



RESPONSE TO AUDIT RECOMMENDATIONS – Independent Environmental Audit (EMM, July 2017)

Condition Number	Condition	Compliance Status and Recommendations	KEQ Comment
Project Approval PA 09_0175			
Schedule 3 - Environmental Performance Conditions			
19	The Proponent shall comply with the discharge limits in any EPL, or with Section 120 of the POEO Act	<p>Non-compliant</p> <p>It is recommended that monitoring at SW5 is included in the routine monitoring program.</p> <p>It is recommend that oil and grease concentrations downstream and upstream of the quarry (and potentially in adjacent catchments) are investigated to determine the source of elevated oil and grease concentrations, and whether the quarry is contributing to downstream concentrations.</p> <p>It is recommended that any exceedances of water quality criteria during dam water discharges are reported, in accordance with the project approval conditions and the quarry's EPL.</p>	<p>KEQ is currently revising the Water MP to improve practices and implement better mitigation of potential non-compliant discharges.</p> <p>The following actions will be taken:</p> <ol style="list-style-type: none"> 1. SW5 monitoring site will be included in the Water MP to be monitored during any discharge events from Dam 3 (LDP3). 2. Oil & grease will be monitored closely. Any exceedances in the total oil & grease content will be further analysed at a NATA laboratory to determine the source of the high oil & grease. Monthly testing as per the Water MP will continue. 3. Any future exceedance of the TSS and oil & grease criteria will be reported. KEQ has since reported discharge that did not meet water quality criteria to the DPE and EPA.

Condition Number	Condition	Compliance Status and Recommendations	KEQ Comment
21	<p>The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Secretary. This plan must:</p> <p>(c) include:</p> <p>..</p> <p>(iii) a Groundwater Monitoring Program that includes:</p> <ul style="list-style-type: none"> • baseline data of groundwater levels surrounding the site; • groundwater impact assessment criteria, to be developed following analysis of baseline data, including trigger levels for investigating any potentially adverse groundwater impacts; and • a program to monitor and/or validate the impacts of the project on groundwater resources. <p>..</p>	<p>Administrative non-compliance</p> <p>It is recommended that groundwater levels are monitored quarterly or that the monitoring frequency is modified in the WMP.</p>	<p>KEQ is currently revising the Water MP. The groundwater levels will be monitored quarterly from October 2017.</p>
27	<p>The Proponent shall develop and implement a translocation program for <i>Tetratheca juncea</i> to the satisfaction of the Secretary. This program must:</p> <p>..</p> <p>(e) include short and long-term goals and performance criteria to measure the effectiveness of the program; and</p> <p>..</p>	<p>Administrative non-compliance</p> <p>It is recommended that the plan is updated to include performance criteria to ensure the effectiveness of the program can be reviewed and to identify ways to improve the success of future translocation programs.</p>	<p>Noted. As required under Schedule 5, Condition 5 of the Project Approval, the TjTMP will be updated.</p> <p>Please note that this condition is covered in the latest TjTMP (Firebird, 2015) under Section's 8 and 9. However, KEQ acknowledges that the translocation did not commence until May 2016, which was outside of the timeframe shown in Table 9-1 of the TjTMP. Section's 8 and 9 will be revised accordingly.</p>

Condition Number	Condition	Compliance Status and Recommendations	KEQ Comment
29	The Proponent shall, within 12 months of the finalisation of the Biodiversity Offset Strategy, make suitable arrangements to provide appropriate long-term security for the offset area, in consultation with OEH and Council, and to the satisfaction of the Secretary. ..	Administrative non-compliance It is recommended that the conservation agreement is finalised in consultation with OEH and DPE.	A conservation agreement under Part 4 Division 12 of the National Parks & Wildlife Act 1974 was drafted in November 2016. In July 2017, KEQ lodged a Section 75(W) modification with the DPE. Depending on the outcome of this modification, this agreement will be amended to give allowance for any additional offset areas that maybe required.
32	The Proponent shall prepare and implement a Landscape and Rehabilitation Management Plan for the project to the satisfaction of the Secretary. This Plan would relate to the area of the quarry and all perimeter lands. This plan must: .. d. describe the short, medium and long-term measures that would be implemented to: • manage remnant vegetation and habitat on the site; and • ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations of this approval. ..	Non-compliant It is recommended that soil is not stockpiled within the quarrying area or that it is stored within discrete stockpiles as opposed to forming parts of benches. This would allow the soil thickness to be verified to be less than 3 m and to ensure that it is easily recovered for use in rehabilitation.	Topsoil stockpiles of less than 3m in height have been created along the project boundary in southern end of the project area. This topsoil is easily accessible and is intended to be utilised for future rehabilitation.

Condition Number	Condition	Compliance Status and Recommendations	KEQ Comment
34	The Proponent shall lodge a Conservation and Rehabilitation Bond with P&I within 6 months of the approval of the Landscape and Rehabilitation Management Plan, to ensure that the Biodiversity Offset Strategy and the rehabilitation of the site is implemented in accordance with the performance and completion criteria set out in the Landscape and Rehabilitation Management Plan. ..	Administrative non-compliance The Conservation and Rehabilitation Bond was lodged outside of 6 months of the approval of the Landscape and Rehabilitation Management Plan (14 December 2015).	The Conservation and Rehabilitation Bond was lodged with the DPE in July 2016. No further action is required to comply with this condition.
Schedule 5 - Environmental Management, Reporting and Auditing			
3	The Proponent shall ensure that the Management Plans required under this approval are prepared in accordance with any relevant guidelines, and include: ... (f) a program to investigate and implement ways to improve the environmental performance of the project over time; (g) a protocol for managing and reporting any: <ul style="list-style-type: none"> incidents; complaints; non-compliances with statutory requirements; and exceedances of the impact assessment criteria and/or 	Compliant As noted within the EMS, the quarry's management team will discuss and review the status of all management plans on an annual basis, but unless required, all site environmental management plans (including the Environmental Management Strategy) will be reviewed and updated every three years. The EMS does not include a adequately detail the program to improve the environmental performance of the project, the reporting protocol or review protocol. It is recommended that a copy of the quarry's Environmental Incident Reporting Form be appended to each of the quarry's management	KEQ will be reviewing and updating all MP's by 31 October 2017. Consideration will be given to include a copy of the Environmental Incident Form in the Appendices of each MP's.

Condition Number	Condition	Compliance Status and Recommendations	KEQ Comment
	<ul style="list-style-type: none"> performance criteria; and a protocol for periodic review of the plan. 	plans and the protocol for managing and reporting all environmental incidents be referenced in the text.	
7	The Proponent 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 project, the Proponent shall notify the Secretary and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Secretary any relevant agencies with a detailed report on the incident, and such further reports as may be requested.	<p>Non-compliant</p> <p>It is recommended that any exceedances of water quality criteria during dam water discharges are reported, in accordance with the project approval conditions and the quarry's EPL.</p>	<p>The non-compliance was given to this condition due to a discharge event that occurred in March 2017. At the time of this discharge, KEQ did not believe this condition applied. It was deemed that this discharge event was not at risk of causing "material harm" as defined under Section 147, POEO Act 1997. As such, KEQ did not treat this as an environmental incident. Surface water was monitored during this discharge event and dam water was treated with a flocculant as per the Water MP. Also, KEQ transferred approximately 0.5ML of dirty water from Dam 3 to Dam 1 to prevent further discharge.</p> <p>For future discharge events where EPL criterion for discharge is exceeded, KEQ will report this to the EPA and DPE. KEQ will also report any environmental incidents as required under the Project Approval, EPL 20611 and the Pollution Incident Response Management Plan (PIRMP).</p>

Condition Number	Condition	Compliance Status and Recommendations	KEQ Comment
EPL 20611			
2 Discharge to Air and Water and Applications to Land			
P1.3	The following points referred to in the table (refer to Appendix C) are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.	<p>Compliant</p> <p>As noted within the Annual Review and the environmental monitoring reports, there were no discharge events at Karuah East Quarry during the reporting period for these documents. The discharge points listed in the Water Management Plan are consistent with the licensed discharge points listed as part of this condition (refer to Figure 4 of the Water Management Plan).</p> <p>As noted regarding Schedule 2, Condition 2 of PA 09_0175, Dam 1 has been constructed about 100 m further south than shown on the plan.</p> <p>It is recommended that the proposed surface water management layout in the Water Management Plan (Figure 4) is updated accordingly and the plan is submitted to the EPA with a request to vary the EPL.</p>	<p>Water MP will be revised. Figure 4 of the Water MP will be updated to reflect location changes of the Dams.</p> <p>It is anticipated that the Water MP will be updated by 31 October 2017.</p>
3 Limit Conditions			
L1.1	Except as may be expressly provided in any other condition of this licence, the licensee must comply with Section 120 of the Protection of the Environment Operations Act 1997.	<p>Non-compliant</p> <p>It is recommended that any exceedances of water quality criteria during dam water discharges are reported, in accordance with the project approval conditions and the quarry's EPL.</p>	<p>Future exceedance in the TSS and oil & grease criterion of discharged water or if it is suspected that the water quality will not meet the EPL criterion, KEQ will report these discharge events.</p> <p>If the TSS and oil & grease do not exceed the EPL criterion but fails to meet the criterion for pH, KEQ will assess whether to report this on a case by case basis. Results from previous monitoring</p>

Condition Number	Condition	Compliance Status and Recommendations	KEQ Comment
			<p>has shown that the pH is naturally lower than the EPL limits in the receiving waters of discharge.</p> <p>All controlled and uncontrolled discharge events will be reported in the annual returns as required under EPL 20611.</p>
L2.1	For each monitoring/discharge point or utilisation area specified in the table/s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.	<p>Non-compliant</p> <p>It is recommended that any exceedances of water quality criteria during dam water discharges are reported, in accordance with the project approval conditions and the quarry's EPL.</p>	<p>Future exceedance in the TSS and oil & grease criterion of discharged water or if it is suspected that the water quality will not meet the EPL criterion, KEQ will report these discharge events.</p> <p>If the TSS and oil & grease do not exceed the EPL criterion but fails to meet the criterion for pH, KEQ will assess whether to report this on a case by case basis. Results from previous monitoring has shown that the pH is naturally lower in the receiving waters of the discharge than the EPL limits.</p> <p>All discharge events will be reported in the annual returns as required under EPL 20611.</p>

Condition Number	Condition	Compliance Status and Recommendations	KEQ Comment
L2.2	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.	<p>Non-compliant</p> <p>It is noted that the baseline pH of the area was 5.58–6.20 (refer to Table 4 in the Water Management Plan), while the EPL specifies a discharge range of pH 6.5–8.5. So any discharge is expected to be out of compliance unless it is treated to increase the pH above the natural range. The environmental benefit of such treatment is questionable given that it may result in a perturbation from the natural conditions of the receiving waters.</p>	Though this has been non-compliant, previous monitoring results shows that the pH levels across the KEQ site is naturally lower than the EPL limits. At this time, KEQ believes there will be no environmental benefits in treating the discharge water to raise the pH. Monitoring results of discharge events will be reported in the EPL annual returns. Monthly and discharge monitoring will also be reported in the Annual Reviews.
L4.4	<p>To determine compliance:</p> <p>a) with the Leq(15 minute) noise limits in the Noise Limits table, the noise measurement equipment must be located:</p> <p>i) approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or</p> <p>ii) within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable;</p> <p>iii) within approximately 50 metres of the boundary of a National Park or a Nature Reserve.</p> <p>b) with the LA1(1 minute) noise limits in the Noise Limits table, the noise measurement equipment</p>	<p>Compliant</p> <p>The Noise Management Plan specifies that all noise measurement procedures employed throughout the monitoring programme will be guided by the requirements of AS 1055 1997 Acoustics - Description and Measurement of Environmental Noise (refer to Section 8). In addition, all acoustic instrumentation employed throughout the monitoring programme will be designed to comply with the requirements of AS IEC 61672.1 2004 Electroacoustics Sound level meters - Specifications. As noted within the Noise Management Plan and the Annual Review, the noise monitoring locations are consistent with the locations listed as part of this EPL. The monitoring requirements specified as part of this</p>	<p>KEQ will review the Noise MP in consultation with an acoustic specialist. Amendments will be made to the Noise MP if required.</p> <p>It is anticipated that the Noise MP will be updated by 31 October 2017.</p>

Condition Number	Condition	Compliance Status and Recommendations	KEQ Comment
	<p>must be located within 1 metre of a dwelling façade.</p> <p>c) with the noise limits in the Noise Limits table, the noise measurement equipment must be located:</p> <p>i) at the most affected point at a location where there is no dwelling at the location; or</p> <p>ii) at the most affected point within an area at a location prescribed by part (a) or part (b) of this condition.</p> <p>Note: A non-compliance of the Noise Limits table will still occur where noise generated from the premises in excess of the appropriate limit is measured:</p> <p>i) at a location other than an area prescribed in part (a) and part (b); and/or</p> <p>ii) at a point other than the most affected point at a location.</p>	<p>condition are not explicitly addressed within the Noise Management Plan.</p> <p>It is recommended that the Noise Management Plan be revised to include reference to the specific measures listed in this condition.</p>	
5 Monitoring and Recording Conditions			
M3.1	<p>...</p> <p>Note: The Protection of the Environment Operations (Clean Air) Regulation 2010 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "<i>Approved Methods for the Sampling and Analysis of Air Pollutants in NSW</i>".</p>	<p>Compliant</p> <p>The general requirements of the air quality monitoring program are established in Section 8.1.1 of the Air Quality and Greenhouse Gas Management Plan. As noted within Section 8.1.1, all monitoring must be conducted in accordance with the Approved Methods for the Sampling and Analysis of Air Pollutants in NSW.</p> <p>It is recommended that a statement be included within the quarry's monthly environmental monitoring reports and future annual reviews</p>	<p>From August 2017, all future environmental monitoring reports for KEQ will include a brief reference or statement to indicate that the air quality monitoring has been performed to meet the <i>Approved Methods of Sampling and Analysis of Air Pollutants in NSW</i>.</p>

Condition Number	Condition	Compliance Status and Recommendations	KEQ Comment
		that monitoring has been conducted in accordance with the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in NSW</i> .	
M6.1	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.	<p>Administrative non-compliance</p> <p>It is recommended that the Hunter Quarries website is updated to specify a number to call with complaints - this may be the same number as the general number provided.</p>	The Hunter Quarries website was updated on 14 July 2017. An environmental complaints contact phone number is now listed.
M6.2	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.	<p>Administrative non-compliance</p> <p>It is recommended that the Hunter Quarries website is updated to specify a number to call with complaints - this may be the same number as the general number provided.</p>	The Hunter Quarries website was updated on 14 July 2017. An environmental complaints contact phone number was added.

Condition Number	Condition	Compliance Status and Recommendations	KEQ Comment
Statement of Commitments – Appendix 6, Project Approval 09_0175			
Schedule 3 - Environmental Performance Conditions			
2.0 SUMMARY OF MANAGEMET PLANS	<p>...</p> <p>The following management plans will be prepared prior to commencement of construction works:</p> <p>...</p> <p>- Waste Management Plan.</p> <p>...</p>	<p>Administrative non-compliant</p> <p>The quarry's EMS and management plans have been approved by DPE. However, a waste management plan has not been prepared to meet this commitment.</p> <p>It is recommended that a waste management plan is prepared, in accordance with the summary of environmental monitoring provided in Table 6 of the EMS.</p>	<p>Waste management is partially covered in the EMS.</p> <p>It is anticipated that a separate Waste MP will be developed by 31 October 2017.</p>
3.0 SOIL AND WATER / 3.2 Groundwater Management	<p>Refuelling will be undertaken in a designated non-permeable (compacted clay or concrete) area.</p>	<p>Administrative non-compliant</p> <p>The site is under construction and re-fuelling areas have not been constructed. Refuelling in the quarry and infrastructure area is currently performed by a mobile tanker. These are temporary arrangements during the project's construction period and will be addressed prior to the commencement of quarrying operations. Obviously, some earthworks need to be completed before a non-permeable refuelling area can be established. It would have been better to recognise this when writing this commitment.</p> <p>It is recommended that a non-permeable refuelling area (or areas) is constructed as soon as practicable.</p>	<p>A temporary refuelling area has been provided near the crushing plant. Area has been filled with compacted clay as subbase and a layer of gravel has been used for capping.</p> <p>It is anticipated that the area used for temporary refuelling will be upgraded to a permanent refuelling area by late 2017. A concrete bunded fuel area with an oil spillage catchment will be constructed. Also, a self bunded "bladder" diesel tank will be installed. A permanent fuel area will be installed before the Quarry becomes operational.</p>

Condition Number	Condition	Compliance Status and Recommendations	KEQ Comment
3.0 SOIL AND WATER / 3.2 Groundwater Management	Groundwater samples will be collected for laboratory analysis on a 6-monthly basis. The groundwater quality results will be laboratory analysed for the parameters below and compared to background water quality results. The groundwater sampling will be carried out by an experienced groundwater professional or environmental scientist in accordance with Australian sampling standards. The basic analyte and parameter suite applies to all samples. The additional extended analytic suite should apply annually together with the basic suite.	<p>Administrative non-compliant</p> <p>There is no evidence that the groundwater sampling was carried out by an experienced professional or environmental scientist in accordance with the Australian sampling standards.</p> <p>It is recommended that the qualifications and experience of the professional undertaking groundwater sampling are provided in monitoring reports.</p> <p>The laboratory results for March 2016 and April 2017 confirmed that the suite of analytes listed as part of this commitment were assessed (with the exception of total iron, which was not assessed as part of the April 2017 monitoring event).</p> <p>It is recommended that total iron concentrations be assessed as part of the 12 monthly suite of analytes or that the Water Management Plan is amended to remove this requirement.</p>	<p>KEQ has reviewed these comments and recommendations. A request will be provided to the groundwater specialists/environmental scientist to ensure that the testing methods and qualifications of the professionals are addressed in their documentation.</p> <p>KEQ will ensure that the chain of custody forms and laboratory reports have included all the analytes as specified in this SoC.</p> <p>The next bi-annual groundwater monitoring will occur in October 2017. These corrective actions will be put in place during this time.</p>
3.0 SOIL AND WATER / 3.2 Groundwater Management	Additional Analysis – 12 monthly (every second sample only): Nutrient suite: total nitrogen, nitrate, total Kjeldahl nitrogen, total phosphorus, phosphate; Metals (arsenic, cadmium, chromium, copper, lead, zinc, nickel, manganese, mercury, total iron, filterable iron); Polycyclic Aromatic Hydrocarbon (PAH); and Organophosphorus pesticides, phenoxy acid herbicides.	<p>Administrative non-compliant</p> <p>The laboratory results for March 2016 and April 2017 confirmed that the suite of analytes listed as part of this commitment were assessed (with the exception of total iron, which was not assessed as part of the April 2017 monitoring event).</p> <p>It is recommended that total iron concentrations be assessed as part of the 12 monthly suite of analytes or that the Water Management Plan is amended to remove this requirement.</p>	<p>It appears that the requested analytes provided to the laboratory for testing was in accordance with this SoC but total iron results were not provided in the final laboratory report.</p> <p>KEQ will ensure that the chain of custody forms and laboratory reports have included all the analytes as specified in this SoC.</p>

Condition Number	Condition	Compliance Status and Recommendations	KEQ Comment
			The next bi-annual groundwater monitoring will occur in October 2017. These corrective actions will be put in place during this time.
3.0 SOIL AND WATER / 3.3 Surface Water – Proposed Water Management Systemt	In the event that water is required to be discharged offsite, the water will be tested prior to discharge to ensure appropriate discharge criteria are met, such as Total Suspended Solids (TSS) below a concentration of 50 mg/L. Where this is not the case, water will be treated, for example through the use of chemical flocculation, to achieve a suitable water quality.	<p>Non-compliant</p> <p>As described above (refer to Schedule 3, Condition 19 of PA 09_0175), the results of the TSS monitoring during the discharge events from Dam 3 in March and April 2017 exceeded the concentration limits (40 mg/L) defined by Condition L2.4 of the quarry's EPL and 50 mg/L.</p> <p>It is recommended that water be treated during all future dam water discharges to achieve a suitable water quality.</p>	<p>Water in Dam's 1 and 3 were flocculated in April 2017 and again in June 2017 to decrease TSS values. Calcium chloride at a dosage recommended by an experienced and qualified engineer was used as the flocculent. Calcium chloride was specifically chosen for its relatively fast reaction time and its low toxicity. Testing results showed a significant improvement in water quality after flocculation.</p> <p>KEQ will continue to monitor and treat the dam water in the future when required.</p>
3.0 SOIL AND WATER / 3.3 Surface Water – Proposed Water Management Systemt	In the event that an exceedance in surface water quality criteria is identified, the exceedance will need to be reported to the relevant agencies in accordance with the requirements of the EPL.	<p>Non-compliant</p> <p>As described above (refer to Schedule 3, Condition 19 of PA 09_0175), the results of the water quality monitoring for pH, TSS and oil and grease during the discharge events from Dam 3 in March and April 2017 exceeded the concentration limits defined by Condition L2.4 of the quarry's EPL. These discharge events should have been reported due to the degraded water quality recorded.</p> <p>It is recommended that any exceedances of water quality criteria during dam water</p>	<p>KEQ is currently revising the Water MP to improve practices and implement better mitigation of potential non-compliant discharges.</p> <p>The following actions will be taken:</p> <ol style="list-style-type: none"> 1. SW5 monitoring site will be included in the Water MP to be monitored during any discharge events from Dam 3 (LDP3). 2. Oil & grease will be monitored closely. Any exceedances in the total oil & grease content will be further analysed at a NATA laboratory to determine the source

Condition Number	Condition	Compliance Status and Recommendations	KEQ Comment
		discharges are reported, in accordance with the project approval conditions and the quarry's EPL.	<p>of the high oil & grease. Monthly testing as per the Water MP will continue.</p> <p>3. Any future exceedance of the TSS and oil & grease criteria will be reported. KEQ has since reported discharge that did not meet water quality criteria to the DPE and EPA.</p>
3.0 SOIL AND WATER / 3.3 Surface Water – Proposed Water Management Systemt	That controlled discharge of treated (e.g. flocculated) water be undertaken when total site storage levels are above 4.3 ML, which would provide the capacity to contain more rainfall events and reduce wet weather discharges (this assumes the dams are built to the capacities presented in Table 2 – refer to Appendix C).	<p><i>Not verified</i></p> <p>It is noted that there was little free-board on Dam 1 and 3 during the site inspection. No water level gauges were observed.</p> <p>It is recommended that water level gauges are installed in the dams and the relationship between water levels and total volume stored is established.</p>	<p>KEQ is investigating options for water level gauges.</p> <p>It is likely that KEQ will install a water level gauge at Dam 1, Dam 2 and Dam 3 for long term monitoring. It is anticipated that water level gauges will installed before 30 June 2018.</p>
4. BIODIVERSITY & CONSERVATION OFFSET / 4.1 Flora and Fauna	A report detailing the methods and results of the pre-clearing surveys will be prepared and submitted to OEH immediately prior to the commencement of the clearing operations.	<p>Administrative non-compliant</p> <p>Correspondence with T. Grugeon on 30 May 2017 confirmed that the pre-clearing surveys were undertaken as per Section 6.2 of the landscape and rehabilitation management plan, which was approved by DPE in accordance with Condition 32 of Schedule 3 of PA 09_0175. However, specific correspondence with OEH to address this commitment did not occur.</p> <p>It is recommended that the report detailing the methods and results of the pre-clearing surveys is submitted to OEH.</p>	<p>The <i>Vegetation Clearing Completion Report for Stage 1</i> (Kleinfelder, February 2017) will be submitted to the OEH by 31 October 2017. This report includes the methods and results of all the pre-clearing surveys taken during 2016.</p>

Condition Number	Condition	Compliance Status and Recommendations	KEQ Comment
4. BIODIVERSITY & CONSERVATION OFFSET / 4.1 Flora and Fauna	<p><u>Site Survey and Exclusion Fencing</u></p> <p>The extraction area/forest interface will be delineated to protect retained bushland areas on Lot 12 and 13. To achieve this, the quarry footprint boundary will be surveyed and pegged by a Registered Surveyor prior to the conduct of clearing operations. Plastic mesh fencing or star pickets and flagging tape will be installed along the extraction boundary for use as exclusion fencing. The fencing will function as a clearly marked 'exclusion' boundary for the machinery operations.</p>	<p>Compliant</p> <p>During the site inspection, evidence of appropriate signage delineating the conservation offset areas from the extraction area/project area was observed. In addition, it was noted that boundary tape and plastic mesh fencing was used during the clearing process. Fencing has not yet been erected to the extent identified in this commitment, which is unclear as to whether it applies to construction as well as to operations. It was noted that long-term exclusion fencing cannot be erected until after construction has been completed.</p> <p>It is recommended that exclusion fencing be installed as soon as practicable after the completion of construction to meet this commitment.</p>	KEQ engaged a fencing contractor in July 2017 to install exclusion fencing. The project boundary was also pegged by a surveyor in July 2017. The install of the exclusion fencing commenced on 14 August 2017. The exclusion fencing will be completed before Quarry operations commence.
4. BIODIVERSITY & CONSERVATION OFFSET / 4.1 Flora and Fauna	<p>Where possible, vegetation clearing activity will be timed so as to avoid the following breeding periods for hollow dependent fauna:</p> <ul style="list-style-type: none"> i) October – February (microbats); and ii) June – August (large forest owls and microbats in torpor). 	<p>Compliant</p> <p>Vegetation clearing for the project commenced in April 2016 and the majority of the project area was cleared between April and June 2016, with some clearing also occurring in July and November 2016.</p> <p>However, it is noted that the commitment is to avoid these periods "where possible" and that there will be ongoing clearing as part of the project.</p>	KEQ has made all efforts to avoid clearing during these periods and will continue to do so in the future. The majority of the clearing that has been undertaken on the KEQ site occurred in April-May 2016 with more limited clearing taking place from June – November 2016. Additional pre-clearing fauna surveys were undertaken at the end of May/ beginning of June 2016 by qualified ecologists as due diligence and as per Section 6.2.4 of the L&RMP. Microbats and large forest owls (i.e., Powerful Owl) were specifically targeted in these surveys. The targeted species were not found during these additional surveys.

Condition Number	Condition	Compliance Status and Recommendations	KEQ Comment
		It is recommended that future clearing is scheduled well in advance to avoid breeding periods for hollow-dependent fauna.	
4. BIODIVERSITY & CONSERVATION OFFSET / 4.2 Biodiversity Offset Strategy	Seasonal flora and fauna survey of the offset site will be undertaken in accordance with relevant OEH guidelines. In particular, seasonal survey for <i>Tetratheca juncea</i> and <i>Grevillea parviflora</i> ssp <i>parviflora</i> will be undertaken and reported to the NSW OEH.	Compliant No reduction in threatened flora populations was recorded at the monitoring sites in 2016. It is recommended that the results of all future seasonal surveys for <i>Tetratheca juncea</i> and <i>Grevillea parviflora</i> ssp <i>parviflora</i> be reported to OEH in accordance with this condition.	Annual biodiversity monitoring as per the Biodiversity Offset Area MP is undertaken annually by experienced ecologists. The 2016 monitoring report (Klienfelder, Nov 2016) was submitted to the DPE as Appendix 5 of the 2016 Annual Review (KEQ & SLR, March 2017). KEQ will submit future biodiversity monitoring reports separately to OEH to comply with this SoC.
11.0 QUARRY CLOSURE & REHABILITATION / 11.1 Rehabilitation Management Plan	Stockpiles will be protected with sediment fencing and planted with a sterile cover crop (annual species) to ensure stabilisation. Surface drainage in the vicinity of the stockpiles will be configured so as to direct any runoff around the stockpile.	Non-compliant Stockpiles are generally protected by sediment fences. A sterile cover crop has not been planted. It is recommended that a sterile cover crop is planted on soil stockpiles in accordance with the Landscape and Rehabilitation Management Plan.	KEQ will be seeding the soil stockpiles with a sterile crop (i.e., ryegrass, oats) as a long term sediment control. It is anticipated that this work will be undertaken by 31 October 2017.