assessment criteria; ● measures to mitigate and/or compensate potentially affected landowners of privately owned land, including provision of alternative long-term supply of water to the affected landowner that is equivalent to the loss attributed to the development; and ● the procedures that would be followed if any unforeseen impacts are detected during the development. 			

Heritage

Heritage Management Plan

30.	14	<p>The Applicant shall prepare and implement a Heritage Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <p>(a) be prepared in consultation with OEH, and Aboriginal stakeholders for matters relating to Aboriginal heritage values;</p> <p>(b) be submitted to the Secretary for approval within 6 months of the date of this consent, unless the Secretary agrees otherwise;</p> <p>(c) describe the measures that would be implemented for:</p> <ul style="list-style-type: none"> ○ managing identified heritage objects, previously unidentified heritage objects or the ○ discovery of any human remains on site; and ensuring ongoing consultation with Aboriginal stakeholders in the conservation and management of any Aboriginal cultural heritage values on site. 	<p>Heritage Management Plan prepared and submitted for approval.</p> <p>Extension of time provided 10/10/15 for submission of plans. Plan submitted 10/12/15.</p> <p>Reported that the plan had yet to be approved by DP&E, with ongoing consultation on its final composition and make-up continuing.</p>	C	
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Landscape and Rehabilitation

Biodiversity Offset Strategy

Independent Audit Report - Tinda Quarry January 2017.docx		Audit Compliance Codes: C : Compliant; N : Non-compliance; A : Administrative non- compliance; O : Observation; NV : not verified; NT : Not Triggered; Note : No assessment of compliance required	Page 24
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AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #								
31.	15	<p>The Applicant shall implement the biodiversity offset strategy described in the EIS, as summarised and revised in Table 6, and shown conceptually in Appendix 5, to the satisfaction of the Secretary.</p> <p><i>Table 6: Biodiversity Offset Strategy (ha)</i></p> <table> <thead> <tr> <th>Area</th> <th>Offset Type</th> <th>Minimum</th> <th>Size (ha)</th> </tr> </thead> <tbody> <tr> <td>On-site</td> <td>Offset Area</td> <td>Existing vegetation to be enhanced</td> <td>106.6</td> </tr> </tbody> </table>	Area	Offset Type	Minimum	Size (ha)	On-site	Offset Area	Existing vegetation to be enhanced	106.6	<p>In discussions with OEH regarding the offset strategy. Area identified for offset.</p>	C	
Area	Offset Type	Minimum	Size (ha)										
On-site	Offset Area	Existing vegetation to be enhanced	106.6										
32.	16	<p>Within 2 years of this consent, unless otherwise agreed with the Secretary, the Applicant shall make suitable arrangements to provide appropriate long-term security for the offset area, to the satisfaction of the Secretary.</p> <p><i>Note: Mechanisms to provide appropriate long-term security to the land within the biodiversity offset strategy include a Biobanking Agreement, Voluntary Conservation Agreement or an alternative mechanism that provides for a similar conservation outcome. Any mechanism must remain in force in perpetuity</i></p>	<p>In discussions with OEH regarding the offset area. Consent date 10/04/2015</p>	NT									
33.	17	<p>Rehabilitation Objectives The Applicant shall rehabilitate the site to the satisfaction of the Secretary. The final landform must:</p> <ul style="list-style-type: none"> (a) be generally consistent with the proposed rehabilitation strategy in the EIS, and the final landform shown conceptually in Appendices 4 and 5. and (b) comply with the objectives in Table 7. 	<p>Rehabilitation has commenced in one area of the site. The former silt pond has been partially rehabilitated with vegetation establishment and minor reshaping around the perimeters of the site are ongoing.</p>	C									
34.	18	<p>Progressive Rehabilitation The Applicant shall rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance. Interim stabilisation measures must be implemented where reasonable and feasible to control erosion (both wind and water) in disturbed areas that are not active and which are not ready for final rehabilitation</p>	<p>Rehabilitation has commenced in one area of the site. The former silt pond has been partially rehabilitated with vegetation establishment and minor reshaping around the perimeters of the site are ongoing.</p>	C									
Landscape Management Plan													
35.	19	<p>The Applicant shall prepare and implement a Landscape Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <ul style="list-style-type: none"> (a) be prepared in consultation with OEH, and be submitted to the Secretary for approval within 6 months of the date of this consent, unless the Secretary agrees otherwise; (b) provide details of the conceptual final landform and associated land uses for the site; (c) describe how the implementation of the biodiversity offset strategy would be integrated with the overall rehabilitation of the site; 	<p>Landscape Management Plan prepared and submitted for approval 9/10/15. Reported that the plan had yet to be approved by DP&E, with ongoing consultation on its final composition and make-up continuing. Table 2.1 identifies how the Landscape Management Plan complies with the conditions of approval</p>	C									

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
		<p>(d) include detailed performance and completion criteria for evaluating the performance of the biodiversity offset strategy and rehabilitation of the site, including triggers for any necessary remedial action;</p> <p>(e) describe the short, medium and long term measures that would be implemented to:</p> <ul style="list-style-type: none"> o manage remnant vegetation and habitat on site and in the offset area; and o ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations in this consent; <p>(f) include a detailed description of the measures that would be implemented over the next 3 years (to be updated for each 3 year period following initial preparation of the plan) including the procedures to be implemented for:</p> <ul style="list-style-type: none"> o maximising the salvage of environmental resources within the approved disturbance area, o including tree hollows, vegetative and soil resources, for beneficial reuse in the enhancement of the offset area or site rehabilitation; o restoring and enhancing the quality of native vegetation and fauna habitat in the biodiversity and rehabilitation areas through assisted natural regeneration, targeted vegetation establishment and the introduction of fauna habitat features; o protecting vegetation and fauna habitat outside the approved disturbance area on-site; o minimising the impacts on native fauna, including undertaking pre-clearance surveys; o ensure only appropriate activities occur within a 40 m buffer of the recorded small-flower grevillea (<i>Grevillea parviflora</i> subsp. <i>parviflora</i>), (refer Figure 2 in Appendix 5); o establishing vegetation screening to minimise the visual impacts of the site on surrounding receivers; o ensuring minimal environmental consequences for threatened species, populations and habitats; o collecting and propagating seed; o controlling weeds and feral pests; o controlling erosion; o controlling access; and o managing bushfire risk; <p>(g) include a Koala Management Plan prepared generally in accordance with SEPP</p>			

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
		<p>44, the accompanying guidelines provided in <i>Circular B35 - State Environmental Planning Policy 44 - Koala Habitat Protection, the NPWS Policy and Procedure Statement No. 9 – Policy for the Translocation of Threatened Fauna in NSW</i> and the draft koala plan of management in the EIS;</p> <p>(h) include a program to monitor and report on the effectiveness of these measures, and progress against the performance and completion criteria;</p> <p>(i) identify the potential risks to the successful implementation of the biodiversity offset, and include a description of the contingency measures that would be implemented to mitigate these risks; and</p> <p>(j) include details of who would be responsible for monitoring, reviewing, and implementing the plan.</p>			
Conservation and Rehabilitation Bond					
36.	20	<p>Within 6 months of the approval of the Landscape Management Plan, the Applicant shall lodge a Conservation and Rehabilitation Bond with the Department to ensure that the biodiversity offset strategy and rehabilitation of the site are implemented in accordance with the performance and completion criteria set out in the plan and relevant conditions of this consent. The sum of the bond shall be determined by:</p> <p>(a) calculating the cost of implementing the biodiversity offset strategy over the next 3 years;</p> <p>(b) calculating the cost of rehabilitating the site, taking into account the likely surface disturbance over the next 3 years of extraction operations; and</p> <p>(c) employing a suitably qualified quantity surveyor or other expert to verify the calculated costs, to the satisfaction of the Secretary.</p>	Not lodged at this stage. Awaiting approval of the Landscape Management Plan.	NT	
37.	21	<p>Within 3 months of each Independent Environmental Audit (see condition 9 of schedule 5), the Applicant shall review, and if necessary revise, the sum of the Conservation and Rehabilitation Bond to the satisfaction of the Secretary. This review must consider the:</p> <p>(a) effects of inflation;</p> <p>(b) likely cost of implementing the biodiversity offset strategy and rehabilitating the site (taking into account the likely surface disturbance over the next 3 years of the development); and</p> <p>(c) performance of the implementation of the biodiversity offset strategy and rehabilitation of the site to date.</p>	This was the initial independent audit of the project.	NT	
Transport					

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
Access Road and Intersection Construction					
38.	22	The Applicant shall keep accurate records of all laden truck movements to and from the site (hourly, daily, and weekly, monthly and annually) and publish a summary of records on its website every 6 months.	Records are maintained in CAS – electronic system for managing weighbridge operations. Records were available on the company website. http://www.hy-tec.com.au/technical/p108.aspx	C	
Operating Conditions					
39.	23	The Applicant shall ensure that: (a) all laden trucks have appropriate signage, including a contact phone number, so they can be easily identified by road users; (b) all laden trucks entering or exiting the site have their loads covered; (c) all laden trucks exiting the site are cleaned of material that may fall on the road, before leaving the site; (e) no trucks queue at the entrance to the site before 6 am.	Instigated a code of conduct for truck drivers. Note Code of conduct states no trucks to queue at the entrance before 5am. Driver- Vehicle Check inspection sheets completed. – Two records for Jan 2017 show trucks did not have required identification and phone number displayed. No records to demonstrate that a process to verify that loads are covered or that they are cleaned of material that may fall on the road.	A	02
Access Road and Intersection Construction					
40.	24	Within 12 months from the date of this consent, unless the Secretary agrees otherwise, the Applicant shall upgrade the site access road and its intersection with Putty Road in accordance with applicable AUSTROADS standards, and to the satisfaction of RMS.	The site access road has been sealed. Undertaken by State Roads Design was in accordance with AUSTROAD and AS2890.2. No comments had been received from RMS on the upgrade work	C	
Transport Management Plan					

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
41.	25	<p>The Applicant shall prepare and implement a Transport Management Plan for the development to the satisfaction of the Secretary. This plan must:</p> <ul style="list-style-type: none"> (a) be prepared in consultation with RMS and Council, and be submitted to the Secretary for approval within 6 months of the date of this consent, unless the Secretary agrees otherwise; (b) include a drivers Code of Conduct for heavy vehicle drivers; and (c) describe the measures that would be put in place to ensure compliance with the drivers' code of conduct and include a program to monitor the effectiveness of the implementation of these measures. 	<p>Transport Management Plan prepared November 2016.</p> <p>Extension of time provided 10/10/15 for submission of plans.</p> <p>Reported that the plan had yet to be approved by DP&E, with ongoing consultation on its final composition and make-up continuing.</p>	C	
Visual					
42.	26	<p>The Applicant shall:</p> <ul style="list-style-type: none"> a) implement all reasonable and feasible measures to minimise the visual and off-site lighting impacts of the development on local residences and road users; and b) ensure that all external lighting associated with the development complies with the relevant Australian Standards, including Australian Standard AS4282 (INT) 1997 – Control of Obtrusive Effects of Outdoor Lighting or its latest version, to the satisfaction of the Secretary. 	<p>Site is in a remote location, and present operations on the site are distant and visually shielded from residents and road users so unlikely to have lighting impacts.</p> <p>It was acknowledged that as works progress closer to Putty Road, consideration will be given to the location and direction of security.</p>	NT	
Bushfire Management					
43.	27	<p>The Applicant shall ensure that the development is suitably equipped to respond to any fires on site; and assist the Rural Fire Service, emergency services and National Parks and Wildlife Service as much as practicable if there is a fire in the surrounding area.</p>	<p>Emergency response plan prepared for bushfires - Reviewed October 2015).</p> <p>Reported that the site has been actively involved in assisting the Rural Fire Service during previous bushfires.</p> <p>Fire extinguishers provided on site to respond to on site fires</p>	C	
Waste					

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
44.	28	The Applicant shall ensure that only certified VENM and ENM is imported to the site to aid in the minimisation of final voids	Records show material sourced from stockpile 200 Bourke Road Alexandria Records of stockpile monitoring conducted and verified as ENM. (27/05/15)	C	
45.	29	The Applicant shall manage on-site sewage treatment and disposal in accordance with the requirements of its EPL, and to the satisfaction of the EPA and Council.	Approval to operate an on-site system was reported to have been provided by Council. Hawkesbury Council Connection Letter – January 2013 shows Council had inspected the system and it was suitably connected.	C	
46.	30	The Applicant shall: (a) minimise the waste generated by the development; (b) ensure that the waste generated by the development is appropriately stored, handled, and disposed of; and (c) report on waste management and minimisation in the Annual Review, to the satisfaction of the Secretary	Waste generated includes general waste, waste oils. Waste oil taken by service technician. Annual review under preparation.	C	

AQUAS Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
Schedule 4 – Additional Procedures					
Notification of Landowners					
47.	1	As soon as practicable after obtaining monitoring results showing an exceedance of any relevant criteria in schedule 3, the Applicant shall notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the development is again complying with the relevant criteria.	No exceedences of relevant criteria have been recorded	NT	
Independent Review					
48.	2	If an owner of privately-owned land considers the development to be exceeding the relevant criteria in schedule 3, then he/she may ask the Secretary in writing for an independent review of the impacts of the development on his/her land. If the Secretary is satisfied that an independent review is warranted, then within 2 months of the Secretary's decision the Applicant shall: (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Secretary, to: <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 criteria in schedule 3; and• if the development is not complying with these criteria then identify the measures that could be implemented to ensure compliance with the relevant criteria; and (b) give the Secretary and landowner a copy of the independent review.	No requests had been received.	NT	

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
Schedule 5 – ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING					
Environmental Management Strategy					
49.	1	<p>The Applicant shall prepare and implement an Environmental Management Strategy for the development to the satisfaction of the Secretary. This strategy must:</p> <ul style="list-style-type: none"> (a) be submitted to the Secretary for approval within 6 months of the date of this consent; (b) provide the strategic framework for environmental management of the development; (c) identify the statutory approvals that apply to the development; (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development; (e) describe the procedures that would be implemented to: <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; • respond to emergencies; and (f) include: <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>Extension of time provided 10/10/15 for submission of plans.</p> <p>Reported that the plan had yet to be approved by DP&E, with ongoing consultation on its final composition and make-up continuing.</p>	C	

Adaptive Management

50.	2	<p>The Applicant shall assess and manage development-related risks to ensure that there are no exceedances of the criteria and/or performance measures in schedule 3. 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 shall, at the earliest opportunity:</p> <ul style="list-style-type: none">(a) take all reasonable and feasible measures to ensure that the exceedance ceases and does not recur;(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(c) implement remediation measures as directed by the Secretary; to the satisfaction of the Secretary.	No exceedances have been identified.	NT	
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Management Plan Requirements

51.	3	<p>The Applicant shall ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:</p> <ul style="list-style-type: none"> (a) detailed baseline data; (b) a description of: <ul style="list-style-type: none"> o the relevant statutory requirements (including any relevant approval, licence or lease o conditions); o any relevant limits or performance measures/criteria; and o 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; (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria; (d) a program to monitor and report on the: <ul style="list-style-type: none"> o impacts and environmental performance of the development; and o effectiveness of any management measures (see (c) above); (e) a contingency plan to manage any unpredicted impacts and their consequences; (f) a program to investigate and implement ways to improve the environmental performance of the development over time; (g) a protocol for managing and reporting any: <ul style="list-style-type: none"> o incidents; o complaints; o non-compliances with statutory requirements; and o exceedances of the impact assessment criteria and/or performance criteria; and (h) a protocol for periodic review of the plan. 	<p>Management plans have been prepared and submitted to DP&E for approval.</p> <p>Reported that the plan had yet to be approved by DP&E, with ongoing consultation on its final composition and make-up continuing.</p>	C	
Annual Review					
52.	4	<p>By the end of December each year, or other timing as may be agreed by the Secretary, the Applicant shall review the environmental performance of the development to the satisfaction of the Secretary.</p> <p>This review must:</p> <ul style="list-style-type: none"> (a) describe the development (including 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: <ul style="list-style-type: none"> • the relevant statutory requirements, limits or performance measures/criteria; • the monitoring results of previous years; and 	<p>2015 Annual review completed Submitted to DP&E 1/12/2016.</p> <p>Report for 2016 in compilation. To be submitted within 3 months.</p>	C	

		<ul style="list-style-type: none"> • the relevant predictions in the EIS; <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 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>			
Revision of Strategies, Plans and Programs					
53.	5	<p>Within 3 months of a modification to this consent or following the submission of an:</p> <p>(a) annual review under condition 4 above;</p> <p>(b) incident report under condition 7 below; or</p> <p>(c) audit report under condition 9 below,</p> <p>the Applicant shall review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Secretary.</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 development.</i></p>	<p>Management plans were yet to be finalised with DP&E. Landscape management plan and Water Management Plan updated August 2016. All other plans had been updated November 2016.</p>	NT	
Community Consultative Committee					
54.	6	<p>The Applicant shall establish and 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>Guidelines for Establishing and Operating Community Consultative Committees for Mining Developments</i> (Department of Planning, 2007, or its latest version), and be operating within 6 months of the date of this consent.</p>	<p>Consultative committee had been established.</p>	C	
Reporting					
55.	7	<p>The Applicant shall immediately notify the Secretary and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the Development, the Applicant shall notify the Secretary. Within 7 days of the date of the incident, the Applicant shall provide the Secretary and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.</p>	<p>No incidents have been recorded.</p>	NT	

56.	8	The Applicant shall 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.	Annual reports are provided on the company website. Currently not available on website. In the process of uploading onto the website. DP&E have required it to be uploaded by 28/02/17	N	01
Independent Environmental Audit					
57.	9	Within a year of the date of this consent, and every 3 years thereafter, unless the Secretary directs otherwise, the Applicant shall commission 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, Council 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 Licence (including any assessment, plan or program required under these approvals); (d) review the adequacy of any approved strategy, plan or program required under these approvals; and (e) recommend measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under these approvals. <i>Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Secretary.</i>	Date of consent 10/04/15. Noted that the previous DA was not surrendered until 10/12/15. conducted 24/01/17.	N	02
Access to Information					
58.	11	Within 6 months of the date of this consent, the Applicant shall: (a) make copies of the following publicly available on its website: <ul style="list-style-type: none">• the EIS;• current statutory approvals for the development;• approved strategies, plans and 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, which is to be updated monthly;• minutes of CCC meetings;• the annual reviews of the development (for the last 5 years);• any independent environmental audit of the development, and the Applicant's response to the recommendations in any audit;	The following information was available on the company website: <ul style="list-style-type: none">• EIS Documents;• Annual Return Jan-Dec 2015;• Environmental Protection Licence 18/12/15• Development consent 10/04/15;• 2013-7028 Approval Decision Notice;• Annual monthly Truck movements;• Community consultative committee members contact list;• Draft Minutes CCC Meeting 9/05/16• Draft Minutes CCC Meeting 17/10/16• Complaints register• Management Plans (Air, Heritage,	N	01

		<ul style="list-style-type: none">• any other matter required by the Secretary; and(b) keep this information up-to-date, to the satisfaction of the Secretary.	<ul style="list-style-type: none">Landscape, Noise, Transport, Water)• Environmental Management Strategy <p>While facility had been provided for uploading monitoring results, no monitoring results were available on the website.</p>		
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AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
ENVIRONMENTAL PROTECTION LICENCE					
59.	P.1.1	Has noise monitoring been conducted at the boundary of "receiver 1" as detailed in figure 6.1?	Noise monitoring conducted	C	
60.	L3	Does noise monitoring show compliance with the noise limits as shown for Point 1?	Noise monitoring showed no impact at the monitoring location.	C	
61.	L4	<p>Are the hours of operation consistent with the following: Unless permitted by another condition of this licence, activities at the premises must:</p> <ul style="list-style-type: none"> a) only be undertaken between 7:00 am and 6:00 pm Monday to Friday; b) only be undertaken between 7:00 am and 3:00 pm Saturday; and c) not be undertaken on Sundays or public holidays. <p>In addition to the limitations imposed by Condition L4.1, construction activities must not be undertaken:</p> <ul style="list-style-type: none"> a) between 7:00 am and 8:00 am Saturdays; and b) between 1:00 pm and 3:00 pm Saturdays. <p>In addition to the hours of operation specified in Condition L4.1, dispatch activities may be undertaken:</p> <ul style="list-style-type: none"> a) between 5:00 am and 10:00 pm Monday to Friday; and b) between 6:00 am and 3:00 pm Saturdays. <p>Maintenance activities may be undertaken at any time if those activities are inaudible at all residential premises.</p>		C	
62.	O2.1	All plant and equipment installed at the premises or used in connection with the licensed activity: <ul style="list-style-type: none"> a) must be maintained in a proper and efficient condition; and b) must be operated in a proper and efficient manner 	Records of maintenance and servicing of plant and equipment were available and sighted.	C	
63.	O3.1	The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	Sealed road to weighbridge Water cart on site for minimising dust generation Stockpiles are wet.	C	

64.	O3.2	The licensee must ensure that all laden vehicles exiting the site have their loads covered.	Requirements for covering of loads was communicated to drivers during the driver induction. During the site visit, it was noted that all trucks had their loads covered. No records to demonstrate that this requirement is monitored	A	02
Monitoring Conditions					
65.	M1.1	The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.	Noise monitoring report available.	C	
66.	M1.2	All records required to be kept by this licence must be: a) in a legible form, or in a form that can readily be reduced to a legible form; b) kept for at least 4 years after the monitoring or event to which they relate took place; and c) produced in a legible form to any authorised officer of the EPA who asks to see them	Records were available in electronic and hard copy format.	C	
67.	M1.3	The following records must be kept in respect of any samples required to be collected for the purposes of this licence: a) the date(s) on which the sample was taken; b) the time(s) at which the sample was collected; c) the point at which the sample was taken; and d) the name of the person who collected the sample.	The EPL requires noise monitoring only. Noise monitoring results were available.	C	
68.	M2.1	a) The licensee must undertake monthly inspections of the surface water system at the premises. b) The monthly inspections must: (i) be undertaken immediately upstream and downstream of the quarry disturbance area; (ii) include visual inspection of litter, oil and grease and sediment levels within the surface water system, including diversion channels; (iii) include visual inspection of the physical integrity of the surface water system, including any signs of erosion; and (iv) include visual inspection of the water level/ flow in Tinda Creek.	Records of environmental monitoring available – shows monthly inspections conducted Dec 2015 to Dec 2016. Photos upstream and downstream.	C	
Environmental Monitoring Conditions					

69.		<ul style="list-style-type: none"> a) The licensee must undertake monthly inspections of the surface water system at the premises. b) The monthly inspections must: <ul style="list-style-type: none"> (i) be undertaken immediately upstream and downstream of the quarry disturbance area; (ii) include visual inspection of litter, oil and grease and sediment levels within the surface water system, including diversion channels; (iii) include visual inspection of the physical integrity of the surface water system, including any signs of erosion; and (iv) include visual inspection of the water level/ flow in Tinda Creek. 	<p>Records of environmental monitoring available – shows monthly inspections conducted Dec 2015 0 Dec 2016.</p> <p>Photos upstream and downstream.</p>	C	
70.		The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	<p>Complaints register maintained in Cintillate and published on company website.</p> <p>One compliant received re slow moving truck.</p>	C	
71.	M3.1	The record must include details of the following: a) the date and time of the complaint; b) the method by which the complaint was made; c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; d) the nature of the complaint; e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and f) if no action was taken by the licensee, the reasons why no action was taken.	Register in Cintillate which includes required information.	C	
72.	M4.1	The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	Complaints line established	C	
73.	M4.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint	Number displayed on front gate	C	
Environmental Monitoring Conditions					
74.	5.1	To assess compliance with the noise limits specified within this licence, the licensee must undertake operator attended noise monitoring at each specified noise monitoring point in accordance with the table below.	Noise monitoring report completed showing attended monitoring was conducted.	C	
Reporting Conditions					
Annual Return Documents					

75.	R1.1	<p>The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:</p> <ul style="list-style-type: none"> a) a Statement of Compliance; and b) a Monitoring and Complaints Summary. <p>At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.</p>	Annual Return 2015-2016 - submitted on 8/07/16.	C	
76.	R1.5	<p>The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').</p>	Submitted 8 July 2016, due by 11 July 2016	C	
77.	R1.7	<p>Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:</p> <ul style="list-style-type: none"> a) the licence holder; or b) by a person approved in writing by the EPA to sign on behalf of the licence holder. 	Signed by the Company Director and Secretary.	C	
78.	R2.2	<p>The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred. (The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act).</p>		NT	
79.	R3.1	<p>Where an authorised officer of the EPA suspects on reasonable grounds that:</p> <ul style="list-style-type: none"> a) where this licence applies to premises, an event has occurred at the premises; or b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event. 		NT	
80.	R3.3	<p>The request may require a report which includes any or all of the following information:</p> <ul style="list-style-type: none"> a) the cause, time and duration of the event; b) the type, volume and concentration of every pollutant discharged as a result of the event; c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort; e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants; f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and g) any other relevant matters. 		NT	

81.	R4.1	The licensee must submit the results of any noise monitoring undertaken in accordance with the requirements of Condition M5.1 or Condition M5.2 to the EPA within three weeks of the noise monitoring being undertaken.	Not provided within 3 weeks to the EPA.	A	03
82.	R4.1	(i) a map of each noise monitoring location in relation to the noise source, including relevant distances; (ii) an analysis of the noise monitoring results; (iii) any detected exceedance of the noise limits specified in Condition L4.1; (iv) details of any remedial action taken or proposed to be taken in relation to any exceedance of the noise limits specified in Condition L4.1; (v) details of the prevailing meteorological conditions during the period when the noise monitoring was undertaken; and (vi) confirmation that noise monitoring was/was not undertaken in accordance with Condition M5.3	Map of monitoring locations is provided in the Noise report.	C	
83.	R4.1	R4.2 a) The licensee must submit a report to the EPA detailing the results of the surface water system inspection required under Condition M2.1. b) The report must: (i) include written details and photographic records of the results of the visual inspections required under Condition M2.1 b); (ii) include details of any actions undertaken or proposed to be undertaken by the licensee in response to the findings of the visual inspections, including no action; (iii) be submitted to the EPA within three weeks of the inspection being undertaken; and (iv) be submitted to: Manager Sydney Industry NSW Environment Protection Authority PO Box 668 Parramatta NSW 2124	Verified for August 2016, October 2016	C	
84.	G1.3	A copy of this licence must be kept at the premises to which the licence applies	Copy of licence available on site	C	

AIR QUALITY MANAGEMENT PLAN				
Regulatory Requirements				
Development Consent				
85.	2.2	The statement of commitments relevant to the AQMP, and where they are addressed in this document, is detailed in Table 2.2.		Note
Dust Concentration				
Air Quality Criteria				
86.	4.0	Goals for dust concentration are referred to as long term (annual average) and short term (24 hour maximum) goals. The goals relate to the total ambient dust concentrations and dust deposition levels, i.e. quarry contribution in addition to the background contribution. Condition 10 of Schedule 3 of the Development Consent specifies the air quality criteria for Tinda Creek Sand Quarry. The Development Consent criteria for particulate matter are outlined in Table 4.1.		Note
Air Quality Management Controls				
87.	5.0	In order to mitigate any potential air quality impacts from the operation, a number of air quality management controls will be implemented throughout the life of the operation. Additional controls include: <ul style="list-style-type: none"> ○ Visual inspections to ensure stockpile moisture content is maintained; ○ Sealing of the access road between Putty Road and the weighbridge ○ Use of a water cart on trafficked areas; ○ Minimising the area and duration of exposed soils; ○ Prompt replacement of stabilisation/ rehabilitation in accordance with the EMP. 	Daily workplace safety inspection checklist completed Includes tick box for excess dust issues.	C
Air Quality Monitoring				
88.	6.0	Hy-Tec will monitor dust deposition levels at one location to the west of the quarry. Further monitoring will be considered should community complaints be received regarding ambient particulate matter concentrations.	Two dust deposition monitoring at two locations No complaints received	C
89.	6.2	Meteorological monitoring will be conducted at the quarry site to obtain data as required by condition 10 of schedule 3 of the development consent.	Weather station on site, monitoring: <ul style="list-style-type: none"> • Rainfall • Wind speed and direction • RH 	C
90.		Has an independent review been required?		NT
Reporting				
External Reporting				

91.	7.1	A summary of air quality monitoring results will be provided in the Tinda Creek Sand Quarry Annual Review. The following information will be reported in the Annual Review in accordance with Condition 4 of Schedule 5 of the Development Consent.		NT	
92.	7.1	By the end of December each year Hy-Tec shall review the environmental performance of the development to the satisfaction of the Secretary. (see table 2.1)	Completed for 2015 in November 2016	C	
93.	7.1	Hy-Tec will publish air quality data on the Hy-Tec website.	Not currently on website	N	01
94.	7.1	Performance monitoring, which includes assessment of the effectiveness of air quality monitoring and compliance may be discussed at CCC meetings.	Discussed in general business 17/01/16.		
95.	7.2	Any exceedences of air quality criteria will be treated as environmental incidents.	N/A	NT	
96.	7.2	Have relevant government agencies and affected landowners been notified of any exceedance and provided regular monitoring results until results show compliance with criteria ?		NT	
97.	7.3	Complaints relating to air quality will be managed in accordance with the Tinda Creek Sand Quarry EMS requirements.	No complaints received	NT	
98.	8	The AQMP will be reviewed within 3 months of: The submission of the annual review; Submission of an incident report; Submission of an annual report.	Currently under review with DP&E. Awaiting approval	NT	
99.		Updated version of the AQMP will be made available on the Hy-Tec website	Current version available on website	C	

WATER MANAGEMENT PLAN						
Areas of Ecological Significance in Proximity to Quarrying						
100.	2.1	<p>A number of management controls have been identified to protect ecological values of the area. These are detailed in the Landscape Management Plan (Umwelt 2016) and include:</p> <ul style="list-style-type: none"> • establishment of buffers with a minimum width of 40 m between known Grevillea parviflora locations and disturbance areas for quarrying. No disturbance will occur within these buffer zones other than for the maintenance of weed and associated conservation activities • establishment of 'No Go' zones around the perimeter of approved quarry operations. This will include the delineation of buffer areas and the biodiversity offset area • establishment of at least 120 m of buffer between quarry operations and the adjoining National Park and Greater Blue Mountains World Heritage Area. 	<p>Buffer zones have been identified and survey markers have been erected to identify the limits of operations. Extraction is only conducted with the area which is bunded.</p>	C		
Clean Water Diversions						
101.	2.2.1	All diversion drains will be shaped and seeded with grass and riparian species within three months of commencement of construction of each of the sections of diversion drain. Flow and sediment controls such as rock weirs and silt fences will be placed in the drains to assist in the establishment of a stable vegetative cover within the drain and to enable drains to convey upslope runoff from the time they are constructed	Suitable diversion drains have been established.	C		
102.	2.2.3	All new diversion drains will be constructed and established with a stable vegetative cover in advance of being required to divert clean runoff around the extraction area. Once commissioned the diversion drains will remain in place to divert upslope runoff around the quarry site until the downslope quarry areas they are diverting runoff around are rehabilitated and have achieved a stable vegetative cover suitable to accept upslope runoff.	Diversion drains were being established around working areas. Noted vegetative cover not established before use. Permanent drain to be installed in near future.	N	03	
103.	2.2.3	All areas disturbed by quarry apart from the diversion drains will drain to the dredge ponds that will be formed by quarrying		C		
104.	2.2.3	If dispersive soils are encountered within the disturbance footprint they will be treated <i>in-situ</i> with gypsum or lime if possible. If they need to be excavated, gypsum or lime will be added and the treated material will be stockpiled away from overland flow paths and drainage lines. Dispersive soils will not be used in the construction of roads or bunds	No dispersive soils have been encountered	NT		
105.	2.2.3	Prior to quarrying being undertaken in Domain 1, the South Western Diversion will be extended to convey clean runoff upslope of the south-eastern edge of Domain 1 as shown on Figure 2.2 .	No quarrying has occurred in Domain 1	NT		

106.	2.2.3	Prior to quarrying in Domain 3, an additional clean water diversion drain will be constructed along the eastern boundary of Domain 4 and around the eastern, northern and western perimeters of Domain 3. Once this diversion drain is established, the existing diversion drain along the northern boundary of the existing extraction area will be removed to facilitate quarrying in Domain 3.		NT	
107.	2.2.3	Prior to quarrying in Domain 7, an additional clean water diversion will be constructed around the south-western perimeter of Domain 7 and will link up with the existing Southern Diversion Drain Extension as shown on Figure 2.2	Quarrying yet to commence in Domain 7.	NT	
108.	2.3	All diversion channels will be inspected at least monthly and after significant storm events.	Monthly inspections completed records sighted for .	Y	
109.	2.3	Any sediment build up that has potential to significantly reduce the hydraulic conveyance capacity of the diversion drain will be removed with the removed sediment being used as part of the final landform.	Generally well maintained. Noted that sediment had been removed from one drain.		
110.		Appropriate management methods for this dam such as incorporating gypsum or lime into the dispersive material or backfilling of the dam, will be explored in consultation with OEH and NPWS in regard to conservation and mitigation measures to be undertaken within the biodiversity offset area. The outcomes of these discussions will be implemented to help improve downstream water quality		NT	

Closed Water Management System

111.		The closed water management system including transfer pipes is fully contained within a bunded perimeter as shown on Figure 2.3 .	Area had been bunded with diversion drains to divert offsite water around the site.	C	
112.		A series of silt fences has also been constructed downslope side of access roads that are located around the perimeter of the quarry's closed water management system. These collect sediment laden runoff and minimise potential for sediment transport offsite from the access roads. These bunds and silt fences will continue to be regularly inspected as set out in Section 5.1 and maintained over the life of the quarry	Silt fences have been installed	C	

Water use and measures to minimise clean water on site

113.	3.3	Are records of water usage from the production bore available?	Monthly monitoring data sighted for Groundwater Usage from Production Bores	C	
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Groundwater monitoring

114.	4.1.2	Is groundwater monitoring undertaken at 19 locations?	Groundwater monitoring conducted for 11 wells in December 2016.	C	
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115.	4.2	Have additional groundwater monitoring bores been constructed (TP44 to TP51)	2 wells have been installed. 6 to be installed. Delayed as ground was too wet to access work area. (Rig was bogged).	C	
116.	4.2	Are continuous groundwater level monitors installed on bores and downloaded on a monthly basis?	In the process of installing continuous groundwater level monitors. 1 installed 31/08/16 (TP46). 2 installed 19/01/17 in existing bores	C	
Dredge Pond Inflows					
117.	4.3	Are dredge pond levels recorded on a monthly basis and results reviewed against trigger levels?	Dredge pond levels not recorded	N	04
Groundwater Quality Monitoring					
118.	4.4	Is groundwater quality monitored at 19 locations on a six monthly basis?	groundwater quality monitored at 11 locations – waiting for area to dry to enable access for drill rig to install further bores.	C	
119.		Are results reported annually, or immediately if trigger levels are exceeded?	Included in the Annual review for Jan-Dec 2015.	C	
Surface Water Monitoring and Reporting					
120.	5.1	Daily recording of rainfall at the quarry	Recorded on datalogger.		
121.	5.1	Monthly and after heavy rainfall (greater than 50 mm in 24 hours) visual inspections of diversion drains, catch drains, berms and silt fences to check for sediment build, channel stability and signs of potential for channel breaching	Daily inspection by supervisor Monthly reports for EPA inspections include quarry surface water system..	C	
122.	5.1	Are six monthly updates delineating the extent of quarrying and the area that drains to the quarry water management system.	Reported that as the area is significantly less than 40 ha that visual inspection for is all that is required. No records of visual inspections were available	A	04
123.		If Bureau of Meteorology issues a severe rainfall event warning for Tinda Creek area, an inspection of the water management system will be undertaken to make sure the system is well maintained provided that the Quarry Manager considers that the inspection can be undertaken safely	Reported that inspections are conducted.	C	

124.		Monthly inspections of Tinda Creek immediate upstream and downstream of quarry operations to check for potential sediment from quarry operations and sediment build up from upslope sources. This will include monthly water quality of any surface water that may be present upstream of the Southern Diversion or at the culvert under Putty Road. A series of reference photo monitoring sites (Photo Monitoring Sites 1 to 6) have been established as part of aquatic survey work that has been undertaken for Tinda Creek. Monthly inspections of Tinda Creek will include photographs taken at each of the six reference locations as shown on Figure 5.1 . These photos will capture status of the creek system and identify any areas where sediment has accumulated.	Monthly inspection records sighted. Inspections conducted on or around the end of each month. Records did not show any integrity issues or pollution in the creek	C	
125.		Surface water quality results obtained for flows in Tinda Creek will be analysed against ANZECC 2000 guidelines for trigger values in upland creek systems (i.e. pH – 6.5 to 7.5, turbidity – 2 to 25 NTU and Electrical Conductivity – 30 to 350 µS/cm). Site specific trigger values relevant to the intermittent and infrequent flow conditions in Tinda Creek and proximity to sedgelands will also be developed over time.	No sampling has occurred as no flows had occurred in the creek.	NT	
126.		Annual review of the water balance for the quarry (surface and groundwater). This review will include a comparison with the predictions set out in the EIS as required by Condition 12 of SSD 4978		NT	
127.		As set out in the Landscape Management Plan (Umwelt 2016), baseline aquatic monitoring was redone in November 2015 using the same monitoring sites as were used in the 2007 monitoring. As is the current situation with quarry operations, additional aquatic and ecological surveys of Tinda Creek and surrounds will be undertaken if there is a breach of the water management system that has potential to impact on the downstream environment. This practice will be continued over the life of the quarry.		NT	

Groundwater Reporting

128.	5.2	Establishment of five additional groundwater monitoring bores at the western end of Domain 1 and three additional bores at the northern edge of Revised Domain 3	Two wells have been installed at this stage. 6 further GW wells to be installed when access is available	C	
129.		Monthly groundwater level monitoring at all monitoring bores for the first three years of operation in the extended quarry area with monitoring frequency being reduced to quarterly water level monitoring after the initial three year period unless continuous monitors have been installed by this time	GW level monitoring conducted – results sighted for December 2016.	C	
130.		Monitoring of dredge pond levels on a monthly basis for the first three years of operation in the extended quarry area with monitoring frequency being reduced to being quarterly after the initial three years. This information along with daily rainfall monitoring will be used with groundwater level information and information regarding the area and perimeter of the dredge pond to estimate groundwater inflows to the dredge pond	Records of monthly dredge pond level not available.	N	04

131.	5.2	Monthly recording of water usage from production bores for the first three years of operation in the extended quarry area with monitoring frequency being reduced to being quarterly after the initial three years	Meter fitted to monitor groundwater usage. Monthly average usage data available.e.g. Month Average usage (ML) July 2016 0.015 August 2016 0.019 September 2016 0.027 October 2016 0.242 November 2016 0.203 December 2016 0.076	NT	
132.		Annual review of the groundwater model developed for the quarry. This will include comparison of actual results with modelled results for comparative rainfall conditions (i.e. dry, average or wet). This will also include a comparison of modelled versus actual groundwater levels and drawdown at the western and northern edges of the quarry (i.e. TP 44 to TP 51) and eastern edge of the quarry (TP 12 and TP 23) to provide an indication of potential for groundwater impacts downstream and upstream of the quarry including Greater Blue Mountains World Heritage Area and surrounding aquifers	Annual review for Jan-Dec 2015 includes comparison with trigger levels.	C	
133.	8.0	Have the trigger levels been exceeded, and the contingency plan required to be implemented?		NT	

LANDSCAPE MANAGEMENT PLAN

Development Consent

Protecting Vegetation outside the Disturbance Footprint

134.	3.1.1	Pre-clearance surveys will be undertaken prior to any vegetation being cleared during construction activities (refer to Section 3.1.2). The disturbance area will be demarcated for the duration of the Project to ensure that only areas within the approved maximum disturbance area of 46.8 ha are cleared. The	Clearing had not been conducted outside of the existing disturbed area to date.	NT	
135.	3.1.1	Demarcation of the approved disturbance area will be undertaken in consultation with a suitably qualified ecologist, with experience in the identification of small-flowered grevillea (<i>Grevillea parviflora</i> subsp. <i>parviflora</i>) and koala (<i>Phascolarctos cinereus</i>) habitat	Clearing had not been conducted outside of the existing disturbed area to date.	NT	

Pre Clearance Surveys

136.	3.1.2	Comprehensive pre-clearing surveys will be undertaken by a suitably experienced and licensed ecologist, no more than two weeks prior to felling. This will include marking of hollow-bearing trees, as well as any other notable features such as fallen timber, hollow logs or boulders suitable for salvage; active nests, dreys or dens requiring consideration; and seed-bearing trees for salvage. Surveys will include detailed searches for threatened flora and fauna species, including micro-bats and the koala. An additional pre-clearance survey of the vegetation to be cleared will be undertaken on the day of clearing (within 24 hours of clearing).	Clearing had not been conducted outside of the existing disturbed area to date.	NT	
137.	3.1.2	A pre-clearance survey targeting habitat of the threatened Rosenbergs goanna (<i>Varanus rosenbergi</i>) within the disturbance areas will be undertaken prior to ground disturbance (within seven days of the planned disturbance) to ensure that no burrows or termite mounds used by the species are present. The assessment should be undertaken by a suitably qualified and licensed ecologist.	Clearing had not been conducted outside of the existing disturbed area to date.	NT	
Tree Felling Procedure					
138.	3.1.3	Comprehensive pre-clearing surveys by a suitably experienced and licensed ecologist, no more than two weeks prior to felling. This will include marking of hollow-bearing trees, as well as any other notable features such as fallen timber, hollow logs or boulders suitable for salvage; active nests, dreys or dens requiring consideration; and seed-bearing trees for salvage. Surveys will include detailed searches for threatened flora and fauna species, including micro-bats	Clearing had not been conducted outside of the existing disturbed area to date.	NT	

Topsoil Management

Independent Audit Report - Tinda Quarry January 2017.docx		Audit Compliance Codes: C : Compliant; N : Non-compliance; A : Administrative non- compliance; O : Observation; NV : not verified; NT : Not Triggered; Note : No assessment of compliance required	Page 50
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139.	3.1.4	<p>Where topsoil is available, the following measures will be adopted to protect its quality and enhance rehabilitation outcomes:</p> <ul style="list-style-type: none"> • where possible, topsoil will be stripped when moist to help maintain viability and to reduce dust generation • where practical, topsoil will be direct-returned to reshaped areas within the existing quarry which are available for revegetation • topsoil stockpiles are to be located away from quarrying, traffic areas and watercourses and positioned within the perimeter of the closed water management system • topsoil stockpiles will be located within the project disturbance area and not within buffer or conservation areas adjacent to the quarry • level or gently sloping areas will be selected as stockpiles sites to minimise erosion and potential soil loss • silt fences will be established clear of drainage lines and will be installed at the base of stockpiles to prevent soil loss to the surrounding area • stockpiles will be generally less than 3 m high and will be set out in windrows to maximise surface exposure and biological activity • stockpiles to be kept longer than three months (i.e. approximately how long it will take to establish a stable vegetative cover) will be sown with a suitable cover crop to minimise soil erosion and invasion of weed species. Short term stockpiles will be sprayed with hydramulch or similar to stabilise the surface • weed growth will be monitored on a monthly basis and controlled either by removing by hand or spraying if large areas (i.e. >40 m²) are observed • prior to re-spreading, weed growth will be scalped from the top of the stockpiles to minimise the transport of weeds into rehabilitated areas • stockpiles will be located within the closed water management system and will be appropriately signposted to identify the area and minimise the potential for unauthorised use or disturbance. 	<p>Topsoil stockpiles had been established within the project disturbance area.</p> <p>Silt fences established.</p> <p>Not seeded or stabilised.</p> <p>No records of monitoring of regrowth.</p> <p>It was reported that the current topsoil stockpile was rotated every 3 weeks and used for bunding and rehabilitation zones.</p> 	C	
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Seed Collection and Propagation

140.	3.1.5	<p>Hy-Tec will implement a seed collection and propagation procedure in order to use local provenance species in rehabilitation. Seed from the site will be collected prior to or during clearing, or from within adjacent buffer zones and biodiversity offset areas, in consultation with an ecologist to ensure that the values of the buffer zones and offset areas are protected</p>	<p>Not implemented at this stage.</p> <p>Reported that the site was in discussion with Lithgow Landcare to manage this process.</p>	C	
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Operational Controls					
141.	3.2.1	Controlling Access Measures to be implemented to minimise unauthorised access to the offset areas and areas of remnant vegetation, including buffer zones and the biodiversity offset areas, will include the following: <ul style="list-style-type: none"> • installation of gates on the access points to the site, which will be closed to prevent access during nonoperational periods • demarcation of the site via means of signage to indicate that access is by authorised means only • demarcation of retained vegetation associated with the buffer zones and biodiversity offset areas using barrier fencing or similar 	Gates on site access No barrier fencing or similar provided around the buffer zones and biodiversity offset areas		
142.		The weed control program for the Tinda Creek Quarry will include: <ul style="list-style-type: none"> • quarterly inspections across the Project Area to identify and map density and extent of weed infestations including noting areas where weeds • contiguously cover an area of greater than 5 m by 5 m (25 m²) • undertake appropriate, targeted weed control activities (including minimum disturbance techniques such as hand removal where feasible), specific to the weed species identified • assess the effectiveness of the control programs and in response make any necessary modifications • general observations of the presence of weeds will also be made as part of monthly inspections of the drainage lines and closed water management system • targeted control of weeds across the Project Area, including buffer zones and biodiversity offset areas. 	No records of weed inspections being conducted	N	05
143.	3.2.2.1	Rehabilitation and Offset Areas. Weed monitoring will be undertaken on a monthly basis on rehabilitated areas at the time of drainage line inspections with a detailed survey of the site, including biodiversity offset areas and buffer zones being undertaken quarterly. Appropriate weed controls works will be undertaken following monitoring in the event that weed control works are required	No records of weed inspections being conducted	N	06

144.	3.2.2.2	The weed control works will also consider: <ul style="list-style-type: none"> • regular contact (annual) with neighbouring property owners to attempt to eradicate weed species from the surrounding area • minimisation of vegetation disturbance by reducing the number of tracks and using the same access routes • minimisation of clearing and other disturbance of vegetation associated with civil works • maintenance of topsoil stockpiles to eradicate weed infestation 	No contact with neighbouring property owners at this stage Note Spraygrass Landscapes Australia sprayed 9/09/14 - sprayed long term drains		
Pest Management					
145.	3.2.3	Complete feral animal inspections of biodiversity offset areas every three months to document sighting and abundance records. This will then inform ongoing control actions (as needed), including timing, frequency, target species and methods to be used	No records of feral pest inspections being conducted.	N	05
146.	3.2.3	Develop a vertebrate pest control register to document when and where each control method is implemented	No records of feral pest inspections being conducted.	N	05
147.	3.2.4	Sediment and Erosion Control Establishment of silt fence at the downslope side of disturbance areas between the approved extraction area and the adjoining buffer zones	Silt fencing had been established	C	
148.	3.2.5	Nest Box Establishment Nest boxes will be established in retained vegetation in proximity to areas impacted as a result of the Project to mitigate the loss of hollow-bearing trees. An assessment of the number of tree hollows lost during clearing will be undertaken as part of the felling activities by a suitably qualified and experienced ecologist. Suitably designed nest boxes will be established for the range of hollow-dependent species that are known to occur in the Project Area	No removal of hollow bearing logs at this stage	NT	
Rehabilitation Monitoring					

149.	3.2.6	Salvage of Habitat Features Where feasible, the salvage and relocation of hollow logs, fallen timber and boulders will be undertaken to augment habitat complexity within any areas to be rehabilitated or within the biodiversity offset area (if this area has low occurrences of such habitat resources). The procedure for salvaging and reinstating habitat features is as follows: <ul style="list-style-type: none"> • salvage hollow bearing trees identified as part of the pre-clearance surveys (i.e. trees with hollows of suitable size and structural integrity), where practical and safe to do so • hollow bearing trees can be stockpiled in unused areas, if necessary, until able to be reinstated • identify suitable areas to reinstate hollow bearing trees • carefully reinstate hollow bearing trees to identified area • hollow logs can be placed in small piles to increase habitat complexity, while others can be placed individually in post-quarrying rehabilitation areas. • 	Reported that trees have not been felled at this stage.	NT	
Monitoring Requirements					
150.	7.1.1	Visual inspections of all rehabilitated areas will be undertaken monthly as part of drainage line and water management system inspections. These will be complemented with more detailed six monthly (or other frequency as agreed with DP&E) inspections that will be undertaken over the life of the quarrying operations to assess: <ul style="list-style-type: none"> • soil conditions and erosion (i.e. stability) • drainage and sediment control structures • runoff water quality • germination rates • plant health • natural regeneration • weed infestation. • 	Limited rehabilitation has been conducted at the time of audit. Area of rehabilitation was readily visible.	C	

151.	7.1.2	Long-Term Rehabilitation Monitoring Permanent plots will be established within rehabilitation areas progressively as rehabilitation progresses, with the number of plots to be sampled determined in a manner consistent with BioBanking Methodology (OEH, 2014), and in accordance with Table 3 of the BioBanking Methodology (OEH, 2014) – Minimum Number of transects/plots required per zone area. Sampling will be undertaken in accordance with the methodology described in Section 7.2.1 below	Limited rehabilitation has been conducted at the time of audit.	NT	
9.0 LMP Review and Reporting					
152.		In accordance with the NSW approval (DA SSD_4978), the LMP is to be prepared in consultation with OEH, and be submitted to the Secretary for approval within 6 months of the date of this consent, unless the Secretary agrees otherwise	Landscape Management Plan prepared and submitted for approval 9/10/15. Reported that the plan had yet to be approved by DP&E, with ongoing consultation on its final composition and make-up continuing. Table 2.1 identifies how the Landscape Management Plan complies with the conditions of approval	C	
153.		The approval holder must maintain accurate records substantiating all activities and outcomes associated with or relevant to the conditions of the EPBC approval, including measures taken to implement the management plans required by this approval, and make them available upon request to the Department. Such records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act, or used to verify compliance with the conditions of approval	Records substantiating activities and outcomes were generally available. Where deficiencies have been identified, these have been raised as non-compliances or administrative non-compliances in this report	C	
154.		Within three months of every 12 month anniversary of the commencement of the project, the approval holder must publish a report on their website addressing compliance with each of the conditions of the EPBC approval, including implementation of any management plans as specified in the conditions. Documentary evidence providing proof of the date of publication and non-compliance with any of the conditions of this approval must be provided to the Department at the same time as the compliance report is published. The approval holder must also notify any non-compliance with this approval to the Department in writing within five business days of becoming aware of the non-compliance	EPBC approval provided on 4/10/2016.	NT	

155.	In accordance with the EPBC approval, at the written request of the Minister of Environment, Hy-Tec will revise or update the approved LMP where required, in accordance with Condition 9 of the approval.	The LMP has been revised and is still in draft form awaiting final approval from agencies.	NT	
156.	Publish all management plans within one month of approval	Management plans were available on the company website.	C	
157.	9.2 Annual Review In accordance with Condition 4 of Schedule 5 of the Tinda Quarry NSW Development Consent, by the end of March each year, Hy-Tec will review the environmental performance of the Project to the satisfaction of the NSW Secretary of the DP&E. The review must: <ul style="list-style-type: none"> • describe the development (including 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 • include a comprehensive review of the monitoring results and complaints recorded over the previous calendar year, which includes a comparison of these results against the relevant statutory requirements, limits or performance measures/criteria to the monitoring results of previous years • identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance • identify any trends in the monitoring data over the life of the development • identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies. 	Annual review required to be completed by March 2017.	NT	

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
NOISE MANAGEMENT PLAN					
161.	5.1	Tinda Creek Sand Quarries will operate in accordance with the operating hours defined in table 5.1	Project operates with the approved operating hours.	C	
5.2 General controls					
162.	5.2	Maintenance of existing equipment and associated sound attenuation features including mufflers and sound suppression lining of equipment	Records of equipment maintenance were sighted (e.g. Dredge 250hour service – 7/12/16)	C	
163.		Selection of new equipment with a sound power level equivalent to or less than the SWL in table 5.2.	No new equipment had been introduced to the site.	NT	
164.		Road traffic noise will be managed by limiting truck receive and dispatch to 34 trucks per day averaged over the calendar month, with the specified hours.	Records show that trucks dispatches have been less than 34/day.	C	
Noise monitoring					
165.	6.1	Has annual attended noise monitoring been conducted at the nearest proposed location near Receiver 1?	Report issued 1 August 2016 – Monitoring conducted by Benbow Environmental. Day time attended noise monitoring conducted. Night time unattended noise monitoring conducted	C	
166.	6.1	Is the information required by Section 6.1 recorded for each noise survey?	Information provided. Meteorological data shown in graphical data provided	C	
167.	6.1.1	Are assessable meteorological conditions records to determine the validity of noise data?	Meteorological data obtained from Richmond Air base to determine validity of data.	C	
168.	6.1.2	Has the noise been assessed against noise criteria in Schedule 3 of the development consent?	Criteria is included.	C	
169.		Has an independent review of noise impacts been requested by a landowner? Was the review conducted?		NT	

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
Reporting					
170.	7.1	Is a summary of noise monitoring data included in the Tinda Creek Sand Quarry Annual Review?		C	
171.	7.2	Have exceedances of noise criteria been treated as environmental incidents and managed in accordance with the Tinda Creek Sand Quarry environmental management strategy?	No exceedences reported.	NT	
172.	7.2	Have additional controls been implemented based on the outcomes of the investigations?		NT	
173.	7.2	Has Tinda Creek Sand Quarry notified affected landowners and provided regular monitoring results to each of the parties until the results show the operation is complying with the relevant criteria?		NT	
174.	7.3	Is a summary of complaints available to authorities on request?	Complaints register available – no noise complaints.	C	
175.	8.0	Has Tinda Creek Sand Quarry reviewed and revised the strategies, plans and programs within 3 months of the submission of an: <ul style="list-style-type: none"> • Incident report; • Annual review under condition 9; • Audit report under condition 10 • Any modifications to the consent? 		NT	
176.		Have revisions been submitted within 4 weeks of the review to the secretary for approval?		NT	
177.		Has the NMP been reviewed and revised at least yearly and resubmitted to DP&E?	Noise Management Plan prepared November 2016	C	
178.		Where changes to the NMP have occurred, has the updated NMP been submitted to the Secretary for approval?		NT	

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
TRANSPORT MANAGEMENT PLAN					
Training and Induction					
179.	3.0	Are persons provided training in the requirements of the transport management plan and drivers code of conduct? Records including name of personnel trained, contents of training, date and trainer's name?	Training records sighted for truck drivers (e.g. PBS Logistics 15/12/16).	C	
Implementation and Operation					
180.	4.1	Hy-Tec will ensure that each heavy vehicle driver will: <ul style="list-style-type: none"> • be appropriately trained and qualified • undertake the Hy-Tec induction process • comply with all road rules and regulations regarding speed, load limits and driving hours • make themselves familiar with the Personal Protection Equipment requirements for each work site and strictly adhere to them • comply with all rules and regulations such as speed restrictions when operating on private or company property • ensure that all loads are correctly secured or covered and sealed before entering a public road • limit the use of the engine brakes and other noisy driving practices in built-up areas • show courtesy to all customers and to all road users at all times • ensure that their actions bring credit upon themselves, the company they drive for, Hy-Tec and the transport industry in general • ensure that a site specific induction has been completed at all Hy-Tec sites annually and when requested • comply with the Hy-Tec Driver vehicle check when requested by Hy-Tec personnel. 	All drivers undertake site induction and training in the Code of Conduct and Chain of Responsibility. Verification is managed through the CAS system for the weighbridge. Drivers are unable to log in if they have not completed required training.	C	

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
181.	6.0	Hy-Tec will regularly monitor driver performance. This will include random inspections of vehicles entering and leaving the quarry and also include reviewing any complaints that may be received in regard to a driver's actions. In accordance with the Driver's Code of Conduct all trucks transporting quarry product will have contact details clearly displayed on the vehicle. Hy-Tec complaints line for Tinda Creek Sand Quarry is (02) 4565 0257	Inspection records available for trucks.	C	
182.	8.0	Hy-Tec will keep records of any complaints and any disciplinary action that may be taken. This information will be maintained for internal use.	Complaints recorded.	C	
183.		Have any driver complaints been received? Have they been investigated and acted on in accordance with the Driver's code?	One complaint re slow moving truck on Putty Road. No investigation required.	C	
184.	5.1	Are truck departure times recorded directly from the weighbridge?	Maintained electronically through the CAS system for the weighbridge.	C	
185.		Is a summary of truck movements and times associated with quarry product been published on the Tinda Creek Sand Quarries website?	Records maintained on the company website http://www.hy-tec.com.au/technical/p108.aspx	C	

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
ENVIRONMENTAL MANAGEMENT STRATEGY					
186.		3.1.3 Complaints . Tinda Creek Sand Quarry will inform the public of the complaints line by the phone number advertised as a complaints line at the site's entrance. The Complaints Line number is (02) 4565 0257. The procedure for handling and addressing any complaints will include: • responding to the complainant acknowledging that the complaint has been received within one working day of receiving the complaint • making a record of the complaint • investigating the reason for the complaint • implementing appropriate measures to address the complaint. A copy of any complaints received and actions taken will be presented to the CCC.	Complaints line established	C	
187.		All employees and contractors will be required to complete a structured site induction.	Site induction provide annually to all workers and subcontractors. Managed through the CAS system	C	

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
188.		<p>Training will be ongoing to improve the environmental and social understanding, capabilities and performance of personnel and contractors. In addition, specific training will be provided to personnel involved in:</p> <ul style="list-style-type: none"> • proximity of the extraction areas to threatened species • where disturbance is allowed, where buffer zones are and what activities are allowed in buffer zones • importance of maintaining the integrity of the closed water management system • maintaining and operating pollution control equipment • storing and handling hydrocarbons • Tinda Creek Sand Quarry site transport rules • responding to environmental incidents and emergencies • Aboriginal cultural awareness. 	Reported that training has been provided as part of induction and toolbox meetings.	C	
189.		<p>The Quarry Manager will be responsible for ensuring that fire management strategies are implemented and that there are always persons on-site trained in fire-fighting. Bushfire management strategies that will be implemented include:</p> <ul style="list-style-type: none"> • regular slashing of surface vegetation around critical areas and infrastructure such as the staging area adjacent Putty Road, the processing plant and other site facilities • maintaining road ways and tracks that are either exiting the site or constructed as a requirement of the project in order to provide an effective fire break. <p>The site will be equipped with operational fire-fighting equipment which will be serviced as required by the manufacturer's specifications.</p>	<p>Fire fighting equipment available (fire extinguishers). Noted that the area around critical infrastructure was well maintained (slashed). Roads and tracks sighted were generally maintained in good condition.</p>	C	

HERITAGE MANAGEMENT PLAN

6.1 Management of Known Aboriginal Archaeological Sites

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
190.		<p>As outlined in Tables 1.2 and 3.2 site #45-2-2545 Tinda Creek Artefact Scatter 1 is to be surface collected if Domain 3 is to be impacted. The methodology to be followed for the collection is as follows:</p> <ul style="list-style-type: none"> • the site will be inspected and all surface artefacts flagged - once flagged, the artefact distribution will be photographed • the GPS coordinate of each artefact/cluster of artefacts will be recorded with a hand-held GPS • each artefact/cluster of artefacts will be placed in an appropriately labelled bag • all salvaged artefacts will be relocated to a location agreed on with registered Aboriginal parties on site and Hy-Tec • Aboriginal Site Impact Recording (ASIR) form will be completed for the site in accordance with current requirements. New OEH site recording forms will be completed for relocated artefacts 	No known sites- Domain 3 yet to be impacted.	NT	
6.2 Management of New Aboriginal Archaeological Sites					
191.		<p>6.2.1 Artefact scatters and isolated artefacts Artefact scatters and isolated artefacts are the most common site type associated with the project area. Should a previously unknown artefact scatter or isolated artefact be identified, all works in the vicinity of the site should cease and the Hy-Tec Environmental Site Representative will be informed of the presence of the site. The opportunity will then be provided to an archaeologist and registered Aboriginal party representatives to inspect the newly identified artefact scatter/isolated find</p>	No previously unknown artefact scatter or isolated artefact have been identified.	NT	
192.		Where a risk is identified that approved activities may have the potential to interact with the artefact scatters/isolated artefacts; the site will be clearly demarcated prior to the commencement of works being undertaken in the vicinity	No risks to interact with the artefact scatters/isolated artefacts have been identified.	NT	

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
193.		6.2.2 Potential Human Skeletal Remains In the unlikely event that a potential burial site or potential human skeletal material is exposed within the project area, the following procedure should be followed in accordance with the Policy Directive – Exhumation of Human Remains (NSW Department of Health 2008), Skeletal Remains – Guidelines for the Management of Human Skeletal Remains under the <i>Heritage Act 1977</i> (NSW Heritage Office 1998) and the Aboriginal Cultural Heritage Standards and Guidelines Kit	No potential burial site or potential human skeletal material had been exposed	NT	
194.		6.2.3 Other site types Should a previously unknown site of any other type (such as scarred trees or grinding grooves) be identified, all works in the vicinity of the site should cease and the Hy-Tec Environmental Site Representative should be informed of the presence of the site. The opportunity will then be provided to an archaeologist and the registered Aboriginal parties to inspect the newly identified site.	No previously unknown sites have been identified.	NT	
195.		Management of New Historical Heritage Sites If during the course of works any previously unknown historical archaeological material or heritage sites/items are uncovered or identified, all work in the area of the item(s) shall cease immediately and a qualified heritage consultant/archaeologist consulted. If the archaeologist considers the material uncovered constitutes an archaeological 'relic' or a heritage item, the Heritage Division, OEH will be consulted, in accordance with Section 146 of the <i>Heritage Act 1977</i> (NSW), to determine an appropriate course of action prior to the recommencement of work in the area of the item	No new sites have been identified.	NT	
196.		6.4 Aboriginal Cultural Heritage Training Package Hy-Tec, in consultation with the registered Aboriginal parties, will be responsible for organising the preparation of a Cultural Heritage Training Package that will be included in future inductions for all new employees and visitors to the site.	A Cultural Heritage Training Package was available and included in inductions	C	

AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
197.		<p>8.2 Review</p> <p>This CHMP will be reviewed within 12 months following approval of the CHMP.</p> <p>The ACHMP will be subject to review at a minimum period of every three years. Additionally, more frequent review may be required if significant changes to operations occur.</p>	Heritage Management Plan finalised November 2016.	C	

Statement Of Commitments					
AQUAS Audit Ref No	Cond. No.	Condition	Finding and Recommendations	Compliance rating	Assessment Issue #
Compliance with the EIS					
198.	5.1.1	To carry out the development for the Project generally in accordance with the Development Application and this EIS.	Results of this audit show that the development had generally been carried out in accordance with the DA and EIS. Where deviations have occurred, these have been raised as non-compliances or administrative non-compliances in this report.	C	
Life of Operation, Production and Hours of Operations					
199.	5.2.1	The Project approval life will be for an additional 30 years from the date of commencement of operations under the Project Approval. Closure and rehabilitation activities will be undertaken in accordance with a detailed Quarry Closure Plan at the time of closure. These works may extend beyond the 30 year operational approval period.	Approved life up to 2045.	NT	
200.	5.2.2	A maximum of 300,000 tonnes per year of sand products will be transported from the quarry	Current extraction 151916 T for Calendar year 2016.	C	
201.	5.2.3	Quarry operations will be undertaken between the hours of 5.00 am and 10.00 pm Monday to Friday and 5.00 am and 3.00 pm on Saturdays	Hours are included in induction Truck drivers cannot load prior to 7am. TBT at 6.30am to 4pm Work commence at 7am. Finish production at 3.30pm. Weighbridge system locked out before 5am and after 10pm. Records reviewed for November 2016 – Showed first load ~5.10 am with loading completed before 15.30.	C	

202.	5.2.4	<p>The following activities may occur on Sundays and public holidays:</p> <ul style="list-style-type: none"> • maintenance of fixed plant and mobile plant; • product stockpile management; • water cart operations for stockpile area and plant area; and • pumping for dewatering activities. 	Quarry operations were not conducted on Sundays and public holidays	C	
Environmental Management, Monitoring and Reporting					
203.	5.3.1	Within six months of development consent, Hy-Tec will revise its existing Environmental Management Plan (EMP) as part of the implementation of the Project. The EMP will include details of all of the management and monitoring commitments outlined in the EIS (specifically those outlined in this Statement of Commitments).	Environmental Management Strategy prepared	C	
204.	5.3.2	Hy-Tec will prepare an Annual Review of the environmental performance of the Project and will make this available to the public, Hawkesbury City Council and relevant government agencies as required.	Annual Review completed for Jan-Dec 2015.	C	
Ecology					
205.	5.4.1	Implement a robust weed management program to be documented in the revised EMP.	Weed management program included in the Landscape Management Plan	C	
206.	5.4.2	Conduct rehabilitation progressively over the life of the quarry. All rehabilitation works will be scheduled to commence as soon as practicable after disturbance and reformation of the landscape		C	
207.	5.4.3	A robust tree felling procedure will be implemented at Tinda Creek Quarry to minimise the potential for impacts on native fauna species (including threatened species) as a result of the clearing of hollow-bearing trees.		C	
208.	5.4.4	Nest boxes will be established in retained vegetation in proximity to area impacted as a result of the Project to mitigate the loss of hollow-bearing trees. An assessment of the number of tree hollows lost during clearing will be made as part of the tree felling activities and nest boxes will be established to compensate for this loss, where appropriate. Suitably designed nest boxes will be established for the range of hollow-dependent species that are known to occur in the Project area	No hollow bearing trees have been removed	NT	

209.	5.4.5	A pre-clearance survey of the proposed disturbance areas will be undertaken prior to ground disturbance (within seven days of the planned disturbance) to ensure that no Rosenberg's Goanna burrows are present. The assessment should be undertaken by a suitably qualified and licensed ecologist. If burrows are present, the ecologist will provide advice on how to ensure that no goannas remain within the burrows during the clearing process	Quarry operations have been conducted in previously cleared areas.	NT	
210.	5.4.6	A pre-clearance survey of all areas to be cleared will be undertaken (within seven days of the planned clearing time) to ensure that no termite mounds used by Rosenberg's Goannas are present. The assessment should be undertaken by a suitably qualified and licensed ecologist. If termite mounds are present, the ecologist will provide advice on how to ensure that no goanna eggs or juveniles remain within the mounds during the clearing process	Quarry operations have been conducted in previously cleared areas.	NT	
211.	5.4.7	A comprehensive biodiversity offset strategy is to be implemented for the Project as described in Appendix 7 to ensure the development maintains or improves the terrestrial and aquatic biodiversity values of the region in the medium to long-term	In discussions with OEH regarding the offset strategy. Area identified for offset.	C	

Aboriginal Heritage

212.	5.5.1	In consultation with the registered Aboriginal parties, prepare an Aboriginal Cultural Heritage Management Plan (ACHMP) for the proposed Project. The ACHMP will allow for management (collection) of the artefacts located in the Tinda Creek Artefact Scatter 1 site in Domain 3 (if Domain 3 is to be quarried) and to provide for future management of Aboriginal cultural heritage issues should they arise across the broader Project area. The ACHMP will form part of the revised EMP for the project.	Aboriginal Heritage Plan prepared.	C	
213.	5.5.2	If Domain 3 is to be quarried, the artefacts located within the Tinda Creek Artefact Scatter 1 site are collected using the methodology set out in the protocols and procedures of the approved ACHMP.		NT	

214.	5.5.3	<p>The EMP is to be updated to contain provisions to address management of the following issues, as detailed in the Aboriginal Cultural Heritage and Archaeological Assessment (Appendix 9):</p> <ul style="list-style-type: none"> • exposure of previously unrecorded artefactual material during ground • disturbance works within the Project area; • exposure of human/possible human skeletal material during ground disturbance works within the Project area; • exposure of sandstone with evidence of Aboriginal engravings or grinding grooves; and • development of an Aboriginal Cultural Heritage Training Package for all Hy-Tec • employees/contractors working on the Project to be provided as part of the quarry induction process 	Provisions to address management of the issues identified were included in the Aboriginal Heritage Plan.	C	
Historic Heritage					
215.	5.6.1	In the unlikely event that unexpected archaeological remains or potential heritage items not identified as part of this assessment are discovered during the Project and are likely to be disturbed by the Project, all work in the immediate area should cease, the remains and potential impacts should be assessed by a qualified archaeologist or heritage consultant and, if necessary, the Heritage Branch, Department of Planning notified.	No unexpected finds have occurred.	NT	
Traffic and Access					
216.	5.7.1	The site access will be upgraded to comply with the minor road standard access as detailed in AS2890.2	Records sighted to demonstrate site access was designed with consideration of AS2890.2.	C	
Noise					
217.	5.8.1	Hy-Tec will undertake an attended noise monitoring program (as detailed in Section 4.7.6.1) in order to assess ongoing compliance with relevant noise impact assessment criteria over the life of the Project. Details of the Noise Management Plan will be provided in the revised EMP	Noise monitoring conducted by Benbow Environmental - Report issued 1 August 2016. Day time attended noise monitoring conducted. Night time unattended noise monitoring conducted	C	

218.	5.8.2	The monitoring results will be reviewed by the Hy-Tec environmental representative to assess compliance with the Noise Impact Assessment (NIA) predictions and with the relevant NIA criteria. The results will be reported in accordance with the requirements of the Project approval and EPL	Noise monitoring report showed that noise levels from the quarry were in compliance with noise criteria for the operations.	C	
Air Quality					
219.	5.9.1	The existing dust control measures will continue to be implemented on site, including: <ul style="list-style-type: none"> • minimisation of the total disturbed working areas at any one time; and • watering of unsealed roads, working areas and stockpiles as required . 	Dust control measures had been implemented. Dust monitoring results were below site licence limits.	C	
Surface Water and Groundwater					
220.	5.10.1	Hy-Tec will continue to undertake monitoring of groundwater bores in accordance with existing licence conditions.	Ground water monitoring has continued at 11 bores on site. Additional bores are to be installed when ground conditions permit drill rig access.	C	
221.	5.10.2	All diversion drains will continue to be maintained in good condition	During the site inspection, it was noted that diversion drains were maintained in good condition.	C	
222.	5.10.3	The water management system will remain as a closed system	Diversion drains had been installed to divert stormwater around the site. All water on site was collected and reused for dust suppression.	C	
Greenhouse Gas and Energy					
223.	5.11.1	Hy-Tec will continue to participate in the Energy Efficiency Opportunities (EEO) Program and undertake the following activities to improve energy use efficiency: <ul style="list-style-type: none"> • develop an EEO project and communication plan; • evaluate energy use for the Project; • identify and investigate potential EEO; and • implement, track, communicate and report on EEO. 	It was advised that the site has recently changed out the existing main fresh water pump due to age and better overall performance (Environmentally and operationally) with the new unit. The site has also evaluated general performance of the 30+ year old dredge and has purchased a newer unit that it is understood to achieve better performance in both fuel usage and production volume	C	

224.	5.11.2	Hy-Tec will continue to improve on-site diesel use efficiency based on the range of measures outlined in Section 4.11	<p>It was advised that the site has recently changed out the existing main fresh water pump due to age and better overall performance (Environmentally and operationally) with the new unit.</p> <p>The site has also evaluated general performance of the 30+ year old dredge and has purchased a newer unit that it is understood to achieve better performance in both fuel usage and production volume</p>	C	
225.	5.11.3	Hy-Tec will explore the use of lower GHG emission energy sources as soon as practical based on the range of measures outlined in Section 4.11	As above	C	

Hazards

226.	5.12.1	Hy-Tec will store all dangerous goods in accordance with dangerous goods storage requirements and relevant Australian Standards	Dangerous goods were stored in appropriately bunded containers.	C	
227.	5.12.2	Hy-Tec will continue to implement the appropriate measures to reduce the risk of fire ignition and the spread of bushfire across the site in consultation with the Rural Fire Services (RFS).	The site had been maintained to minimise the risk of spread of bushfire across the site.	C	

Rehabilitation and Closure

228.	5.13.1	The revised EMP will detail the approach to rehabilitation of the Project, including the species to be used in revegetation works.	The Landscape Management Plan Section 4.0 provides the approach to rehabilitation of the site.	C	
229.	5.13.2	Wherever possible, rehabilitation will be completed progressively as part of the ongoing development of the quarry	Minor rehabilitation had commenced.	C	
230.	5.13.3	A detailed Quarry Closure Plan will be developed approximately three years prior to cessation of quarrying activities.		NT	