

**IN THE LAND COURT OF QUEENSLAND**

**MRA026-21, MRA027-21, EPA028-21**

**BETWEEN:**

**NEW ACLAND COAL PTY LTD**

Applicant

**Oakey Coal Action Alliance Inc & ORS**

OCAA

**CHIEF EXECUTIVE, DEPARTMENT OF  
ENVIRONMENT AND SCIENCE**

Statutory Party

**OCAA CLOSING SUBMISSIONS**

**23 NOVEMBER 2021**

**SUMMARY OF SUBMISSIONS**

1. These submissions make good the following key propositions:
  - a) If the Applications before this Court are approved, the Applicant will continue to exceed noise and dust limits, and have unreasonable impacts on its neighbours, unless a strict adaptive management regime is implemented with a high degree of diligence.<sup>1</sup>
  - b) The 20-year long history of this mine has demonstrated that the Applicant would not apply the diligence necessary to implement that regime, which is complex, sophisticated and will need to adapt and change throughout the life of the mine.<sup>2</sup>
  - c) This is not the usual case where prescriptive mitigation steps can be locked in through conditions to prevent the exceedance of noise and dust limits.<sup>3</sup> Even with the tighter conditions proposed by OCAA (without

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<sup>1</sup> For example see below under “Can the Applicant be relied upon to get it right in Stage 3” at paras 291 to 320, “Applicant’s failure over many years to fix problems in the air quality modelling or validate the modelled results”, paras 404404 to 424.

<sup>2</sup> For example see below under “Can the Applicant be relied upon to get it right in Stage 3” at paras 291 to 320, “Extent and Quality of PM10 Monitoring”, paras 352 to 363, “Applicant’s failure over many years to fix problems in the air quality modelling or validate the modelled results”, paras 404404404404 to 424.

<sup>3</sup> For example, see below under “Conclusion on whether the Applicant can be relied on to get it right in Stage 3”, paras 312 to 320.

prejudice to its position that an approval should not be granted), the diligent implementation of the adaptive regime cannot be prescribed by conditions.

- d) Further, due to the complexities of isolating noise and dust from mining activities (compared with other sources) and of assessing noise and dust levels at sensitive receptors (as opposed to monitoring locations), enforcement is a difficult exercise.<sup>4</sup>
- e) In any event, the Applicant resists many of the conditions proposed by OCAA, in particular those that would make enforcement a less difficult task.<sup>5</sup> For example, the Applicant proposes conditions that leave open the argument that the Applicant's monitoring is the sole arbiter of its own conduct. The Applicant's conditions put the fox in charge of the hen house. That system has not worked in the past and will not work in the future.
- f) Conditions would therefore not prevent further unreasonable noise and dust impacts on the mine's neighbours. Only refusal will confidently prevent further unreasonable impacts.

### **The mine would cause unreasonable impacts without adaptive management**

- 2. Stage 3 is a proposal for a large mine close to where people live and work.
- 3. The usual techniques for mitigating impacts, such as noise attenuation and dust suppression, are simply insufficient for the scale of impacts predicted by this mine on its residential neighbours.
- 4. The modelling that has been done predicts significant exceedances of agreed air quality and noise limits without 'adaptive management'.<sup>6</sup>

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<sup>4</sup> For example see below under "The location of monitoring sites must reflect the sensitive receivers and allow the influence of the mine to be distinguished", paras 571 to 588

<sup>5</sup> For example see below under "The Applicant resists conditions capable of preventing unreasonable impacts", para 26.

<sup>6</sup> JER Air Quality (Exhibit 24, NAC.0126) pp37-39 and paras [50], [137] to [142]; T7-46 lines 35-38; NVMP (Exhibit 39, NAC.0044) s2.3 p 7.

5. The ‘adaptive management’ proposed for noise relies upon a complicated real time performance monitoring system that has not truly been tested, either here or anywhere else at a distance of less than two kilometres between source and receiver.<sup>7</sup> For it to protect the community, it is a system that will depend very heavily on the absolute diligence of both the Applicant and its consultants over the life of the mine.
6. The ‘adaptive management’ proposed for air emissions relies upon a series of monitors that are sufficiently representative of all receptor sites that may be exposed to elevated levels, and also relies upon the Applicant diligently and conservatively taking action when the monitors indicate the levels are being reached rather than seeking to blame the dust on other sources as a means to avoid ‘adaptive’ action.
7. This ‘adaptive management’ regime now proposed by the Applicant is largely untested. Perhaps too conveniently, both the Environmental Noise Compass system (for noise) and the Applicant’s new dust monitoring program was only implemented for Stage 2 once there had been a significant reduction in the mine’s operations, including almost a complete halt to night-time activities.

**History has demonstrated that the Applicant lacks the diligence to comply**

8. For the last 20 years the Applicant has been operating essentially the same activities, in the same basic location, close to the same sensitive receptors, with the same geography under the same meteorological conditions.
9. The Court can reasonably look to this history to assist in determining whether the proposed ‘adaptive management’ necessary to comply with conditions will work in this location.
10. If this Applicant had a 20-year history of demonstrated compliance and genuine concern and commitment to protecting the amenity of its neighbours, then it may be there would be no objection to that approach, novel as it may be. However, that is far from this situation.

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<sup>7</sup> For example see below under “The 630Hz filter”, paras 223 to 225 and “Can the Applicant be relied upon to get it right in Stage 3” at paras 291 to 320.

11. This Applicant has demonstrated quite the opposite.
12. The lived experience of the mine's neighbours is one of persistent disruption and unreasonable impacts caused by the noise and dust impacts of this mine, which have resulted in at least 545<sup>8</sup> genuine complaints over 20 years.<sup>9</sup>
13. The Applicant's own expert has accepted that there has been a history of unreasonable noise impacts at least prior to 2019.<sup>10</sup>
14. The Applicant has not demonstrated genuine concern for its neighbours or diligence in adapting to complaints over this period. On the contrary, the Applicant has demonstrated a continued disregard for compliance, even when its ongoing non-compliance was well known to it.
15. The clearest example is that in 2016, the Applicant was put on notice that its real time monitoring system was not working and was underpredicting noise. Despite this subjectively held knowledge, the Applicant did nothing to fix the issue and continued to mine closer and closer to local resident, Glenn Beutel's home. In August 2016, the mine was approximately 800m from his home. By August 2018 the mine was within 300m of his home.
16. His repeated complaints and distress led the Statutory Party to order compliance monitoring, which was conducted from June to August 2018 and which found multiple exceedances of the Current EA limits in the weeks it monitored noise from the mine, including many exceedances at night and in the early morning. It is not so much the repeated and ongoing breaches that is the issue: it is the fact that the harm was entirely foreseeable yet the Applicant proceeded anyway that is most telling.
17. From the last quarter of 2019, as the coal from the existing mine leases dwindled, nighttime operations have reduced and so have complaints.<sup>11</sup>

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<sup>8</sup> See Appendix 1 "Chronology of Noise Complaints", Appendix 3 "Chronology of Air Complaints".

<sup>9</sup> For example see below under "Complaints have been copious, and records are incomplete", paras 73 to 100

<sup>10</sup> For example see below under "The Three Stages in the JER Noise (not to be confused with the Stages 1, 2 and 3 of New Acland Coal mine)", paras 155 to 320.

<sup>11</sup> For example see below under "From October 2019 to date, mining operations are limited, and compliance is not demonstrative of future conduct", paras 268 to 290.

18. But now the Applicant seeks to somehow significantly *expand* its operations, including an approximate 50% increase from 2012 levels in the volume of coal extracted, under *lower* noise and dust limits.
19. The Applicant has not provided any updated modelling to demonstrate whether this will be possible.<sup>12</sup>
20. The Applicant's experts concede that the only way it will be possible to comply with lower limits is to actively manage noise and dust impacts in real time.<sup>13</sup>
21. For this to work, everything must go right. Monitoring must be constant and must be regularly adjusted for correlation with measured impacts on sensitive receptors. The noise and dust monitoring control room must be constantly staffed by personnel who are appropriately trained and exercise care and diligence. Plant and equipment must be turned on and off in response to anticipated noise levels within 15-minute increments.
22. The evidence has demonstrated that despite fundamental flaws in the Applicant's systems being established in 2016, the Applicant has not consistently staffed monitoring equipment, the Applicant has not appropriately trained staff in the use of monitoring equipment, and the Applicant has not correlated the monitoring equipment to ensure it was representative of levels at sensitive receptors.<sup>14</sup>
23. As a result, sensitive receptors continued to experience noise significantly above the regulated limits for several more years.<sup>15</sup>
24. The Applicant has not demonstrated the level of concern and diligence that would be required to make its proposed adaptive management regime work in practice.

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<sup>12</sup> For example see below under "Applicant's failure over many years to fix problems in the air quality modelling or validate the modelled results", paras 404 to 424.

<sup>13</sup> See, for example, T7-73, lines 1-5., T6-32, lines 13-15, NVMP (Exhibit 39, NAC.0044) s2.3 p 7 and JER Air 2021 (Exhibit 24, NAC.0126) pp37-39.

<sup>14</sup> For example see below under "The initial TARP was a failure", paras 177 to 191.

<sup>15</sup> For example see below under "Stage 1C: When the Winter Survey was finalised (2016-October 2018)", paras 192 to 259.

25. Even now the Applicant's rejection of OCAA's proposed tightening up of conditions to 'lock' the Applicant into its commitments, demonstrates that nothing has materially changed in the Applicant's attitude towards environmental impacts. The Applicant has not turned over a new leaf. No new approach has been adopted.

**The Applicant resists conditions capable of preventing unreasonable impacts**

26. It is made apparent by the Applicant's Draft EA and evidence that the Applicant is highly resistant to conditions that can actually be easily enforced. For example:<sup>16</sup>
- a) Until recently conceding that performance monitoring may be used by the Statutory Party for compliance investigations, it resisted the real time data being used for compliance, despite this being the most efficient method. It still resists specific direction in the EA that the Administering Authority may use the audio and data from the Type 1 monitor for that purpose.
  - b) It resists a condition requiring that the Performance Noise Monitoring Program must include the use of the Type 1 calibrated microphone and audio recordings.
  - c) It has consistently pushed for conditions which require it to monitor its own impacts, so it can later argue that the only way a breach can be established is by the compliance monitoring required by the EA, not by other monitoring done by, say, by the Statutory Party or a third-party consultant. It resists OCAA's changes to make it clear that a breach of F1 and F3 can be established by other means.
  - d) It resists conditions requiring the annual noise monitoring report to provide specific details of the corrections in the noise TARP system (both past and predictive).

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<sup>16</sup> For more detail see "OCCA Draft EA Conditions" below at para 443 to 673.

- e) It resists conditions that prevent it from commencing Stage 3 until the Noise and Vibration Management Plan and Air Emissions Management Plan have been approved by the Administering Authority.
- f) It does not want to lock in the areas of extraction, which leaves any approval ambiguous and with the Applicant to argue it can mine anywhere in the mining lease area as it has argued in relation to its Current EA in relation to its mining of West Pit since 2016. Mr O'Dwyer would not even agree to be limited to 'generally in accordance with' the pits in Figure 1 but rather said "we're seeking authority to mine three pits and the flexibility to move the bounds of those pits based on exploration and economics at the time."<sup>17</sup>
- g) OCAA proposes that the EA say:
- The holder of this environmental authority must ensure that dust and particulate matter emissions generated by the mining activities do not cause or contribute to exceedances of each of the air quality limits and nuisance limits in Table B1- Air Quality Limits and Monitoring at a sensitive place or commercial place.
- (emphasis added)
- The Applicant not only opposes the words "or contribute to" but instead of "the air quality limits and nuisance limits", it simply wants the word "limits" in the condition – to leave room for it to later argue that it does not need to comply with the nuisance limits.
- h) It is resistant to compliance monitors at certain locations (notwithstanding evidence from its own expert that the receptor may be impacted by levels over the limits in the EA without adaptive management and notwithstanding that the receptor is not fully represented by compliance monitors at other sites) and instead suggests trend monitors.
- i) It is resistant to PM<sub>2.5</sub> and meteorological monitors east and west of the mine. Having those monitors will enable firmer conclusions to be arrived

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<sup>17</sup> T4-59, lines 19–21.

at regarding whether an exceedance was in fact attributable to the mine – something that is clearly not in the Applicant’s interests.

- j) It wants to change the conditions to allow it to make wholesale changes to **Table B1: Air quality limits and monitoring requirements** through a secondary consent process, without amending its EA.
- k) It is resistant to a condition that requires changes to the air quality limits for PM<sub>10</sub> and PM<sub>2.5</sub> (in accordance with any changes to the *Environment Protection (Air) Policy 2019*) to take effect from 1 January the following year, notwithstanding the significant notice period provided before such changes are made to the policy.
- l) It wants the air quality limits to apply only to sensitive receptors, not at the monitor (which leaves scope for it to argue that an exceedance at the monitor is not necessarily an exceedance at the receptor – one of the strategies it has used in the past).
- m) It resists conditions requiring it to place online a report outlining whether any exceedance of the air quality limits is attributable to the mine within a reasonable timeframe of the exceedance being recorded.

### **Conditions will not prevent further unreasonable impacts, refusal will**

27. In the ordinary course, the Court should not assume, without more, that conditions will not be complied with. The starting point in most cases must be that conditions will be complied with.<sup>18</sup> However, care must be taken with that proposition. If it was an absolute rule – a proposition of law – that one could simply assume that conditions will be complied with and not look any further, then in every case, all an applicant would need to do is to put forward a set of noise and dust limits and there would be no need for modelling or analysis at all. That simply cannot be correct. While normally a court may proceed on the basis that the conditions of the EA will be complied with, that presumption can be rebutted by evidence or circumstances to the contrary. That occurred in *Papillon*

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<sup>18</sup> See *Queensland Industrial Minerals Pty Ltd v Younger* [2017] QLC 39 at [19]; and *MGT Minerals Pty Ltd v Dunn* [2020] QLC 5 at [67].

*Mining and Exploration Pty Ltd v Maddock* [2003] QLRT 62 (*Papillon*) where Kingham DP recommended refusal of a mining lease and environmental authority due to the past performance issues ventilated at the hearing and the inability to recommend conditions with clear operating parameters that were reasonably unambiguous.<sup>19</sup> OCAA says that this is such a case.

28. Here, the modelling does not demonstrate that the limits will be complied with without adaptive management. That in itself is a differentiating factor to the ordinary situation, as Mr Tardio pointed out on a number of occasions.
29. Further, as the Court has heard through the noise and dust experts, ascertaining whether or not noise or dust is attributable to the mine or to some other source is a complex exercise. Thus, the Court cannot be confident that the simple imposition of limits in the EA will mean that those limits will be met. The Court cannot simply rely upon the Administering Authority to enforce the limits – because that process in and of itself is incredibly onerous.
30. The history of this mine demonstrates that this Court cannot have confidence that the Applicant would apply the concern and diligence necessary for stringent conditions to prevent unreasonable impacts on nearby residents.
31. From that history Court should not be confident that conditions would prevent further unreasonable impacts on the mines neighbours and should therefore recommend refusal. The history of this mine should not be allowed to continue.

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<sup>19</sup> *Papillon Mining and Exploration Pty Ltd v Maddock* [2003] QLRT 62 at [52] and [54].

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## INTRODUCTION

32. This is a full rehearing<sup>20</sup> of New Acland Coal Pty Ltd's (**Applicant**) applications for two (2) mining leases (**MLAs**), and a corresponding amendment to the existing environmental authority (**EA Amendment Application**),<sup>21</sup> collectively termed the **Applications**.
33. In response to the EA Amendment Application, the Statutory Party issued a draft environmental authority (**Original Draft EA**),<sup>22</sup> which has now been superseded by updated drafts reflecting changes in the Coordinator-General's (**CG**) conditions and the evidence during the rehearing.
34. The procedural history, statutory framework and the functions of the Court for this rehearing are well known to the Court<sup>23</sup> and, therefore, need not be dealt with in detail. Relevant statutory provisions are addressed in the body of these submissions.
35. These submissions will concentrate on the substantive issues in dispute raised by OCAA's Amended Grounds of Objection, in particular:<sup>24</sup>
- a) the Applicant will not adequately manage noise and air impacts;
  - b) the Court should therefore recommend the applications be refused; or, in the alternative:
  - c) if the Court recommends approval, the Court ought to also recommend conditions to improve the clarity, transparency and enforceability of the EA as set out in OCAA's Draft EA in Appendix 5 – OCAA's Draft EA Conditions.
36. To further assist the Court, OCAA has also appended the following to these submissions:

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<sup>20</sup> As ordered in *OCAA v NAC* [2021] HCA 2.

<sup>21</sup> The formal applications are found in Exhibit 39, EHP.0120 (for MLA5032), EHP.0119 (for MLA70002) and EHP.0003 (for the EA Amendment Application). The Applicant has informally sought to modify its applications in a letter from the Applicant's solicitor dated 27 May 2021, found in Exhibit 39, F.0063, soft pages 7-14.

<sup>22</sup> Exhibit 39, EHP.0009.

<sup>23</sup> As explained in *OCAA v NAC* [2021] HCA 2.

<sup>24</sup> OCAA's Amended Grounds of Objection (Exhibit 39, F.0071).

- a) a chronology of noise complaints and records of noise events - compiled from various sources which are all in evidence, including the complaints registers, disclosed documents and Mr Beutel and Ms Harrison's affidavits<sup>25</sup> (Appendix 1 – Chronology of Noise Complaints);
- b) a chronology of key dates (Appendix 2 - Chronology of Key Dates);
- c) a chronology of air complaints (Appendix 3 - Chronology of Air Complaints);
- d) the progression of West Pit (Appendix 4 - The Progression of West Pit);
- e) OCAA's proposed (without prejudice) conditions (Appendix 5 – OCAA's Draft EA);
- f) OCAA's submissions on *NAC v OCAA* [2021] QLC 29 (Appendix 6 - OCAA's submissions on *NAC v OCAA* [2021] QLC 29); and
- g) a glossary of terms (Appendix 7- Glossary).

## THE APPLICATIONS

37. The starting point for the Court fulfilling its statutory function and correctly exercising its jurisdiction is to identify *the applications* that are before it and the nature and extent of the activities for which approval is sought in these applications. This is a vital first step because:

- a) The Court has jurisdiction to assess *the applications* against the relevant statutory criteria and make recommendations to the final decision-makers.<sup>26</sup>

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<sup>25</sup> OCAA Noise Chronology (No exhibit number, OCA.0256).

<sup>26</sup> See MRA, ss 265(2)(a), 265(5), 268(1) and 269(2); EPA, ss 185(1), 190(1) and 191. Similarly, for applications to amend an EA such as here, s 235 of the EPA limits consideration of the matters in s 176 (and, by implication, s 191) "to the extent they relate to the proposed amendment" (i.e. the application).

- b) The applications mark out the boundaries of the consent sought<sup>27</sup> and any approval cannot “be wider than the application to which it relates.”<sup>28</sup> The Court cannot recommend approval of mining activities of a nature different to, or to an extent or with other features greater than, the mining activities for which consent was sought in the applications.<sup>29</sup>
- c) As the applications that were publicly advertised formed the basis for any objections (or any decision not to object), it would be contrary to the statutory process for objections, and to procedural fairness, if a recommendation from the Court allowed mining activities that were different or greater in extent than what was publicly advertised.<sup>30</sup>
- d) The Court’s recommendations (or any final decision adopting the recommendations) may be invalid if their effect or the effect of a condition leaves open the possibility that mining carried out in accordance with it will be significantly different from the activity for which applications were made<sup>31</sup> or are uncertain.<sup>32</sup> In such a case:
- i) the purported decision is not a recommendation in relation to the application;<sup>33</sup> and

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<sup>27</sup> *Weston Aluminium Pty Ltd v Environment Protection Authority* (2007) 82 ALJR 74; [2007] HCA 50 at [14]; *Allandale Blue Metal Pty Ltd v Roads and Maritime Services* [2013] NSWCA 103; 195 LGERA 182 at [296]-[298].

<sup>28</sup> *Mison v Randwick Municipal Council* (1991) 23 NSWLR 734 at 737; *Sericott v Snowy River Shire Council* (1999) 108 LGERA 66; [1999] NSWCA 480 at [46]; *Winn v Director General of National Parks and Wildlife* (2001) 130 LGERA 508; [2001] NSWCA 17 at [13].

<sup>29</sup> *Sericott v Snowy River Shire Council* (1999) 108 LGERA 66; [1999] NSWCA 480 at [46].

<sup>30</sup> Procedural fairness is central to the objection hearings under the MRA and EPA: *OCAA v NAC* [2021] HCA 2 at [57], [65].

<sup>31</sup> *Mison v Randwick Municipal Council* (1991) 23 NSWLR 734 at 737-738 (Priestley JA with whom Clarke and Meagher JJA agreed). This comparative exercise is not to be undertaken in some kind of sterile vacuum but requires the proper context (including the circumstances in which the development consent was granted): *Moto Projects (No 2) Pty Ltd v North Sydney Council* (1999) 106 LGERA 298, 309-310 [55]-[67] (Bignold J); *Tarkine National Coalition Inc v Schaap* [2014] TASSC 66 at [51]-[52] (Estcourt J).

<sup>32</sup> *Sunland Group Ltd v GCCC* [2021] HCA 35 at [19]-[21] per Gordon J and [58]-[60] per Steward J (with whom Kiefel CJ, Keane and Gleeson JJ agreed).

<sup>33</sup> *Mison v Randwick Municipal Council* (1991) 23 NSWLR 734 at 737-738.

- ii) the Court will have fallen into jurisdictional error as the Court's jurisdiction is limited to recommend refusal, approval and any conditions of approval for the application.<sup>34</sup>
38. Identifying *the applications* that are before the Court and the extent and nature of the activities for which approval is sought by the Applicant in this case is made more difficult because:
- a) the Applicant's description of the Stage 3 has changed significantly over time;
  - b) the applications span activities occurring across two existing mining leases (the stage 1 and 2 MLs) and the two mining leases for which approval is sought;
  - c) some activities commenced in the past that will continue into the future, such as rehabilitation of past mining areas, are not the subject of the applications;
  - d) some activities commenced in the past that will continue into the future for the processing of coal from the new pits, such as the ongoing use and possible future expansion of the Coal Handling Preparation Plant (**CHPP**), are the subject of the EA Amendment Application but not the MLAs; and
  - e) the Applicant has already mined a substantial part of its proposed Stage 3 by mining the northern part of the proposed Manning Vale East Pit on the Stage 2 ML since 2016 as part of "West Pit".
39. Further, despite the fact that the Statutory Party made an application dated 7 May 2021,<sup>35</sup> to clarify which activities were to be assessed for the proposed amended EA, the 'clarification' has not clarified much.

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<sup>34</sup> MRA, s269(2) and EPA, s190(1).

<sup>35</sup> F.0052.

40. Despite the Applicant's change in the description of the EA application (by reference to its 27 May 2021 letter, discussed below), the EA Amendment Application is defined by reference to:

- a) the description of Stage 3 in Ch 3 (Project Description) of the EIS and Ch 3 (Revised Project Amendments) of the AEIS;<sup>36</sup> and
  - b) the CG Evaluation Report.<sup>37</sup>
41. For MLA 50232, lodged on 24 May 2009, the application was originally for a much greater area with much larger pits, including an enormous "Manning Vale Pit" mining the entire town of Acland.<sup>38</sup> The Applicant partially abandoned its original application on 25 June 2014.<sup>39</sup>

42. In the Affidavit of David Patrick O'Dwyer affirmed 5 August 2021,<sup>40</sup> (**O'Dwyer First Affidavit**) Mr O'Dwyer says that:

The initial development plan (IDP) for MLA 50232 that was submitted by the Applicant with the MLA in May 2007 reflected the 10mtpa mine plan that was initially proposed. As is noted in the Approvals Chronology, that mine plan was significantly reduced and is no longer reflective of the Applicant's current plans which are set out on this affidavit. The Applicant intends to prepare a revised IDP for MLA 50232 taking into account the current mine plan and any other matters that are required to be addressed and updated as a result of the current objections hearing. That updated IDP will be submitted to the Department of Resources in due course in connection with seeking final approval for the mining lease.<sup>41</sup>

43. It is not clear to OCAA whether or not, in light of this statement, the requirements of s245(1)(n) of the MRA have been satisfied. However, OCAA has not raised this issue in its grounds and therefore does not pursue it through this Land Court hearing. Nevertheless, OCAA is proceeding on the basis that:

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<sup>36</sup> Exhibit 39, EHP.003, soft pages 34, 36 and 51.

<sup>37</sup> Exhibit 39, EHP.003, soft page 51. The CG Report is Exhibit 39, EHP.0016.

<sup>38</sup> Exhibit 39, EHP.0120 and TMP.0954.

<sup>39</sup> See Exhibit 39, EHP.0121.

<sup>40</sup> Exhibit 16, NAC.0010.

<sup>41</sup> O'Dwyer First Affidavit (Exhibit 16, NAC.0010) [42].

- a) the application is the reduced application for extraction as described in the EIS, and as described in the IDP attached to the MLA70002 application<sup>42</sup>; and
  - b) that the application seeks approval to mine the three pits with associated activities on ML 50232 in the area marked with a red boundary on Figure 1 in the Applicant's proposed EA.
44. For MLA70002, lodged on 15 January 2015, the application includes the Initial Development Plan shown in MLA70002, which states that no coal mining activities are planned on the tenure, and that the tenure is proposed for the construction of a rail spur to support the mining operations planned for MRA50232.<sup>43</sup>
45. Without formally amending its EA Amendment Application, MLAs or the Initial Development Plan for the mine, given that the Applicant has now mined "West Pit" (and thereby mined the northern part of Manning Vale East Pit proposed in its Stage 3), the Applicant now says (informally, though in writing) that it seeks approval only for the mining activities identified in the letter from its solicitor, dated 27 May 2021,<sup>44</sup> thereby excluding further mining in West Pit but including:
- a) the northern part of Willeroo Pit and associated out-of-pit dump on the Stage 2 ML;
  - b) Manning Vale West Pit, Manning Vale East Pit and Willeroo Pit and associated out-of-pit dumps on MLA 50232; and
  - c) the CHPP and associated infrastructure and activities on the stage 1 and 2 MLs;
  - d) vehicles transporting run-of-mine (**ROM**) coal from the mine pits to the CHPP and product coal while on the mining leases.
46. Of course, that part of the Stage 3 pits that has already been mined is no longer part of the application, given that the EA applies prospectively. Hence, the

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<sup>42</sup> Exhibit 39, EHP.0119, commencing at soft page 38.

<sup>43</sup> Exhibit 39, EHP.0119, commencing at soft page 38 at p 46.

<sup>44</sup> Exhibit 39, F.0063, soft pages 7-14 (Letter from Karen Trainer to DES, dated 27/5/21).

Applicant has abandoned that part of its application that sought approval for that part of the mine.

47. In order to clarify the activities that remained part of the application, given the mining of West Pit and the uncertainties created by the words “indicative only” on Figure 1, the Statutory Party sought orders that the Applicant provide, among other things:

a revised ‘Figure 1: Revised Project Overview – Mine Area’ which depicts clearly, legibly and with adequate resolution, the areas in which mining activities are planned to take place for which authorisation is sought by its amended environmental authority the subject of this Mining Objections Hearing by:

a. showing only those areas in which mining activities are planned to be conducted;

b. for each such area, showing clearly which part is activity that constitutes the disturbance for which authorisation is sought including, in particular, the areas known variously as ‘West Pit’, ‘Manning Vale East Pit’, ‘Manning Vale West Pit’ and ‘Willeroo Pit’;

c. identifying separately all ‘out of pit’ dumping areas (including the ‘out of pit’ spoil dumps associated with the Manning Vale East, Manning Vale West and Willeroo mine pits)<sup>45</sup>

48. One of the grounds upon which the orders was sought was in the Annexure to the application:<sup>46</sup>

Figure 1 in the NAC EA:

a. does not adequately delineate between those activities yet to occur for which authorisation is sought by the amendment to the Environmental Authority, and those activities which have already taken place (whether the subject of a subsisting approval or otherwise);

b. is marked ‘indicative only.’

49. In response to that Application, the Applicant provided the letter dated 27 May 2021.<sup>47</sup>

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<sup>45</sup> General Application of Department of Environment and Science (F.0052) p 4.

<sup>46</sup> General Application of Department of Environment and Science (F.0052) p 6 para [11].

<sup>47</sup> F.0063 p 11.

50. In response to that letter, the Statutory Party set out its position in a letter dated 4 June 2021:<sup>48</sup>

As any approval is prospective, it is important in our view that the exercise be focused only on that for which approval must be sought. This helps to narrow the issues for the Court and for the experts and to serve as a public record of the scope of the application and, therefore, any consequent approval.

#### Resolved matters

Your client's response of 27 May 2021 addressed adequately the following matters (subject only to the need to formalise what has so far been given to the Statutory Party to assist its [ie, the Statutory Party's] understanding):

- a. the West Pit area is not the subject of the amendment application;
- b. the area of the mining pits for which authorisation is sought by the amended environmental authority have been delineated satisfactorily (by marking as 'new mine area');
- c. that the part of Willeroo pit on mining lease 50216 is to be assessed as part of the amendment application;
- d. the experts will be in a position to ascertain the areas in which the mining activities are to take place (ie a prospective view); and
- e. the amended figures are now more legible.

...

#### Shapefiles

Your client has not provided Shapefiles which would allow the Statutory Party and others to make any calculations with respect to the impacts. There has been no response to our request for this.

The Statutory Party presses for such files, as it will not only facilitate an expeditious hearing and provide verification of New Acland's claims, but provide an accurate record of what New Acland proposes, and a record which can be used as a reference point during the life of the project.

51. Shapefiles were then provided (referred to in the cross-examination of Mr McGowan as the June shapefiles).<sup>49</sup>

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<sup>48</sup> F.0065 p 14.

<sup>49</sup> Eg at T9-11.

52. As OCAA understood the situation (at least before Mr McCowan’s evidence), the JER instructions to the experts reflected the extent of extraction activities on the Stage 2 lease area that the Applicant seeks approval for through this process.<sup>50</sup>

The only mining (extraction) which is to be assessed for the proposed amended EA is as follows:

(a) on ML50216, mining (extraction) which is related to and would not occur in the absence of ML50232, being:

(i) that part of Willeroo in ML50216 shown as “new mining area”; and

(ii) a strip of contiguous land generally 15-40m wide, with a maximum width of 100m in a limited area for the connection of existing mining on ML50216 into Manning Vale East, which is identified as “Extent of mining progression across shared boundary” in Figure 2; and

(b) on ML50232 are those areas marked as ‘Manning Vale West’, ‘Manning Vale East’ and that part of ‘Willeroo’ all shown as “new mining area”.

53. Dr McCowan’s evidence was that the June shapefiles don’t reflect those used to create Figure 1 in the Coordinator General’s assessment<sup>51</sup> or those used in the EIS. Thus, the delineation of the disturbed areas on the Stage 3 ML shown in the 27 May 2021 letter do not reflect the “applications”.

54. In so far as the delineation of extraction and overburden dumping on Stage 2 is concerned, the Applicant has confirmed by email dated 17 November 2021 that the areas:<sup>52</sup>

- a) for extracting on the Stage 2 ML shown in the Coordinator General Figure 1 is 20ha (cf 21 ha in the Additional Information to the EIS); and
- b) for overburden dumping on the Stage 2 ML shown in the Coordinator General Figure 1 is 103ha (cf 102ha in the Additional Information to the EIS).

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<sup>50</sup> Exhibit 39, OCA.0209 [3.36].

<sup>51</sup> T9-11, lines 34–37.

<sup>52</sup> Exhibit 46, OCA.0275.

55. In summary then, it is OCAA's submission that the areas for which approval is sought (in terms of extraction and overburden dumping) are those that are proposed in OCAA's Draft EA in Appendix 5 - OCAA's Draft EA Conditions (provided without prejudice to its primary position that approval ought not be granted).

## **GROUND OF OBJECTION**

56. OCAA in its Amended Grounds seeks that the mining lease applications should be refused on the following grounds:
- a) the past performance of the Applicant has not been satisfactory;<sup>53</sup>
  - b) there will be significant adverse environmental impacts caused by the operations to be carried out under the authority of the proposed mining lease;<sup>54</sup>
  - c) the public right and interest will be prejudiced;<sup>55</sup> and
  - d) good reasons can be shown for a refusal to grant the mining lease.<sup>56</sup>
57. OCAA, in the Amended Grounds, also seeks that the application to amend the environmental authority should be refused on the following grounds:
- a) approval of the application and construction of the mine expansion would have adverse effects on the character, resilience and value of the receiving environment;<sup>57</sup>
  - b) approval of the application and construction of the mine expansion would be contrary to the public interest;<sup>58</sup>
  - c) approval of the application and construction of the mine expansion would cause material and serious environmental harm;<sup>59</sup> and

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<sup>53</sup> Amended Ground 2(e).

<sup>54</sup> Amended Ground 2(g).

<sup>55</sup> Amended Ground 2(h).

<sup>56</sup> Amended Ground 2(i).

<sup>57</sup> Amended Ground 6(f).

<sup>58</sup> Amended Ground 6(g).

<sup>59</sup> Amended Ground 6(h).

- d) approval of the application would be contrary to appropriate consideration and application of the environmental protection policies on noise and air.<sup>60</sup>
58. Further, regarding the EA Amendment Application, OCAA contends that there can be no confidence that such conditions would be complied with, and says accordingly that it would be contrary to the public interest to grant an amended environmental authority to this applicant.
59. OCAA's Amended Grounds particularised the ways in which the conditions proposed by the Applicant in the version of the EA it filed on 15 February 2021 did not address its objections, while reserving OCAA's rights to make submissions on other changes to conditions that may be appropriate following the evidence presented during the objection hearing. The draft EA provided by the Applicant after the close of evidence did not address those concerns (the **Applicant Draft EA**).

## NOISE

60. The Applicant has, for decades, caused serious and detrimental noise impacts to neighbours surrounding the mine. While these neighbours complained – to both the Applicant and to the Statutory Party – the consistent result was that very little changed. Save for the issue of a single Penalty Infringement Notice, no enforcement action has been taken against the Applicant with respect to noise.<sup>61</sup> This is not evidence of a lack of noise exceedances. Rather, it is evidence of the failure of the existing EA to adequately manage and mitigate the Applicant's noise impacts, and of the Applicant's apathy towards the nuisance caused to its neighbours.

### **Applicant's History of Mining**

61. Since beginning mining operations on the site in 2002, the Applicant has consistently demonstrated great difficulty with meeting the limits set out in its

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<sup>60</sup> Amended Ground 6(i).

<sup>61</sup> O'Dwyer Second Affidavit (Exhibit 17, NAC.0021) [92].

EA. There is a corresponding long and consistent history of complaints regarding noise from the mine from the neighbouring community.

*The impact on the community has been significant*

62. Mr Beutel and his family have lived in the town of Acland for decades.

I grew up familiar with the peace and quiet of a country at night, where I can hear the mopokes calling or the koalas bellowing.<sup>62</sup>

63. Now, at its worst, his home is like “being on the tarmac at an airport, with many planes’ engines roaring.”<sup>63</sup>

64. Mr Beutel’s detailed diaries tell the story of his experience, as felt in the moment, between 2013 and 2020.

2:51am, 23 December 2013: “Took sleeping pills earlier because noise was v[ery] bad.”<sup>64</sup>

3:30am, 10 January 2014: “Lying awake for ages...please stop the noise.”<sup>65</sup>

5:00am, 20 January 2014: “Please stop the mine noise”.<sup>66</sup>

4:24am, 28 December 2017: “Explosives noises – awful noises.”<sup>67</sup>

65. These are only a few of hundreds of entries documenting significant sleep disturbance and distress.

66. Ms Harrison’s experience, which, like Mr Beutel’s, was unchallenged,<sup>68</sup> is comparable.

From approximately seven or eight months into operations, I heard loud machinery for a lot of the night. I experienced what had been up until this point in time our quiet country home becoming noisy at night.

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<sup>62</sup> Affidavit of Glenn Beutel sworn 4 August 2021 (**Beutel Affidavit**) (Exhibit 1, F.0075) [28].

<sup>63</sup> Beutel Affidavit (Exhibit 1, F.0075) [27].

<sup>64</sup> Beutel Affidavit (Exhibit 1, F.0075) GB-6, p 48.

<sup>65</sup> Beutel Affidavit (Exhibit 1, F.0075) GB-6, p 49.

<sup>66</sup> Beutel Affidavit (Exhibit 1, F.0075) GB-6, p 52.

<sup>67</sup> Beutel Affidavit (Exhibit 1, F.0075) GB-6, p 69.

<sup>68</sup> T2-22, lines 46 – 37, line 8.

67. The situation escalated with the commencement of Stage 2, with the impacts becoming “far worse”<sup>69</sup>. Ms Harrison’s diaries record her frequently being kept awake at night, her exhaustion during the day, all despite her making complaints to the number provided by the Applicant for that purpose.<sup>70</sup>

26 January 2007: Went to bed about midnight. Got woken up by the mine. at 3:15am with terrible noise. I rang the mobile number but did not get an answer. Tried 3 times.

19 April 2007: Rang the mine about noise. Rang David Genn [mine employee]. I could not get the noise stopped at the mine. I was crook all day and could hardly do anything. I tried to get the mine to come up to hear the noise but they did not come till at least 10am when it had quietened down. I rang David Genn about the noise and said I could not cope with the noise one having to ring up during the night.

68. Many other complaints are recorded across complaints registers from complainants who are not identified but demonstrate the wide-ranging impacts that have fallen on the broader community.
69. The following two examples give insight not only into the extent of the noise felt by the community but also how it permeates their everyday lives.
70. For example, on 10 October 2017, the Statutory Party received the following email:

Yesterday we had important people from the UK visit (person plus secretary). All was going well as they saw a kangaroo, eventually a koala...an echidna and lots of birds and even a snake. We did the Aussi BBQ and then when we went to go to bed the noise from the mine [w]as really noisy and hard to go to sleep. So much for the Aussi farm living. As the mine have still not got approval for stage three one would assume they would be on their best behaviour.

71. On 13 May 2018, the Statutory Party received an email in the early hours of the morning:

It is 2am on Sunday morning. Happy Mother’s day. The noise from Acland is of rocks crashing. A bit different as there is no vibration like usual and noise difference. The smell is there and I feel the dust on my chest. I resent having to get out of bed in the cold to make this email and I am tired.

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<sup>69</sup> Affidavit of Aileen Harrison sworn 4 August 2021 (**Harrison Affidavit**) (Exhibit 3, OCA.0215) [27].

<sup>70</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [33] - [38], [64] - [69].

72. The Applicant during the 2021 rehearing accepted that the mine noise had an unreasonable impact on its neighbours.<sup>71</sup>

*Complaints have been copious, and records are incomplete*

73. 418 complaints<sup>72</sup> about noise from the New Acland Coal mine have been recorded since commencement of operations. The Court has accepted, or has indicated that it is likely to accept, that the complaints (and diary records of noise events) by Mr Beutel and Ms Harrison were honestly or genuinely held and made.<sup>73</sup> How many more went unrecorded is unclear.
74. There is no single, comprehensive complaints register to document locals' experience with the mine. Rather, complaints are recorded across a number of documents in this matter.
75. Both the Statutory Party and the Applicant have produced various registers, intended to compile information about complaints made regarding the Applicant's conduct of the mine.<sup>74</sup>
76. When these registers are considered together with the other material disclosed in the 2021 rehearing, it is abundantly clear that the registers do not capture all the complaints made. Both the Statutory Party and the Applicant put caveats on the provision of their registers, acknowledging the potential that complaints may not have been recorded.<sup>75</sup>
77. Where the Applicant's complaints registers are concerned, Ms Harrison's personal records of complaints made to the Applicant about noise are mostly absent from the Applicant's records. Table 1 below demonstrates the extent of the inconsistency.
78. Table 1 contains a summary of:

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<sup>71</sup> T4-21, lines 10–22.

<sup>72</sup> OCAA Noise Chronology (OCA.0256). The 418 comprises complaints either recorded in registers or recorded in personal records as Mr Beutel or Ms Harrison 'ringing up'. It doesn't include general comments about noise events.

<sup>73</sup> T4-18 line 13 and T1-47, lines 36–38.

<sup>74</sup> E.g. Exhibit 39 OCA.0015, OCA.0249, OCA.0250.

<sup>75</sup> Exhibit 40, OCA.0270.

- a) the dates that Ms Harrison recorded a noise concern as reflected in her first affidavit;
- b) whether a complaint was made to the Applicant about that concern;
- c) whether the concern is recorded in the Applicant's complaints register; and
- d) whether Mr Moore conducted monitoring at the time that the concern was recorded.

**Table 1: Mr Moore' monitoring and Aileen Harrison's lived experience**

| <b>Date of Ms Harrison's noise concern<sup>76</sup></b> | <b>Complaint made to the Applicant?<sup>77</sup></b> | <b>Complaint of that date in Applicant's Register?<sup>78</sup></b> | <b>Applicant's monitoring<sup>79</sup></b> |
|---|--|---|--|
| 25 August 2006  | 25 August 2006                                       | Record of dust complaint, no record of noise complaint              | No monitoring                              |
| 20-21 September 2006                                    | 21 September 2006                                    | Yes   | No monitoring                              |
| 28 September 2006                                       | 28 September 2006                                    | Yes   | No monitoring                              |
| 14 December 2006  | No   | N/A   | No monitoring                              |
| 26 January 2007   | 26 January 2007                                      | No  | No monitoring                              |
| 27 January 2007   | 27 January 2007                                      | No  | No monitoring                              |
| 9 March 2007  | 9 March 2007   | No  | No monitoring                              |
| 16-17 April   | 17 April 2007  | No  | No monitoring                              |
| 18 April 2007   | 18 April 2007 (by Margaret Hassall)                  | No  | No monitoring                              |
| 19 April 2007   | 19 April 2007  | No  | No monitoring                              |

<sup>76</sup> Harrison Affidavit (Exhibit 3, OCA.0215).

<sup>77</sup> Harrison Affidavit (Exhibit 3, OCA.0215).

<sup>78</sup> NAC Complaint Register 2002-2016 (Exhibit 39, OCA.0015).

<sup>79</sup> O'Dwyer Second Affidavit (Exhibit 17, NAC.0021).

|                      |                   |     |                      |
|----------------------|-------------------|-----|----------------------|
| 23 April 2007        | 23 April 2007     | No  | No monitoring        |
| 3 May 2007           | 3 May 2007        | No  | No monitoring        |
| 15 June 2007         | No                | N/A | No monitoring        |
| 3-4 July 2007        | 4 July 2007       | No  | No monitoring        |
| 4-5 July 2007        | 5 July 2007       | No  | No monitoring        |
| 5 September 2007     | No                | N/A | No records disclosed |
| 8 September 2007     | No                | N/A | No records disclosed |
| 9 September 2007     | No                | N/A | No records disclosed |
| 10-11 September 2007 | 11 September 2007 | Yes | No records disclosed |
| 12 September 2007    | 12 September 2007 | Yes | No records disclosed |
| 14 September 2007    | 14 September 2007 | No  | No records disclosed |
| 17 September 2007    | 17 September 2007 | No  | No records disclosed |
| 21 September 2007    | No                | N/A | No records disclosed |
| 22 September 2007    | No                | N/A | No records disclosed |
| 25 September 2007    | 25 September 2007 | No  | No records disclosed |
| 26 September 2007    | 26 September 2007 | No  | No records disclosed |
| 2 October 2007       | No                | N/A | No records disclosed |
| 4 October 2007       | No                | N/A | No records disclosed |
| 6 October 2007       | 6 October 2007    | No  | No records disclosed |

|                  |  |     |   |
|------------------|--|-----|---|
| 9 October 2007   | 9 October 2007                           | No  | No records disclosed  |
| 14 October 2007  | 14 October 2007                          | No  | No records disclosed  |
| 12 October 2007  | 12 October 2007                          | No  | No records disclosed  |
| 14 October 2007  | 14 October 2007                          | No  | No records disclosed but Harrison affidavit records “monitored outside bedroom” <sup>80</sup> |
| 15 October 2007  | 15 October 2007<br>(by Margaret Hassall) | No  | No records disclosed  |
| 17 October 2007  | 17 October 2007                          | No  | No records disclosed  |
| 17 December 2007 | No                                       | N/A | No records disclosed  |
| 7 January 2008   | No                                       | No  | No monitoring   |
| 6 February 2008  | 7 February 2008                          | No  | No monitoring   |
| 2 May 2008       | 2 May 2008                               | No  | No monitoring   |
| 7 May 2008       | 7 May 2008                               | No  | No monitoring   |
| 20 May 2008      | No                                       | N/A | No monitoring   |
| 22 August 2008   | 22 August 2008                           | No  | No monitoring   |
| 22 October 2008  | 23 October 2008                          | Yes | No monitoring   |
| 22 November 2008 | No                                       | N/A | No monitoring   |
| 14 December 2008 | 14 December 2008                         | No  | No monitoring   |
| 5 March 2009     | No                                       | N/A | No monitoring   |

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<sup>80</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [128].

|                      |                |     |  |
|----------------------|----------------|-----|--|
| 1-2 April 2009       | No             | N/A | No monitoring  |
| 16 April 2009        | 16 April 2009  | No  | No monitoring  |
| 20 April 2009        | 20 April 2009  | No  | No monitoring  |
| 30 April 2009        | 30 April 2009  | No  | No monitoring  |
| 13-14 May 2009       | 14 May 2009    | No  | Yes, exceedance of 8dBA on 13 May 2009 <sup>81</sup>                     |
| 4 June 2009          | No             | N/A | No monitoring  |
| 6 June 2009          | 6 June 2009    | No  | No monitoring  |
| 16 June 2009         | 16 June 2009   | No  | No monitoring  |
| 23 June 2009         | No             | N/A | No monitoring  |
| 26 June 2009         | No             | N/A | No monitoring  |
| 24 July 2009         | No             | N/A | No monitoring  |
| 25 July 2009         | No             | N/A | No monitoring  |
| 26 July 2009         | No             | N/A | No monitoring  |
| 13 August 2009       | 13 August 2009 | Yes | No monitoring  |
| 21 August 2009       | No             | N/A | Yes, compliance “could not be determined.” <sup>82</sup>                 |
| 17 September 2009    | No             | N/A | Yes, Mr Moore states compliance “could not be determined.” <sup>83</sup> |
| 23-24 September 2009 | No             | N/A | No monitoring  |
| 1 October 2009       | No             | N/A | No monitoring  |

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<sup>81</sup> O’Dwyer Second Affidavit (Exhibit 17, NAC.0021) p 121.

<sup>82</sup> O’Dwyer Second Affidavit (Exhibit 17, NAC.0021) p 131.

<sup>83</sup> O’Dwyer Second Affidavit (Exhibit 17, NAC.0021) p 139.

79. In summary, only six of Ms Harrison’s personal records of complaints to the Applicant, out of 39, have corresponding entries in the Applicant’s complaints register. 75% of Ms Harrison’s complaints fell on deaf ears.
80. Ms Harrison was certainly not the only complainant to the mine but, thanks to her diligence, is an ideal witness to the Applicant’s porous record keeping, a practice which is unlikely to have stopped with her.
81. The Statutory Party’s “Ecotrack” register<sup>84</sup> (i.e. the register used to record complaints prior to the “compliance hub” system recently introduced)<sup>85</sup> did not, in fact, capture all, or even the majority of complaints. This register can be contrasted with the list of complaints which was compiled by an employee of the Department on 7 December 2015 and provided to Dr Plant in the first hearing (**Exhibit 1226**).<sup>86</sup>
82. Exhibit 1226 contains not only the “Ecotrack” complaints (which are identifiable by their “CR” number), but also other complaints compiled from hard-copy files, including those with reference numbers that start with TWB and SWR.
83. OCAA’s chronology in ‘Appendix 1 – Chronology of Noise Complaints’ of these submissions identifies the complaints by “CR” or other number, where available. It can be seen from that document, also, just how many complaints were not recorded in the Ecotrak database.
84. The omission is significant for a number of reasons, including because a number of those complaints led to compliance action which was simply not captured in the Department’s assessment of the Applicant’s past compliance history.<sup>87</sup> For example:
- a) The complaint with the reference TWB741(vo1.21) was associated with the Department identifying an exceedance in the Moore reports and

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<sup>84</sup> Exhibit 39, OCA.0250

<sup>85</sup> Exhibit 39, OCA.0179

<sup>86</sup> Exhibit 39, TMP.0021 (Exhibit 1226 Original Hearing).

<sup>87</sup> Exhibit 12, EHP.0012 pp 6, 136.

reminding the Applicant that it “must comply with the conditions of their EA”.<sup>88</sup>

- b) The complaints referred to with the reference SWR 090536 resulted in DEHP undertaking monitoring on two separate occasions and on both occasions requiring the Applicant to take steps to abate the nuisance.<sup>89</sup>
85. Ms Harrison’s experience with the mine ended in mid-2010 when she reluctantly left her home at Bremar. The Applicant, through Mr O’Dwyer in the Affidavit of David Patrick O’Dwyer affirmed 7 September 2021<sup>90</sup> (**O’Dwyer Second Affidavit**), has stated in reply to Ms Harrison’s evidence that the mine’s practices “vastly improved”<sup>91</sup> after this time. Yet Mr Beutel’s evidence after Ms Harrison’s departure tells a different story.
86. Mr Beutel’s personal records tell of his 65 phone calls to DEHP’s Pollution Hotline about noise over the course of 16 months in 2012-2013.<sup>92</sup>
87. To the best of his recollection Mr Beutel had not complained before that point because he “didn’t know much about the complaints process.” It took some guidance from a friend and his stumbling across a pamphlet at the local government office before he knew who to call.<sup>93</sup>
88. There is no evidence that any clear complaints procedure (either to the Applicant or to the Statutory Party) was provided or explained to residents in the earlier stages of mining operations.
89. From 2013, Mr Beutel kept a specific diary to record his lived experience as a neighbour to the mine, containing significant records of his complaints to DEHP and DES respectively.<sup>94</sup>

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<sup>88</sup> Exhibit 39, TMP.0390.

<sup>89</sup> Exhibit 39, TMP.0072; Exhibit 39, TMP.0089; TMP.0483 p 10

<sup>90</sup> Exhibit 17, NAC.0021.

<sup>91</sup> O’Dwyer Second Affidavit (Exhibit 17, NAC.0021) [21].

<sup>92</sup> Beutel Affidavit (Exhibit 1, F.0075) GB-5, [35].

<sup>93</sup> Beutel Affidavit (Exhibit 1, F.0075) [31]-[32].

<sup>94</sup> Beutel Affidavit (Exhibit 1, F.0075) GB-6, [38].

90. Aside from records of complaints kept by the witnesses, Applicant, and Statutory Party, there is also a volume of unchallenged evidence demonstrating noise impacts felt by the community, where no official complaint was made.
91. Sometimes, as Ms Harrison recollects, complaints weren't made because "it was far too cold to get up and ring" when the noise was bad overnight,<sup>95</sup> sometimes she just noted down "did not ring" with no explanation.<sup>96</sup>
92. Her diary makes clear that numerous calls she made to the Applicant were simply never returned.<sup>97</sup>
93. Once she wrote, "I did not ring. I get nowhere when we do ring. I tried not to be outside much."<sup>98</sup>
94. This particular entry, made on 15 May 2009, tells of Ms Harrison's feeling of hopelessness that her concerns were not being heard, a feeling which is starkly validated by the analysis of the Applicant's complaints records at Table 1.
95. One month after she made this entry, in around June 2009, Ms Harrison's records of noise impacts continue but her phone calls to the mine about noise trail off (see Table 1).
96. Mr Beutel also gave evidence of a feeling of frustration and "disappointment"<sup>99</sup> with the process for complaints. Most of Mr Beutel's complaints were made via the Statutory Party. His experience with the Applicant had been one of "intimidation" and he felt there was "no point" engaging with them personally.<sup>100</sup> This was unchallenged by the Applicant.
97. Mr Beutel has said that his distress is not only a direct result of the noise but also "the fact that the issue remains unaddressed."<sup>101</sup>

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<sup>95</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [72].

<sup>96</sup> Harrison Affidavit (Exhibit 3, OCA.0215) e.g. [256].

<sup>97</sup> Harrison Affidavit (Exhibit 3, OCA.0215) e.g. [51], [55], [82].

<sup>98</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [255].

<sup>99</sup> Beutel Affidavit (Exhibit 1, F.0075) [40].

<sup>100</sup> T2-11, lines 42–44.

<sup>101</sup> Beutel Affidavit (Exhibit 1, F.0075) [42].

98. Neighbours of the Applicant eventually stopped complaining (either to the Applicant, or to the Statutory Party), as all their previous efforts to communicate concerns and raise complaints had come to naught. The Applicant had not improved or lessened impacts, nor had the complaints catalyzed action on the part of the Applicant. Unbeknownst to the complainants, many of them were not even documented.
99. OCAA has prepared a Chronology setting out noise complaints made directly to the Applicant and the Statutory Party and noise impacts documented in personal records, in efforts to synthesise the manifold evidence. That Chronology is at Appendix 1 – Chronology of Noise Complaints.
100. It shows clearly that noise impacts have been serious, consistent, and largely unacted upon.

*The Applicant's response to complaints was inappropriate*

101. In direct reply to Ms Harrison's evidence, Mr O'Dwyer for the Applicant exhibited a bundle of monitoring data that had been sent by the Applicant to Ms Harrison and her family over the course of her life while neighbouring the mine. Presumably, the Applicant did so to communicate that, contrary to Ms Harrison's view, the Applicant had responded diligently to Ms Harrison's concerns that had been raised with it via monitoring which showed limited exceedances.<sup>102</sup> In reality, the monitoring undertaken at Ms Harrison's residence was completely disconnected from her experience.
102. Ms Harrison recalls, unchallenged by the Applicant, that on 14 September 2007, it undertook monitoring on Ms Harrison's property. The attending mine employee told Ms Harrison they got a reading of 76dBA, but later, the Applicant informed her that the reading was incorrect as the employee was not trained properly to take it.<sup>103</sup>
103. On or around 27 September 2007, the Applicant gave Ms Harrison the phone number of an acoustic consultant, Mr David Moore, and informed her to contact

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<sup>102</sup> O'Dwyer Second Affidavit (Exhibit 17, NAC.0021) DPO-22, pp 327 – 771.

<sup>103</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [100].

- Mr Moore, who was to undertake monitoring, with any future noise concerns.<sup>104</sup> Expert views on the quality of his methods is discussed at paragraph 164 of these submissions.
104. At times, Ms Harrison had difficulty reaching Mr Moore. She would get his message bank,<sup>105</sup> or receive feedback that he would be unable to attend the property for monitoring at times of concern.<sup>106</sup>
105. When Mr Moore did conduct monitoring, she recalls “the mine was quieter than usual”<sup>107</sup> and that “the wind was from the East...meaning the mine noise was being pushed away from our property.”<sup>108</sup>
106. Ms Harrison had a similar experience where dust monitoring was concerned, discussed at paragraph 357 of these submissions.
107. The Applicant now also accepts that there is a disconnect between when complaints were made and when the relevant monitoring was done.<sup>109</sup>
108. The extent of it is demonstrated by a comparison of the Applicant’s records of noise monitoring with Ms Harrison’s detailed records of her complaints.
109. For example, while Ms Harrison documented loud mine noise on 7 January 2008,<sup>110</sup> 6 February 2008,<sup>111</sup> 2 May 2008<sup>112</sup> and 20 May 2008,<sup>113</sup> the Applicant undertook its monitoring on 9 January 2008, 10 February 2008, 11 March 2008, 9 April 2008 and 1 May 2008.<sup>114</sup>

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<sup>104</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [115].

<sup>105</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [116].

<sup>106</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [121]-[122].

<sup>107</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [124].

<sup>108</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [230].

<sup>109</sup> T4-17, lines 25–29.

<sup>110</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [143].

<sup>111</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [150].

<sup>112</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [157].

<sup>113</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [160].

<sup>114</sup> O’Dwyer Second Affidavit (Exhibit 17, NAC.0021) p 35.

110. Ms Harrison experienced loud mine noise on 22 August 2008<sup>115</sup> and 22 October 2008,<sup>116</sup> but the Applicant's monitoring nearest to this time took place on 26 August 2008,<sup>117</sup> 17-18 September 2008<sup>118</sup> and 28 October 2008,<sup>119</sup> when she made no complaints or comments about noise in her diaries.
111. Mine noise was loud during the night of 14 December 2008,<sup>120</sup> but monitoring happened on 8 December 2008, when Ms Harrison made no mention of mine noise in her diary entry for that date.<sup>121</sup>
112. Ms Harrison wrote about loud noise on 5 March 2009,<sup>122</sup> 2 April 2009,<sup>123</sup> 20 April 2009<sup>124</sup> and 30 April 2009.<sup>125</sup> On 20 and 30 April she phoned the mine to complain. Yet, monitoring fell on 16 March 2009 and 7 April 2009.
113. The above are only examples. In fact, there were only three occasions during Ms Harrison's documented experience with the mine where monitoring was undertaken at the same time that Ms Harrison was concerned about noise, according to the Applicant's disclosed records. On one of these occasions, an exceedance of 8dbA was recorded,<sup>126</sup> on the other two, compliance "could not be determined."<sup>127</sup>
114. Table 1 at paragraph 78 depicts this disconnect.
115. Clearly, whatever monitoring the Applicant did do or cause to be done by Mr Moore, it was not representative of mine noise at the times that locals were

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<sup>115</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [179].

<sup>116</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [192].

<sup>117</sup> O'Dwyer Second Affidavit (Exhibit 17, NAC.0021) p 52.

<sup>118</sup> O'Dwyer Second Affidavit (Exhibit 17, NAC.0021) p 56.

<sup>119</sup> O'Dwyer Second Affidavit (Exhibit 17, NAC.0021) p 62.

<sup>120</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [210].

<sup>121</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [209].

<sup>122</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [223].

<sup>123</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [229].

<sup>124</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [235].

<sup>125</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [238].

<sup>126</sup> O'Dwyer Second Affidavit (Exhibit 17, NAC.0021) p 121.

<sup>127</sup> O'Dwyer Second Affidavit (Exhibit 17, NAC.0021) pp 131, 139.

concerned about it. The monitoring could not have informed the Applicant if the mine was causing a problem when people were saying it was. Mr O'Dwyer accepted as much in cross-examination.<sup>128</sup> Further, while the noise experts considered that the Applicant was entitled to rely upon Mr Moore's advice at least until February 2016 when the joint expert report prepared by Mr Shane Elkin for the Applicant and Mr Darren Tardio for OCAA, dated 13 October 2021<sup>129</sup> (**JER Noise**) was produced and criticized that work, the Applicant has no excuse for not taking action when Mr Moore actually reported exceedances or said that he could not determine whether or not there were exceedances.

116. Rather than taking a conservative approach, the Applicant took Mr Moore's "could not be determined results" as if they demonstrated compliance. This is illustrated by the following documents:

- a) on 17 Sept 2009, Ms Harrison records the mine is loud;<sup>130</sup>
- b) the letter to Ms Harrison which records the monitoring results of that day states:<sup>131</sup>

The result for the noise monitoring conducted during the months of September 2009 and October 2009 are presented in the below table. The September 2009 results comply with our EA level of 40dB (LA, 1 hour) during the hours of 22:00pm – 07:00am.

[emphasis added]

- c) the table itself, however, states, in relation to 17 September 2009 (the only monitoring day in September) that compliance "could not be determined".<sup>132</sup>

117. The noise complaints chronology appended to this submission<sup>133</sup> records many instances where Mr Moore said either there was an exceedance or that

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<sup>128</sup> T4-20, lines 14–30.

<sup>129</sup> Exhibit 19, NAC.0036.

<sup>130</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [327]

<sup>131</sup> O'Dwyer Second Affidavit (Exhibit 17, NAC.0021) DPO-14, p 139.

<sup>132</sup> O'Dwyer Second Affidavit (Exhibit 17, NAC.0021) DPO-14, p 139.

<sup>133</sup> Appendix 1, "Chronology of Noise Complaints".

compliance “could not be determined.” The number of such instances is significant especially in the context that the Applicant has not provided, nor placed before the Court, all of the David Moore reports.

118. Mr O’Dwyer’s evidence in chief presented the monitoring data provided to Ms Harrison and her family as a rebuttal to Ms Harrison’s experience.<sup>134</sup> For the reasons set out above, it simply cannot be.

*The Applicant is unremorseful*

119. The Applicant has not shown regard to the lived experience of its neighbours such that the Court cannot be confident it will do better in future.

120. Mr Beutel remembers mid-2018 when the Applicant was mining Bottle Tree Hill.<sup>135</sup>

I recall the deafening noises like trees breaking, and banging noises like rocks being dumped in trucks. At around the time of June/July 2018, surface clearing of topsoil was being carried out a couple of hundred meters away from me..I described the noise in my diaries as the “screaming of 10, 000 dying people.”

121. During this time, Mr Beutel took several videos from his back steps and a few hundred metres away from his house to document the experience. The videos speak loudly to what Mr Beutel was experiencing.<sup>136</sup>

122. Mr Beutel’s reality was later validated by the SLR Winter Survey 2018 which recorded 34 exceedances over 21 days recorded over June, July and August 2018.<sup>137</sup>

123. To this date, Mr O’Dwyer, the Applicant’s General Manager, would not accept that 34 exceedances over this time would constitute a “regular” disturbance.<sup>138</sup>

MS FORSYTH: And do you accept on behalf of the applicant or personally – and please identify which when you answer the question – that Mr Beutel has been exposed to noise from the mine – noise levels from the mine that were regularly above the noise limits that were – that

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<sup>134</sup> O’Dwyer Second Affidavit (Exhibit 17, NAC.0021) [16].

<sup>135</sup> Beutel Affidavit (Exhibit 1, F.0075) [47]-[49].

<sup>136</sup> Beutel Affidavit (Exhibit 1, F.0075) GB-9-GB-15.

<sup>137</sup> SLR Winter Report 2018 (Exhibit 39, OCA.0149).

<sup>138</sup> T4-31, lines 34–47.

are set out in the current EA at least right through 2016 to October 2018?

MR O'DWYER: I would say that Mr Beutel would have been exposed to noise from the mine, yes, but regularly – I would not say regularly.

MS FORSYTH: You would not say – were there 34 exceedances over the three months of monitoring that SLR undertook during the winter survey?

MR O'DWYER: I believe there was, yes.

MS FORSYTH: Do you consider 34 exceedances to be regular?

MR O'DWYER: As I said, I wouldn't say regular. That – that's my opinion.

MS FORSYTH: You don't consider 34 exceedances over three months to be a regular exceedance?

MR O'DWYER: No.

124. This is not the attitude one would expect from a leader at a company determined to improve its relationship with its neighbours and avoid noise exceedances in future. Rather, it is consistent with a history of the Applicant shirking their neighbours by failing to properly document their complaints, not returning their calls, and shunning them with monitoring data irrelevant to their experiences.

### **The Applicant took advantage of EA uncertainty**

*The Applicant's unduly narrow approach that environmental nuisance is conditional*

125. The Applicant has interpreted its EA wrongly and to its advantage. A prime example is the Applicant's advancing of a position that an environmental nuisance can only arise under its EA if a complaint is made contemporaneously and monitoring undertaken in response to the complaint shows an exceedance.

126. The Applicant has set out its interpretation as follows:

Conditions D2 to D4 of the EA set out a clear process for noise complaints to be investigated and responded to:

Firstly, a genuine complaint of environmental nuisance must be made to the Department.

Secondly, in the event of a genuine complaint, the Department may request that NAC undertake monitoring in response to the complaint. The monitoring must be undertaken consistent with the standards and requirements set out in conditions D3 and D5 and the note to Schedule D Table 1.

Thirdly, if the monitoring requested to be undertaken by the Department shows that the specified noise levels are not exceeded, then it is deemed under condition D3 that there is no environmental nuisance in breach of condition D1.

Fourthly, if monitoring shows that the relevant noise levels are exceeded, then NAC must:

- Address the complaint (including the use of appropriate dispute resolution if required); and
- Immediately implement noise abatement measures so that further environmental nuisance is not caused;<sup>139</sup>

and;

the EA is clear that, whilst condition D3 deems that condition D1 is not breached if monitoring [(in footnote) monitoring required pursuant to condition D2] indicates that the criteria have not been exceeded, there is no converse condition of D3. In other words, it is not automatically a breach of condition D1 where the criteria **have** been exceeded. Further evidence (relevant to the time in question) is required before any such conclusion can be made.<sup>140</sup>

127. The plain text of Condition D1 is at odds with this interpretation of the EA:

Notwithstanding any other condition of this environmental authority, noise from the activity must not cause an environmental nuisance, at any sensitive place.

[emphasis added]

128. OCAA says that the words mean what they say, that there is no precursor action necessary or condition precedent which needs to be met for an environmental nuisance to arise.<sup>141</sup> (President Kingham's decision in *New Acland Coal Pty Ltd v Oakey Coal Action Alliance Inc* [2021] QLC 29 is footnoted to support this proposition. For submissions on whether the Court should read President Kingham's decision, please see Appendix 6 - OCAA Submission on NAC v OCAA [2021] QLC 29).

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<sup>139</sup> Email from New Acland Coal to the Department of Environment and Science attaching a letter from New Acland Coal to Department of Environment and Science dated 30 April 2018 and Review of Noise Data – New Acland (Stage 2) Coal Mine prepared by SLR dated April 2018 (Exhibit 39, OCA.0059) pp 3–4.

<sup>140</sup> Letter from CU to DES dated 26 July 2019 (Exhibit 39, OCA.0166) p 3.

<sup>141</sup> *New Acland Coal Pty Ltd v Oakey Coal Action Alliance Inc*. [2021] QLC 29.

129. Nonetheless, at least some senior officers of the Statutory Party have shared the same interpretation as the Applicant.<sup>142</sup>
130. Also at odds with the Applicant's interpretation of the EA is the practical efficacy of the EA as a regulatory tool.
131. Table 1 at paragraph 78 is exemplary of the rare alignment of locals' concerns and the Applicant's monitoring. Other practical deficiencies in noise monitoring, bearing in mind the Applicant's interpretation of the EA, were accepted by Mr O'Dwyer in the 2021 rehearing. They include:
- a) the practice of monitoring for only one hour per month;<sup>143</sup>
  - b) this period being too short to capture an accurate picture of the range of noise, the nature of the noise being variable, minute to minute, hour to hour, day to day, month to month;<sup>144</sup>
  - c) the conditions D2-D4 being reactive rather than proactive, meaning that the results would not inform the authority about whether or not there was an actual noise exceedance at the time the complaint was made;<sup>145</sup>
  - d) the fact that, at least once, compliance monitoring occurred when the workers on duty had been informed and where it was accepted that it would not be difficult to adjust operations at that time.<sup>146</sup>
132. Without accepting the effects of Condition D1, notwithstanding the process set out in Conditions D2-D4, the EA is near-unenforceable.
133. Thus, the Applicant managed to largely evade enforcement.

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<sup>143</sup> Email from New Acland Coal to the Department of Environment and Science attaching a letter from New Acland Coal to Department of Environment and Science dated 30 April 2018 and Review of Noise Data – New Acland (Stage 2) Coal Mine prepared by SLR dated April 2018 (Exhibit 39, OCA.0059) pp 3-4 (esp. para under [4] and under footnote); Transcripts Original Hearing Days 1-96 (OCA.0251) T81-55 to T81-56; O'Dwyer Second Affidavit (Exhibit 17, NAC.0021) pp 2-4, esp. [10]-[12].

<sup>143</sup> T4-20, lines 4–5.

<sup>144</sup> T4-20, lines 11–12.

<sup>145</sup> T4-20, lines 14–18.

<sup>146</sup> T4-38, lines 23-37.

134. Correspondence between the Applicant and the Statutory Party tells the story of the Applicant using ambiguity in its EA to resist compliance action on noise at every turn. For example:
- a) The Applicant has discounted its noise exceedances where no complaint was received in the corresponding period.<sup>147</sup>
  - b) The Applicant has challenged the Statutory Party's investigation into noise nuisance by arguing the Statutory Party's monitoring that showed four exceedances did not contain all elements required to determine compliance under condition D3 of their EA.<sup>148</sup>
  - c) The Applicant has discounted its noise exceedances where they came from a monitoring location "not considered to represent a sensitive receptor."<sup>149</sup>
  - d) Complaints, like those of Glenn Beutel and Aileen Harrison, were "closed out" with no action taken, based upon monitoring results collected at a time when there was no complaint.<sup>150</sup>

*The Applicant advocated that exception reporting requirements are unduly limited*

135. The Applicant has interpreted the requirement for "exception" reporting in its EA conditions H6 and H7<sup>151</sup> to apply only to exceedances recorded in monitoring requested by the Department, not its own monitoring.

136. Condition H6 reads:

The holder of this environmental authority must notify the administering authority in writing of any monitoring result that indicates an exceedance of or non-compliance with any environmental authority limit within twenty-eight (28) days of completion of analysis.<sup>152</sup> (our emphasis)

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<sup>147</sup> Letter from NAC to DEHP dated 9 August 2007 (Exhibit 39, TMP.0358,) p 3.

<sup>148</sup> Letter NAC to DEHP dated 29 April 2013 (Exhibit 39, TMP.0472) p 2.

<sup>149</sup> Letter NAC to DEHP dated 24 September 2012 (Exhibit 39, TMP.0074) p 2.

<sup>150</sup> T4-43, lines 33-36.

<sup>151</sup> State 2 Environmental Authority (Exhibit 39, NAC.0120) p 30.

<sup>152</sup> State 2 Environmental Authority (Exhibit 39, NAC.0120) p 30.

137. Conversely, the interpretation the Applicant has proffered to the Statutory Party is this:<sup>153</sup>

Condition H6 (and the meaning of the term monitoring) must be construed in the context of the EA. When regard is had to the “monitoring” conditions (A4-A7), it is apparent that monitoring in condition H6 means compliance monitoring required by the EA. The SLR noise data was clearly not obtained as compliance monitoring required by the EA, but rather was collected voluntarily to assess and improve performance.

and;

if, notwithstanding this threshold legal issue, the Department were to take the view that any monitoring whatsoever could trigger these EA conditions (even if undertaken voluntarily, for internal purposes unrelated to the EA), this could set an impracticable precedent for industry. It would also act as a disincentive for anyone to carrying out [sic] additional (performance) monitoring. We cannot see how this would be a desirable environmental outcome.

138. The Statutory Party takes a different view and has insisted, in response to the Applicant’s attempt to further straitjacket the Statutory Party’s ability to enforce the EA, that the Applicant comply with the plain and ordinary meaning of condition H6.<sup>154</sup>

*The Applicant has insisted that it can mine outside of the pits delineated in the Stage 2 EIS*

139. The Applicant’s interpretation of its Current EA allows mining in any area of the Stage 2 ML, which has allowed it to mine “West Pit”. Condition A2 and Figure 1 of any approved EA for Stage 3 would need to clearly and unambiguously identify where the Applicant is authorised to mine.
140. While it took a different view prior to 2016, since 2016 - as coal in the three pits it had applied to mine in its application for Stage 2 were nearing exhaustion - the Applicant has interpreted the Current EA as not limiting it to the pits that were in the Stage 2 EIS.

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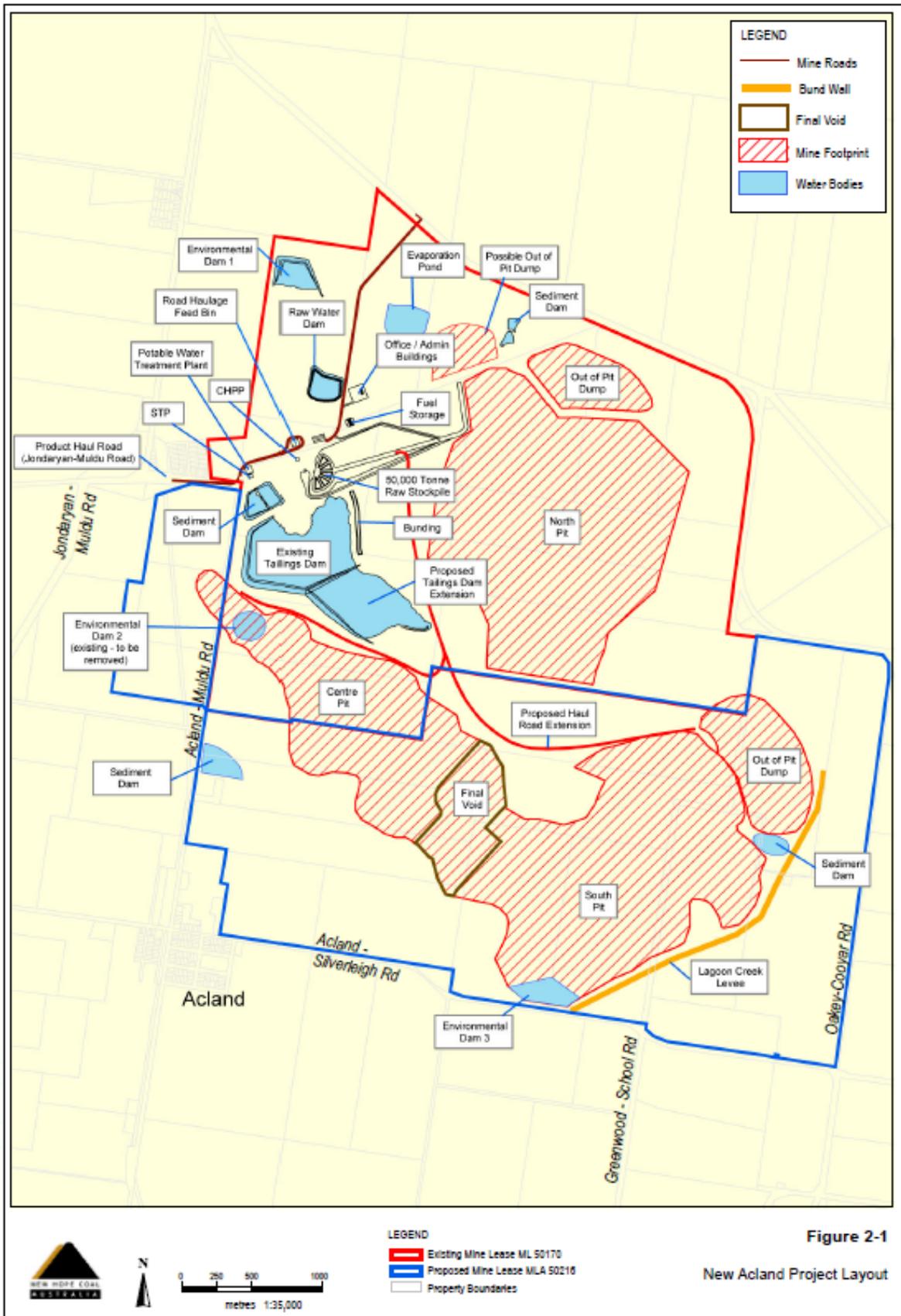
<sup>153</sup> Letter Darren Andrews to Sarah Horton dated 15 August 2019 (Exhibit 39, OCA.0168) p 1.

<sup>154</sup> Letter Sarah Horton to Darren Andrews (Exhibit 39, OCA.0173) p 1.

141. The Applicant's 2006 application for Stage 2 delineated three mine pits on the Stage 1 and 2 MLs:
- a) North Pit;
  - b) Centre Pit; and
  - c) South Pit.
142. The Stage 2 mine layout was shown in Figure 2-1 of the 2006 EIS project description.<sup>155</sup>
143. The delineation of the pits did not include the pit known as "West Pit".
144. The conditions of the Stage 2 (the Current) EA granted in 2006 did not include a condition expressly identifying the mine pits to which the extraction of coal was limited.

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<sup>155</sup> See Exhibit 39, TMP.0827 23, hard page 2-2, soft page 2.



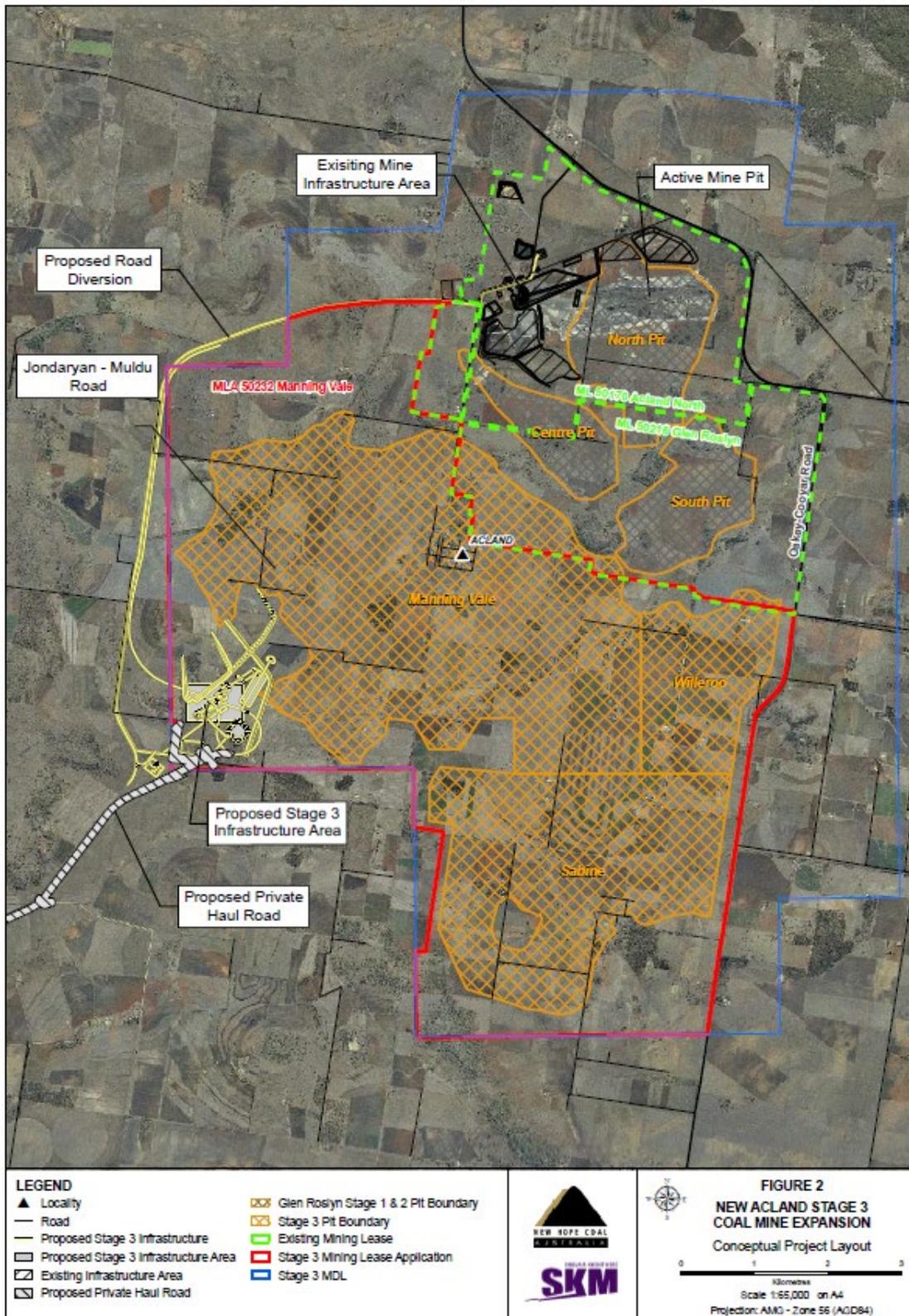
*Project Layout shown in the Stage 2 EIS, Ch 2 (Description of Project), Fig 2-1, January 2006 (extracted from Exh 39; TMP.0827).*

145. It is evident from its applications for Stage 3 that (at least until 2016) the Applicant interpreted its approvals for Stage 2 as limiting the areas in which it could mine during Stage 2 to the three pits it had applied for in 2006: North Pit, Central Pit and South Pit. This is evident from the inclusion of parts of new pits on the Stage 2 ML in the Applicant's original (2007-2012) and its revised (2012) proposal for Stage 3 (set out below). If the Applicant had in fact believed it already had approval to mine anywhere in the Stage 2 ML:
- a) there would have been no need for it to include those new mine pits on the Stage 2 ML in its applications for Stage 3; and
  - b) the inclusion of new pits in applications for Stage 3 makes no sense.
146. The original (2007-2012) Stage 3 application included the mining of a northern section of "Manning Vale Pit" in the southwest corner of the Stage 2 ML as part of three new pits (Manning Vale, Willeroo and Sabine).<sup>156</sup> In it, the Applicant proposed to mine the entire southwest corner of the Stage 2 ML as part of the Manning Vale Pit. No "West Pit" was identified in that area or at all but the section of the original Manning Vale Pit in the southwest corner of the Stage 2 ML is, in effect, what the Applicant has now mined as West Pit (as shown in Appendix 4 - the progression of West Pit).
147. After the initial Stage 3 proposal was rejected by the Queensland Government in 2012, the Applicant reduced the proposed Stage 3 mine footprint to three new pits:
- a) Manning Vale West Pit;
  - b) Manning Vale East Pit; and
  - c) Willeroo Pit.

The proposed Manning Vale East Pit included mining part of the southwestern section of the Stage 2 ML, but a substantial area near to the town of Acland was not proposed to be mined. No "West Pit" was identified.

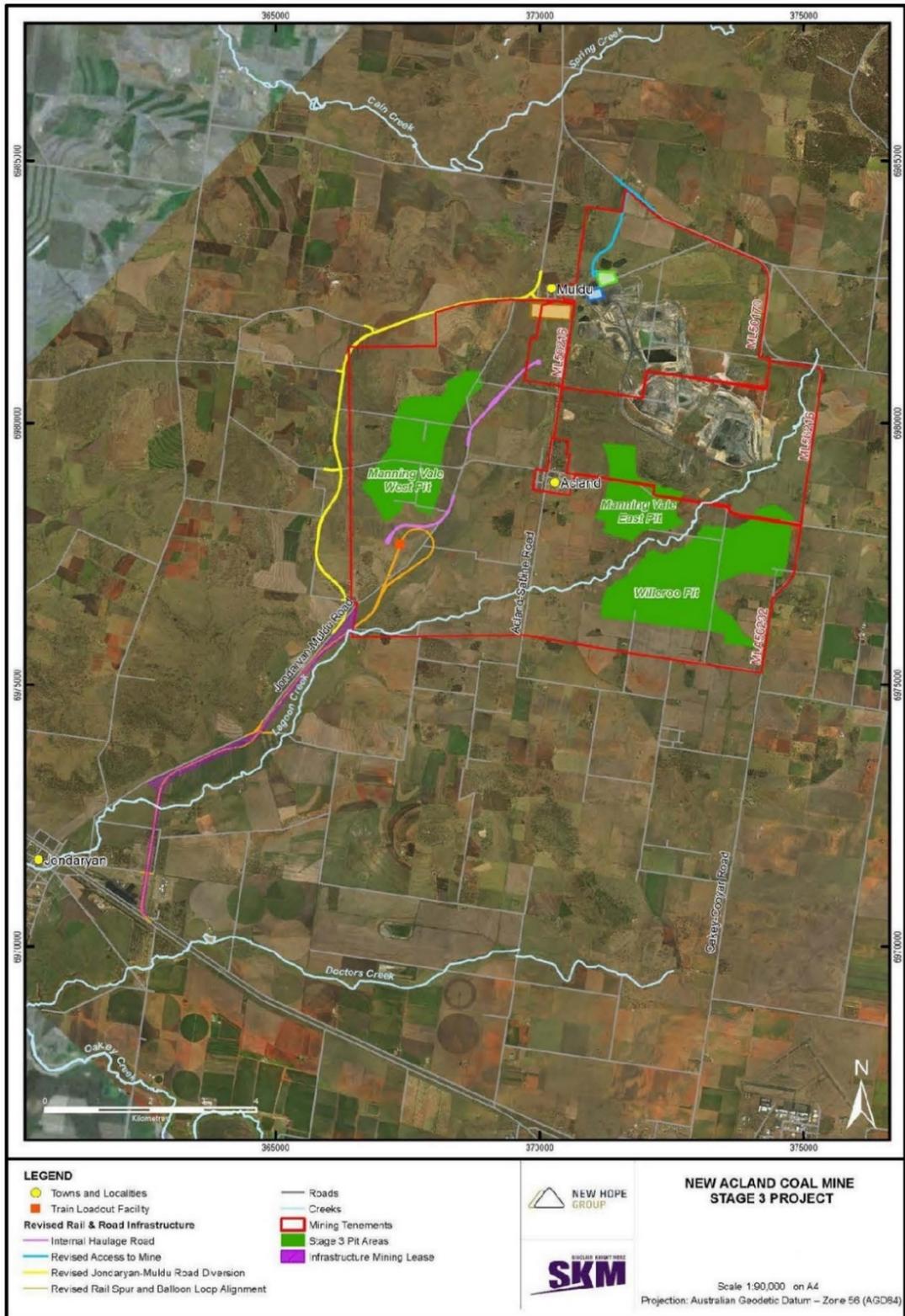
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<sup>156</sup> The original mine plan from the 2009 EIS is Exhibit 39, TMP.0905, soft page 1.



*Mine layout for initial stage 3 of the New Acland Coal Mine in the 2009 EIS for stage 3 showing existing (stage 2) and proposed pits.<sup>157</sup>*

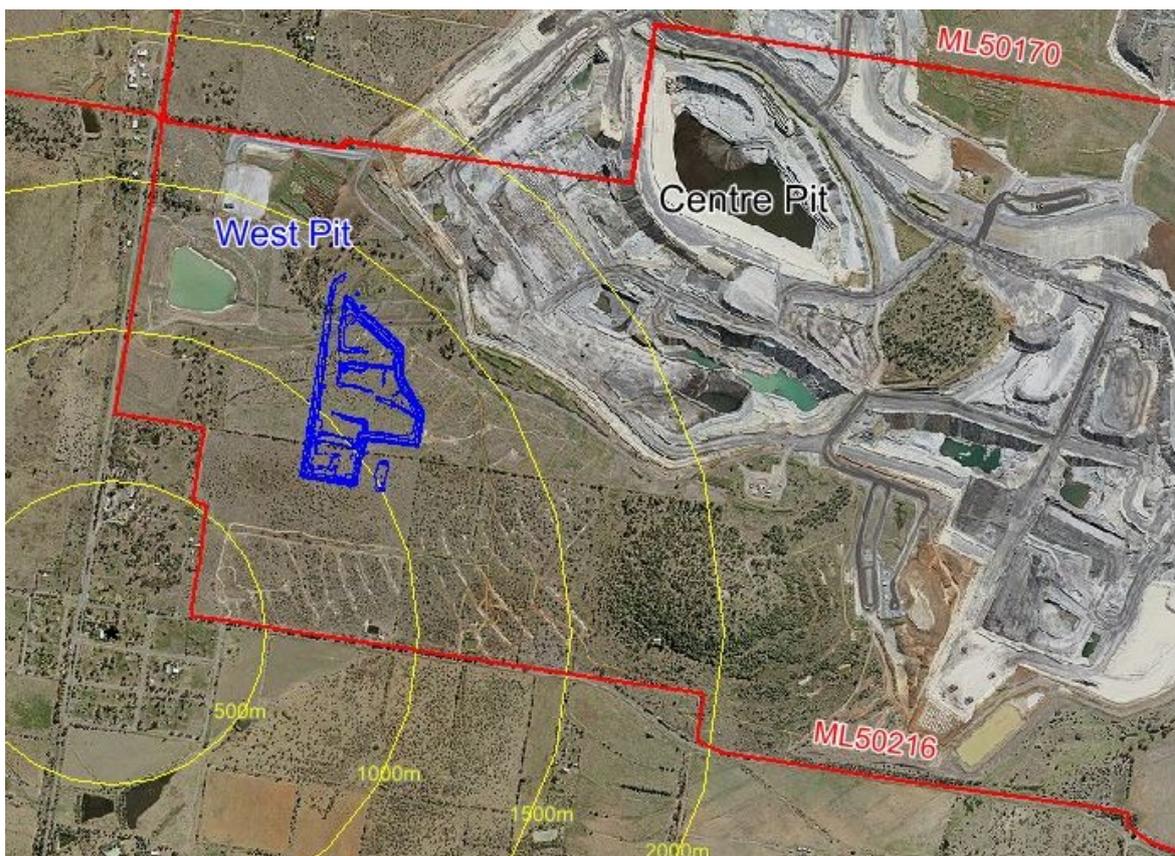
<sup>157</sup> Source: original stage 3 EIS, p 5 (soft page 35) (Exh 1217; TMP.0954).



*Revised Stage 3 Project Pit Areas*<sup>158</sup>

<sup>158</sup> Coordinator-General, *New Acland Coal Mine Stage 3 project Coordinator-General's evaluation report on the environmental impact statement* (2014), Figure 2.1, p 2 (Exh 39; EHP.0016).

148. The Coordinator-General (**CG**) assessed the revised Stage 3 project in 2014 based on the three pits applied for,<sup>159</sup> recommending it be approved and imposed as one of the stated conditions set out in Appendix 2 of the CG Report, condition A2 with reference to Figure 1 (as shown in the Statutory Party’s Draft EA and Applicant’s Draft EA).
149. In early 2016, while the first objections hearing for the applications for Stage 3 was being heard by the Court and the coal in three original pits on Stage 2 was nearly exhausted, the Applicant started mining in an area in the southwest of the Stage 2 ML it now (and for the first time) called “West Pit”.



*NAC image showing location of West Pit in southwestern corner of the existing stage 2 mining lease (ML 50216) and distances from Mr Beutel’s house in Acland as at 4 August 2016*<sup>160</sup>

<sup>159</sup> Exhibit 39, EHP.0016.

<sup>160</sup> Exhibit 39, NAC.0205 (tendered by NAC on 4/8/16).

150. Since 2016 NAC has progressively mined the new “West Pit” across the entire southwest corner of the Stage 2 ML, as shown in Appendix 4 – The Progression of West Pit.
151. While its applications for Stage 3 show the Applicant’s interpretation of where it was authorised to mine in Stage 2 was clearly different prior to 2016, since 2016 the Applicant’s position has been that, because the existing EA did not expressly delineate the areas for mining, it was authorised to mine in that area provided it complied with the stated conditions of the existing EA (e.g. for noise and dust).
152. As set out above, the Applicant’s past conduct in mining West Pit and claiming authority to do so because the EA conditions did not expressly prohibit it is directly relevant to OCAA’s case on past conduct, namely that this Applicant has, in the past, used uncertainty in conditions to its advantage (to allow it to continue mining when the coal in the three pits it sought approval for in Stage 2 was nearly exhausted).
153. While the Applicant may argue that it was open to these interpretations of its EA, its tendency to resist the Statutory Party’s attempts to ensure its compliance and respond to the concerns of the community demonstrates a lack of integrity in the way the Applicant has conducted itself. It is evidence of its preference to avoid accountability for harm to its neighbours.
154. These are issues aside from those, manifold, that have affected the integrity of the data and data collection itself, over the mine’s history. These have been set out clearly in the JER Noise prepared by experts Mr Darren Tardio and Mr Shane Elkin for the purposes of this hearing.

**The Three Stages in the JER Noise (not to be confused with the Stages 1, 2 and 3 of New Acland Coal mine)**

155. The JER Noise records that:<sup>161</sup>

71. For the purposes of trying to provide an expert opinion on this issue, it was agreed the best approach would be to split our responses into three stages over the life of the mine:

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<sup>161</sup> JER Noise 2021 (Exhibit 19, NAC.0036) [71]-[74].

72. Stage 1 – Mining from commencement of Stage 1 operations until mid-2018 when SLR undertook the 2018 Winter Compliance Noise Survey,

73. Stage 2 – Post the 2018 SLR Winter Compliance Noise Survey until (approximately) 12 March 2020 when the Environmental Noise Compass (ENC) became the primary performance noise monitor (replacing the Sentinex monitor), and

74. Stage 3 – Post (approximately) 12 March 2020 utilising the ENC (at Acland). These three stages are discussed in more detail below.

156. As to Stage 1, the JER Noise records:<sup>162</sup>

75. Both expert's opinions are simplified regarding whether noise has had an unreasonable impact on amenity. Both expert's opinions are that mine noise has had an unreasonable impact on the following basis:

76. There have been recorded exceedances of the Current EA Noise Limits during compliance assessments from both Mr Moore and SE, including magnitudes that are clearly over the noise limits;

77. Exceedances were also measured by Mr Savery, acting on behalf of OCAA, at both the Beutel and Mason properties in May 2018, with non-compliance recorded for significant periods of time (annexed to Document 286);

78. Non-compliances were identified for a significant amount of time during the SLR 2018 Winter compliance noise survey, which is also identified in Document 93 by Air Noise Environment acting as a peer reviewer for the DES;

79. DES has determined unreasonable impacts have occurred; and

80. There are a substantial number of noise-related complaints. Further it is noted that even if complaints do not always perfectly align with measured noise exceedances, this is normally a consequence of ongoing excessive noise, where complaints will not always be continuous when there is an expectation that noise is being managed or due to an inherent lag between complaint and investigation.

157. This finding is very significant. Stage 1 of the mine (as identified in the JER Noise) went for 16 years.

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<sup>162</sup> JER Noise 2021 (Exhibit 19, NAC.0036) [75]-[80].

158. These submissions break down those stages into further categories. References to stages 1A – 1C, Stage 2 and Stage 3 in the headings are reflective of the stages set out in the JER.

### **Stage 1A: Pre-TARP (2002-2014)**

#### *Factual background*

159. From 2002 to 2014 the Applicant was managing their noise impacts primarily using monthly hourly monitoring performed by an acoustic consultant, Mr Moore, which the current noise experts accept was flawed.<sup>163</sup>

160. Monitoring was also undertaken on occasions by the Statutory Party in response to complaints about noise.

161. No real-time monitoring system was used.

162. Meanwhile, Ms Harrison and Mr Beutel were documenting their experiences with mine noise during this period including their substantial complaints, set out at paragraphs 79 and 86, for example. Many other unidentified complainants were also recorded in complaints registers of the Applicant and the Statutory Party.<sup>164</sup>

#### *The Applicant admits that its historical compliance prior to the installation of the TARP was unsatisfactory*

163. In the 2016 hearing, both noise experts, Mr Elkin and Mr Savery, agreed and jointly stated that:<sup>165</sup>

The historical performance of NAC in responding to and investigating noise complaints prior to the TARP (and installation of the “real time” Sentinex monitor) was not satisfactory.

164. They also agreed that Mr Moore’s monitoring technique was flawed.<sup>166</sup>

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<sup>163</sup> JER Noise (Exhibit 19, NAC.0036) p 10, [82]; T5-68, lines 12-20.

<sup>164</sup> Appendix 1 “Chronology of Noise Complaints”.

<sup>165</sup> JER Noise 2016 (Exhibit 39, NAC.0036) [466].

<sup>166</sup> Joint Expert Report – Noise and Vibration (Elkin, Savery) dated 22 February 2016 (Exhibit 39, NAC.0034) [413].

165. This finding is not contested by the Applicant and is consistent with Mr O’Dwyer’s evidence in the 2021 rehearing.<sup>167</sup>
166. There is a series of monitoring reports that were done prior to the introduction of the TARP in January 2014 that show exceedances, including:
- a) Multiple reports by Mr Moore that record times that there were exceedances, as well as those when he says compliance “could not be determined” (as a result of his flawed methodology). This is shown in the Chronology of Key Dates at Appendix 2, compiled from the selection of Moore reports that have been disclosed to OCAA being:
    - i) the summaries of Mr Moore’s work in Mr O’Dwyer’s Second Affidavit that relate to Ms Harrison from 2007 to 2010;<sup>168</sup>
    - ii) the reports and summaries in Mr Beutel’s affidavit that relate to the period prior to Jan 2014;<sup>169</sup>
    - iii) a number of Moore reports dated from 2011 (that were produced or disclosed during the 2016 hearing) with which the noise experts were briefed.<sup>170</sup>
  - b) A DEHP monitoring report for 6-9 July 2012;<sup>171</sup>
  - c) A DEHP monitoring report for 25-26 October 2012;<sup>172</sup>
  - d) A DEHP monitoring report for 9-12 July 2013;<sup>173</sup>
  - e) An Advitech monitoring report commissioned by the Applicant from 18 and 20 December 2013.<sup>174</sup>

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<sup>167</sup> T4-21, pages 8–22, 37–45.

<sup>168</sup> O’Dwyer Second Affidavit (Exhibit 17, NAC.0021) DPO-14.

<sup>169</sup> Beutel Affidavit (Exhibit 1, F.0075) GB-31 to GB-56.

<sup>170</sup> T5-79, lines 28–38.

<sup>171</sup> DEHP Monitoring Report October 2012 (Exhibit 39, TMP.0072)

<sup>172</sup> DEHP Monitoring Report October 2012 (Exhibit 39, TMP.0083).

<sup>173</sup> DEHP Monitoring Report July 2013 (Exhibit 39, TMP.0483).

<sup>174</sup> Advitech report December 2013 (Exhibit 39, TMP.0098).

167. The experts were briefed with those reports. The Advitech report and all three of the departmental reports measured noise limits in excessive of the EA limits.<sup>175</sup>
168. Many of the David Moore reports reported exceedances including:
- a) On 24 May 2006, an exceedance at the Harrison residence;<sup>176</sup>
  - b) On 13 May 2009, an exceedance at the Harrison residence by 8dBA;<sup>177</sup>
  - c) In June 2011, an exceedance at the Mason residence;<sup>178</sup>
  - d) In October 2011 an exceedance recorded at Acland;<sup>179</sup>
  - e) In February 2012 an exceedance recorded at Acland;<sup>180</sup>
  - f) In April 2012 an exceedance recorded at Acland;<sup>181</sup>
  - g) In July 2012 an exceedance recorded at Acland;<sup>182</sup>
  - h) In August 2012, an exceedance recorded at Acland;<sup>183</sup>
  - i) In October 2013, an exceedance at Acland.<sup>184</sup>
169. Those exceedances were picked up in the one hour of monitoring that Mr Moore conducted per month. Of course, many exceedances were not captured because his monitoring underestimated the impacts. Extrapolating out, the exceedances were likely to be regular, ongoing and persistent.

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<sup>175</sup> T5-80, lines 1–5.

<sup>176</sup> O'Dwyer Second Affidavit (Exhibit 17, NAC.0021) p 20 (DPO-16).

<sup>177</sup> O'Dwyer Second Affidavit (Exhibit 17, NAC.0021) p 121 (DPO-16).

<sup>178</sup> Letter David Moore to NAC (Exhibit 39, TMP.0037) and Noise Reports from David Moore (Exhibit 39, TMP.0060 pp 1 – 10).

<sup>179</sup> Letter David Moore to NAC (Exhibit 39, TMP.0062) and Noise Reports from David Moore (Exhibit 39, TMP.0060) p 40.

<sup>180</sup> Letter David Moore to NAC (Exhibit 39, TMP.0057) and Noise Reports from David Moore (Exhibit 39, TMP.0060) p 78.

<sup>181</sup> Letter David Moore to NAC (Exhibit 39, TMP.0065) and Letter NAC to DERM (Exhibit 39, TMP.0066).

<sup>182</sup> Letter David Moore to NAC (Exhibit 39, TMP.0070).

<sup>183</sup> Letter David Moore to NAC (Exhibit 39, TMP.0073) and Letter NAC to DEHP (Exhibit 39, TMP.0074).

<sup>184</sup> Exhibit 39, TMP.0093; Exhibit 39, TMP.0094.

170. The Applicant's response to complaints was hopelessly inadequate, even in the face of requests by the Statutory Party that the Applicant take steps to abate the nuisance.<sup>185</sup> The hopelessness of the Applicant's response is illustrated quite simply by the fact that the nuisance continued, and continued, and continued. It is also discussed at paragraphs 101 to 124101 of these submissions.
171. On 14 January 2014, the Applicant wrote to the Statutory Party, acknowledging exceedances of the Current EA on 18 and 20 December 2013 and proposing mitigation measures including the Trigger Action Response Plan (**TARP**).<sup>186</sup>

### **Stage 1B: From the introduction of the TARP to the 2016 JER (2014-2016)**

#### *Factual background*

172. In January 2014, the initial TARP introduced a real-time SentineX monitoring system for performance purposes, designed to adaptively manage noise impacts contemporaneously.
173. Within the same year, the TARP incorporated a "live dashboard" component (the use of an operator listening to mining operations as they happen to monitor potential exceedances and alert fieldworkers) and the use of a directional microphone (i.e. for "area of interest" monitoring).<sup>187</sup>
174. The SentineX monitoring system employs a 630Hz "low-pass" filter to cancel out noise above 630Hz on the basis that "mining noise levels are typically <630Hz in rural environments where residences are located kilometres away from the mine."<sup>188</sup>
175. In October 2014, the Applicant replaced its omni-directional single microphone with a directional system using a "4 microphone array."<sup>189</sup>
176. The TARP system relied upon a theory commonly known as the "2dB(A) rule", that exceedances should be discounted if the difference between LAeq

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<sup>185</sup> Eg Exhibit 39, TMP.0390.

<sup>186</sup> Exhibit 39, TMP.0090; Exhibit 39, TMP.0098

<sup>187</sup> T6-12, lines 19–23.

<sup>188</sup> Elkin 2018 Memo (Exhibit 39, OCA.0059) p 11.

<sup>189</sup> Elkin 2018 Memo (Exhibit 39, OCA.0059) p 11.

measurements and LAeqLF measurements is more than 2dB(A). This is on the basis of modelling that shows that “where mining noise is the predominant mine source, the differential between LAeq and LAeqLF descriptors is less than 2dB(A).”<sup>190</sup>

*The initial TARP was a failure*

177. From January 2014, when the TARP commenced, to mid-2016, the Applicant was unable to manage mine noise within its EA limits even based upon its own continuous real-time monitoring system. In 2016<sup>191</sup> Mr Elkin reviewed the data from this monitor since its inception and summarised the nights each month that the mine noise level went above 40dBA Leq. Mr Elkin subsequently amended his Table 1. The Amended Table 1<sup>192</sup> records multiple times when the TARP, using the SentineX system, was not managing noise within the EA limits from this period:

178. On 22 April 2014, the Statutory Party wrote to a complainant who had complained about noise in July 2013, saying:

As outlined in the abovementioned letter, as a result of your complaint and results of noise monitoring undertaken by EHP in July 2013, EHP requested that NAC take action to implement noise abatement measures. One of these noise abatement measures was the implementation of a noise trigger action response plan (TARP) in February 2014.

While the TARP proved to be effective in alerting the mine operators when noise levels were above limits specified in the conditions of their environmental authority (EA), it relied on a quick response time from operators to shut down equipment to reduce the noise levels which sometimes was not always possible for operational reasons.

Consequently, NAC refined the TARP to add an additional noise abatement measure referred to as the dashboard method, which involves an operator listening to live stream audio of noise emissions from the mine and alerting the mine operators before the noise levels exceed the limits specified in the EA. During a recent trial period, NAC has found that this measure has resulted in full compliance with the night time noise levels.

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<sup>190</sup> Elkin 2018 Report (Exhibit 39, OCA.0059) p 72.

<sup>191</sup> Elkin Individual Expert Report (Exhibit 39, NAC.0060) p 30, [194].

<sup>192</sup> Exhibit 39, NAC.0106.

As a result of this, NAC will fully implement this additional noise abatement measure in May when all relevant supervisors and open cut examiners are fully trained in the use of the dashboard.

[emphasis added]

179. From the time the TARP was implemented, through to the date of the Statutory Party's letter, Mr Elkin's Table 1 recorded exceedances over many nights. It is not possible to reconcile that data with any decent 'trial period'.
180. Yet again, the Applicant seemed to have persuaded the Statutory Party that it was doing enough to avoid enforcement action being taken.
181. Yet again, the complainant was led to believe things would change, but the "live dashboard" system was not as good as it looked on paper.
182. Mr Elkin wrote a report on the TARP system dated 2 July 2014, clearly under the belief at that time that the dashboard system would be staffed overnight. Mr Elkin's 2016 witness statement says:<sup>193</sup>

NAC initially implemented a Trigger Action Response Plan (TARP) on 13 January 2014 which was then subsequently upgraded to include the current Live Dashboard system in July 2014. This system provides "live" nightly audio and measured noise levels every 10 minutes and when there is potential for noise levels above 40dBA Leq identified, mine management measures are implemented to achieve compliance with the existing EA noise limit. See SLR's "Overview of New Acland Coal Mine's Noise Live Dashboard" Report dated 2 July 2014 in Annexure E for more details.

183. The 2 July 2014 report states:<sup>194</sup>

The "live dashboard" adopts much of the TARP process with the following exceptions:

- A trained NAC operator listens to the noise throughout the night-time period (starting at 9:30pm in order to be ready for 10pm and finishing either at 7am or early if the measurement results start to be adversely impacted by extraneous noise sources),

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<sup>193</sup> NAC.0060 Elkin Statement of Evidence [191] p 29

<sup>194</sup> NAC.0060 Elkin Statement of Evidence p 78.

184. Despite the Statutory Party's letter, and despite Mr Elkin's July 2014 memo, the dashboard was not always staffed throughout the night.<sup>195</sup>
185. The efficacy of the TARP suffered another blow in October 2014 when the Applicant abruptly changed the way it recorded its data.
186. Around the same time, a reduction in exceedances in Mr Elkin's Table 1 above appears. This coincided not with better management of noise, but with the introduction of the directional microphone.<sup>196</sup>
187. In 2016<sup>197</sup> Mr Elkin conceded that the directional microphone had the effect of under-reporting noise. He reiterated that opinion in 2018,<sup>198</sup> and in the 2021 rehearing.<sup>199</sup>
188. Even then, Mr Elkin's own evidence showed that the Applicant was still not managing noise, with exceedances ongoing throughout 2015, all the way to mid-2016 when the table was produced.
189. Of course, "compliance" looked better as presented in this table by 2016, absent the context that the measurement techniques were, quite simply, just plain wrong (discussed below).
190. In the 2016 JER, Mr Elkin had put forward the view that:
- NAC have now been operating a sophisticated and successful Trigger Action Response Plan (TARP) for over 2 years now...
191. Mr Elkin later resiled from that view.<sup>200</sup>

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<sup>195</sup> See paragraph 246 of these submissions.

<sup>196</sup> 2016 Hearing Transcript Extracts (Exhibit 21, OCA.0262) T4-43.

<sup>197</sup> 2016 Hearing Transcript Extracts (Exhibit 21, OCA.0262) T41-57, line 32 to T41-58, line 30.

<sup>198</sup> Elkin 2018 Report (Exhibit 39, OCA.0059) p 12; Exhibit 39, OCAA.0093; T5-88.

<sup>199</sup> T5-16, lines 21–43. Mr Savery also raised problems with the use of the directional microphone. See Joint Expert Report – Noise and Vibration (Elkin, Savery) (Exhibit 39, NAC.0034) [370].

<sup>200</sup> 2016 Hearing Transcript Extracts (Exhibit 21, OCA.0262) T43-26 – T43-27.

### Stage 1C: When the Winter Survey was finalised (2016-October 2018)

#### *Factual background*

192. The first hearing of the Applicant's applications occurred in 2016, during which the Court and parties heard substantial evidence about the operation of the TARP system.
193. The TARP remained largely unchanged throughout Stage 1C irrespective of the evidence that had been heard during the 2016 hearing.
194. In mid-2018, in response to a request made by the Statutory Party for noise monitoring to investigate a complaint under condition D2 of the current EA,<sup>201</sup> the Applicant commissioned a noise survey at Acland called the SLR Winter Survey<sup>202</sup> (**SLR Winter Survey 2018**) which re-aired problems which had been previously articulated in the 2016 hearing and reported substantial exceedances.

#### *The Applicant did not correct errors that came out of evidence in 2016*

195. Mr Savery's evidence in the 2016 hearing spotlighted ongoing issues with the TARP:
- a) He raised the problem – which has since been acknowledged as correct – that the noise of mining includes frequencies greater than 630Hz.<sup>203</sup>
  - b) He raised concerns with the directional microphone technology.<sup>204</sup>
  - c) He raised a significant concern with the fact that the system excludes data where there is extraneous noise (ie the 2dB rule).<sup>205</sup>

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<sup>201</sup> Exhibit 39, OCA.0060; Exhibit 39, OCA.0062.

<sup>202</sup> SLR Consulting Limited's Noise Survey of Winter 2018 (Exhibit 39, NAC.0149).

<sup>203</sup> Joint Expert Report – Noise and Vibration (Elkin, Savery) dated 22 February 2016 (Exhibit 39, NAC.0034) [364].

<sup>204</sup> Joint Expert Report – Noise and Vibration (Elkin, Savery) dated 22 February 2016 (Exhibit 39, NAC.0034) [364]. [370] – [371].

<sup>205</sup> Joint Expert Report – Noise and Vibration (Elkin, Savery) dated 22 February 2016 (Exhibit 39, NAC.0034) [248].

### The 2dB rule

196. On 24 March 2016, Mr Savery produced an Individual Expert Report which stated:<sup>206</sup>

The 2dB difference between the overall LAeq and LAeq LF levels is used by the TARP operator to determine whether the noise is from the mine or from some other extraneous noise. If the difference is greater than 2dB then the mine is not considered non-compliant, even if the noise level (LAeq LF) exceeds the noise limit. This means, for example, if there is bird chorus in the morning at a time when the mine noise potentially exceeds the noise limit and is noncompliant, then the TARP operator will deem that the 2dB difference has been exceeded and using the simplistic methods of TARP will not report the mine as non-compliant. I disagree with the use of this factor in determining whether the mine is compliant. My opinion is that the mine is often non-compliant in the presence of such extraneous noise and it is not reported/or adaptive noise management is not activated because of the use of this factor.

[emphasis added]

197. Mr Savery was not alone in his concern. Mr Elkin's Individual Expert Report dated a few days earlier on 18 March 2016 attached a report that stated:<sup>207</sup>

[114] Both experts agreed that modifications to the existing TARP process will be required in order to ensure the system can monitor for compliance during both the day and evening periods, along with the very end of the night period, when other extraneous (i.e. non-mining related) noise sources render the 2dB separation (between overall and < 630Hz noise levels) rule ineffective.

[emphasis added]

198. Two months later, on 27 May 2016, Revision 5 of the TARP Work Instructions were checked internally. The draft included:

- a) that the dashboard will operate by alarms if the Open Cut Examiner (OCE) determines that the dashboard does not require attendance;<sup>208</sup>

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<sup>206</sup> Savery Individual Report 2016 (Exhibit 39, OCA.0041) p 37 [184].

<sup>207</sup> Elkin Individual Report 2016 (Exhibit 39, NAC.0060) p 18.

<sup>208</sup> Email from New Acland Coal to the Department of Environment and Science attaching a letter from New Acland Coal to Department of Environment and Science dated 30 April 2018 and Review of Noise Data – New Acland (Stage 2) Coal Mine prepared by SLR dated April 2018 (Exhibit 39, OCA.0059) p.79.

- b) to use the 2dB rule, even at dawn.<sup>209</sup>
199. On 3-4 and 6 June 2016, Mr Elkin gave oral evidence in the 2016 hearing and agreed, among other things, that the application of the 2dBA rule means that the TARP system does not work in the dawn, day or evening periods.<sup>210</sup>
200. Mr Elkin also suggests the location of the monitor should be changed, which would avoid the need to rely upon the 2dB rule.<sup>211</sup>
201. On 6 June 2016, Revision 5 of the TARP Work Instructions were signed. The Work Instructions retained the 2dB rule.
202. Contemporaneously with the evidence in the Land Court in 2016, the Statutory Party was investigating a complaint that had been made about noise in the early hours of the morning on 21 May 2016.
203. On 7 June 2016 – one day after Mr Elkin gave evidence that the 2dB(A) rule did not work at dawn – the Statutory Party wrote to the Applicant stating:<sup>212</sup>
- it is understood that between 5am and 7am on 21 May 2016, no preventative action was taken by NAC when the noise levels from the mine exceeded the night time limit stated in your environmental authority by almost 10dB(A).
- ...
- EHP invites NAC to make a submission by 5.00pm on Friday 17 June 2016 as to why you should not be subject to enforcement action.
204. On 16 June 2016 – only 10 days after Mr Elkin has given evidence that the 2dB(A) rule does not work in the dawn – the Applicant responded to the Statutory Party's letter of 7 June 2016 and continued to rely upon the 2dB(A) rule as a defense:<sup>213</sup>

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<sup>209</sup> Email from New Acland Coal to the Department of Environment and Science attaching a letter from New Acland Coal to Department of Environment and Science dated 30 April 2018 and Review of Noise Data – New Acland (Stage 2) Coal Mine prepared by SLR dated April 2018 (Exhibit 39, OCA.0059) p.81.

<sup>210</sup> 2016 Hearing Transcript Extracts (Exhibit 21, OCA.0262) T43-28 lines 4-11.

<sup>211</sup> 2016 Hearing Transcript Extracts (Exhibit 21, OCA.0262) T43-28 lines 13-16.

<sup>212</sup> Letter from Department of Environment and Heritage Protection to New Acland Coal re complaint regarding noise on 21 May 2016 dated 7 June 2016 (Exhibit 39, OCA.0032)

<sup>213</sup> Letter from New Acland Coal to Department of Environment and Science dated 16 June 2016 (Exhibit 39, OCA.0033).

.. the A0111 Hr dB(A), was greater than 40dB(A) at [the relevant time] ... In all of these instances, the influence of noise outside area of interest 1 (the direction of the mine) was likely to impact results, as there was greater than 2dB(A) separation between LAeq and LF ... In this circumstance, in the period from 5:40am to 7am there was no reason to take preventative action as the noise results were influenced by other non-mine noise sources.

[emphasis added]

205. By letter dated 7 July 2016 (emailed on 8 July 2016), the Statutory Party asked the Applicant to “justify with further and better particulars as to why this difference in 2dB should mean that results are disregarded” and requested audio files.<sup>214</sup>
206. On 29 July 2016, the Applicant responded to the Statutory Party’s letter of 7 July 2016, attaching an Advitech report dated 28 July 2016.<sup>215</sup> The letter stated:
- NAC have engaged the consultancy services of Advitech Environmental to justify with further and better particulars why the statement relating to 2dB separation from NAC's letter dated 16 June 2016 applies (refer enclosed report).
207. As per the evidence of Mr Elkin given in the 2021 rehearing, that Advitech report did not validate the use of the 2dB rule at dawn. Incredibly - despite the fact that complaint investigation afoot related to the dawn period, and Mr Elkin had just given evidence that the 2dB rule did not work specifically in the dawn period - the Advitech report only analysed the operation of the 2dB rule between 12:30 and 1:30 am.<sup>216</sup>
208. It beggars belief that the Applicant was not aware of this deception and simply relied upon Advitech’s ‘validation’ of the 2dB rule despite hearing extensive

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<sup>214</sup> Letter from Department of Environment and Heritage Protection to New Acland Coal dated 7 July 2016 (Exhibit 39, OCA.0034).

<sup>215</sup> Letter from New Acland Coal to Department of Environment and Heritage Protection regarding compliance with Environmental Authority and attaching Advitech report monitoring system Implementation by Advitech Environmental dated 29 July 2016 (Exhibit 39, OCA.0038).

<sup>216</sup> Letter from New Acland Coal to Department of Environment and Heritage Protection regarding compliance with Environmental Authority and attaching Advitech report monitoring system Implementation by Advitech Environmental dated 29 July 2016 (Exhibit 39, OCA.0038) p 14 (p 7 of Advitech report); Email from New Acland Coal to the Department of Environment and Science attaching a letter from New Acland Coal to Department of Environment and Science dated 30 April 2018 and Review of Noise Data – New Acland (Stage 2) Coal Mine prepared by SLR dated April 2018 (Exhibit 39, OCA.0059) p 72 (p 7 of Advitech report).

evidence less than eight weeks earlier that debunked the 2dB rule at dawn. The Applicant is simply not that uniformed – and if it is, then it certainly cannot be trusted to mine at this site.

209. The only reasonable conclusion open to the Court is that the Applicant deliberately tried to hoodwink the Statutory Party (and that it seems to have worked).
210. Almost two years later, on 9 February 2018, the Statutory Party commenced an investigation into complaints on 27-28 December 2017 and 2 January 2018, including complaints about noise at about 4:30am on 28 December 2017 (i.e. dawn in midsummer).<sup>217</sup>
211. This time, the Statutory Party raised a different concern – but nevertheless also an issue that had been raised by Mr Savery in 2016 – namely that the low frequency filter (the 630Hz filter) was excluding mine noise.
212. On 11 April 2018, the Statutory Party requested that the Applicant undertake an analysis of SentineX (real-time) monitoring in frequencies less than 1kHz rather than the 630kHz previously used.<sup>218</sup>

Importantly, it was this request which was the genesis of Mr Elkin’s April 2018 report (**Elkin 2018 Report**), a report that is remarkable – for all the wrong reasons.<sup>219</sup>

213. The Elkin 2018 Report states:
- a) The use of real-time noise monitoring as a performance management but not compliance management tool is supported by the Advitech Report dated 8 July 2014 (**2014 Advitech Report**)<sup>220</sup> and the Advitech Report dated 28 July 2016 (**2016 Advitech Report**);<sup>221</sup>

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<sup>217</sup> Letter from Department of Environment and Science to New Acland Coal regarding community concern (noise) dated 9 February 2018 (Exhibit 39, OCA.0052).

<sup>218</sup> Letter from Department of Environment and Science to New Acland Coal regarding noise nuisance dated 11 April 2018 (Exhibit 39, OCA.0058).

<sup>219</sup> Elkin Noise Memo April 2018 (Exhibit 39, OCA.0059) p 7.

<sup>220</sup> 2014 Advitech Report (Exhibit 39, OCA.0226).

<sup>221</sup> 2016 Advitech Report (Exhibit 39, NAC.0063).

- b) The real-time monitoring may be able to support operator-attended noise measurements but only following an “extensive period of calibration, where the real-time noise monitoring results are validated against the operator-attended results over-time.”<sup>222</sup> In evidence Mr Elkin confirmed that by “calibration” he meant “correlation.”<sup>223</sup>
- c) The Applicant acted in “accordance with the 2dBA rule”, including in the dawn period:<sup>224</sup>

The Sentinex monitoring system was reviewed in 2016 and, amongst other things, validated the use of a “2 dBA rule” whereby it was established that if the difference between the overall (all frequencies) noise level was within 2 dB of the low frequency (= 630Hz) noise level, then it was appropriate to assume that the dominant noise source was the mine and therefore that active management of noise emissions was required if levels approached or exceeded the noise levels nominated in Table 1 of the EA. This second Advitech report (dated 28 July 2016) is contained in Appendix B. Conversely, if the difference between the overall (all frequencies) noise level and the low frequency (= 630Hz) noise level is greater than 2dB, then the low frequency noise levels are considered to be sufficiently affected by non-mine noise and management intervention is not required.

214. On 30 April 2018, the Applicant wrote to the Statutory Party attaching the Elkin 2018 Report.<sup>225</sup> The letter argues that a complaint and a subsequent request for monitoring under the EA conditions D2 and D3 are to be triggered prior to, and to inform compliance with, condition D1. It notes a “concern” with the Statutory Party using the real time monitoring system to investigate compliance.

215. The letter argued that:

- a) NAC followed its Trigger Action Response Plan for the nights under investigation; and

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<sup>222</sup> Elkin Noise Memo April 2018 (Exhibit 39, OCA.0059) p 11.

<sup>223</sup> T5-64, lines 13–15.

<sup>224</sup> Elkin Noise Memo April 2018 (Exhibit 39, OCA.0059) p 11.

<sup>225</sup> Email from New Acland Coal to the Department of Environment and Science attaching a letter from New Acland Coal to Department of Environment and Science dated 30 April 2018 and Review of Noise Data – New Acland (Stage 2) Coal Mine prepared by SLR dated April 2018 (Exhibit 39, OCA.0059).

- b) that the "2dB(A) rule" "was reviewed and validated by Advitech as recently as 2016;" and
  - c) "as noted in the SLR report, the 2dB(A) rule was implemented during the periods in question".
216. Not only was the Applicant's letter to the Statutory Party wholly inconsistent with Mr Elkin's own evidence he had given in 2016, but Mr Elkin was complicit in this process.
217. Neither the Applicant's letter or the attached Elkin 2018 Report commented on the fact that the 2016 Advitech report did not validate the use of the 2dB(A) rule in the dawn period (only having looked at it over a one hour period in the middle of the night) and, critically, failed to comment on the fact that Mr Elkin still considered at the time that he wrote his report that the 2dB(A) rule does not work at dawn.
218. Notably, Mr Elkin admits that he knew he was being asked to write that memo in the context of a compliance investigation.<sup>226</sup>
219. Mr Elkin conceded in cross-examination:<sup>227</sup>

MS FORSYTH: So you put your name to a report in April 2018 that said that the applicant acted in accordance with a rule that you knew didn't work during the dawn?

MR ELKIN: I knew that rule didn't work during dawn. That's correct.

MS FORSYTH: And you knew that that report was being produced to the department as part of a compliance investigation?

MR ELKIN: Yes, I did.

MS FORSYTH: It would have been more transparent to qualify your opinions about the 2dB rule in that report by saying you did not agree that the Advitech report validated the use of that rule in the dawn, wouldn't it?

MR ELKIN: It would have been, yes.

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<sup>226</sup> T6-8, lines 5–10.

<sup>227</sup> T6-8, pages 1–16.

220. This raises a serious issue in relation to Mr Elkin’s independence. It also raises a serious issue in relation to Applicant’s representations to the Statutory Party – in circumstances where the Applicant was well aware of Mr Elkin’s views on the 2dB rule.
221. This type of behaviour bodes extremely badly for the proposal currently before the Court. The conduct of the Applicant described above is precisely the opposite of the diligent behavior that is so essential to operate the adaptive management system with any measure of success.
222. In and of itself, that should be sufficient for the Court to recommend that neither the Applicant nor its consultants can be trusted to diligently operate the real-time systems as required to manage emissions under Stage 3.

### **The 630Hz filter**

223. But there is more.
224. The Elkin 2018 Report also identified the problem with applying the low pass 630Hz filter when mining closer than 2km to sensitive receptors. It identified that mine noise did exist in the frequencies above 630Hz and that the filter typically applies only at distances greater than 2km away. The same had been raised in 2016.<sup>228</sup>
225. The Elkin 2018 Report stated:<sup>229</sup>

#### **Frequency Range Applicable to Mining Noise**

In Jeff Parnell’s paper entitled “Acoustic Signature of Open Cut Coal Mines” (from Acoustics 2015), analysis is undertaken of noise measurement results and predictions over “several kilometres” (with several references to mining noise at 4 km from a mine) however the paper draws the conclusion that:

“Use of a 630 Hz low pass filter will generally cover most enhancing meteorological conditions without loss of fidelity in the calculation of mine generated dB(A) or dB(C) levels (although additional high pass

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<sup>228</sup> JER Noise and Vibration (Elkin, Savery) (Exhibit 39, NAC.0034) p. 60 [364]; 2016 Hearing Transcript Extracts (Exhibit 21, OCA.0262) T40-59 lines 4-10.

<sup>229</sup> Email from New Acland Coal to the Department of Environment and Science attaching a letter from New Acland Coal to Department of Environment and Science dated 30 April 2018 and Review of Noise Data – New Acland (Stage 2) Coal Mine prepared by SLR dated April 2018 (Exhibit 39, OCA.0059) PDF pp 13, 14.

filter of inaudible acoustic energy may be required for dB(C) assessment) when measuring at distances greater than about 2 km.”

It is also SLR’s experience that mining noise levels are typically  $\leq 630\text{Hz}$  in rural environments where residences are located kilometres away from the mine.

The department, notwithstanding, has asked for retrospective analysis up to 1,000 Hz, possibly due to the fact that the current New Acland Stage 2 mining is closer than 2 km.

226. However, no action was taken by the Applicant to redress the problem via a proper correlation until October 2018.
227. This seven month delay from the 2018 Elkin Report (and the more than 2 year delay from OCAA first raising the lack of a proper correlation report during 2016) is significant in light of its human impact, discussed below.

#### **The Directional microphone system**

228. Mr Savery’s concerns in 2016 were documented in the 2016 Noise JER:

Directional noise monitoring systems find it difficult to provide accurate information if there are significant sources close to the monitor relative to the sources of interest that are further removed from the location. The directional monitoring station also has difficulty in handling constantly moving sources where sources are located in a depth of field, i.e. not all located at the same separation distance from the monitoring location.<sup>230</sup>

229. Mr Elkin’s own concessions are recorded at paragraph 187 of these submissions.
230. The transcript of a lengthy cross-examination of Mr Elkin by Mr Holt in 2016 was put to him in the 2021 rehearing. In this cross-examination, Mr Elkin agreed that the 2014 Advitech Report did not validate the use of the directional microphone to accurately record noise from the mine including this exchange:<sup>231</sup>

You know that the period of time over which the validation experiment occurred was two hours and 20 minutes?---Yes.

On a single night?---Yes.

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<sup>230</sup> JER Noise and Vibration (Elkin, Savery) (Exhibit 39, NAC.0034) p 61 [370].

<sup>231</sup> 2016 Hearing Transcript Extracts (Exhibit 21, OCA.0262).

On a night where the operator said that he couldn't – I'm sorry, he or she – it's not clear what the gender is – that he or she said that they couldn't even hear the mine noise?---Yes.

Hardly extensive validation as I think you agreed before?---Correct.

In fact just short of best practice by some margin?---Yes.<sup>232</sup>

231. In cross-examination by Ms Forsyth, Mr Elkin confirmed that neither of the Advitech reports relied upon in the preparation of the Elkin 2018 Report were correlation reports, a matter that he had checked during the making of the Elkin 2018 Report.<sup>233</sup>
232. Mr Elkin was ready to defend the use of the 2016 Advitech Report in “validating” the Applicant’s reliance on the 2dB rule and subsequent “compliance” with its noise limits for the purposes of the 2018 investigation by DES. However, he knew that the results in the report had not been correlated to account for under-reporting as a result of the use of the directional microphone.
233. On the same page of the report, Mr Elkin proffered the view to his audience at the Statutory Party that the real-time monitoring system is not fit for the purposes of evaluating compliance, in reliance on the 2014 Advitech Report.
234. Implied in the Elkin 2018 Report is that the real-time monitoring system is fit for the Applicant and its agents to prove that they are compliant, but not for the Statutory Party to prove that they are not.
235. In summary, Mr Elkin was aware not only of the issues with the 2dB rule and the low pass filter being applied notwithstanding the proximity of mining, but he was also aware that there was still – even in April 2018 – no proper correlation report to fix the under-reporting of noise from the directional system.
236. Mr Elkin illuminated in cross-examination that he would have raised the issues of the 2dB(A) rule, the 630Hz filter and the directional microphone, with the Applicant contemporaneously with the delivery of the Elkin 2018 Report:<sup>234</sup>

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<sup>232</sup> T41-56, lines 4-15.

<sup>233</sup> T6-8 – T6-10.

<sup>234</sup> T6-12, lines 25–46; T6–13, line 1.

MS FORSYTH: ...After you'd provided the applicant with your April 2018 report, [the Elkin 2018 Report] did the applicant engage you to advise it on how to fix the problem with the fact that the SentineX system was – the SentineX system was likely under-reporting mine noise because of its reliance on, firstly, the 630 low-pass filter, secondly, the directional monitoring, and thirdly, the 2dB rule?

MR ELKIN: From memory, no, they did not.

MS FORSYTH: Now, is it your usual practice, Mr Elkin, to tell one of your clients if you identify a material problem with their acoustic management or monitoring regimes during the course of your work?

MR ELKIN: We've had many discussions over many years in relation to the New Acland Coal Mine. Yes, Ms Forsyth. And we always try and provide advice where possible.

MS FORSYTH: And that's exactly what you would have done, as an independent acoustic consultant back in 2018, when you'd been asked to look again at this SentineX system and the problems that it was – and the fact that it was under-reporting noise? That's right, isn't it, Mr Elkin?

MR ELKIN: That's correct. I've provided that advice in the report.

237. Yet all three were still an issue when the SLR Winter Survey 2018 was published in October 2018.

*The human impact of these failures is substantial*

238. Out of the three problems with the TARP outlined above, being the 2dB(A) rule, the 630Hz filter and the use of the directional microphone, the extent of the problem for at least two is significantly exacerbated when mining is occurring at a short distance from a sensitive receptor.
239. In April 2018, at the time of the publishing of the Elkin 2018 Report, mining was in the vicinity of 400 – 700m from Mr Beutel's home.<sup>235</sup>
240. On 27 April 2018, Mr Beutel wrote in his noise diary "very loud roaring" and "moaning and groaning."<sup>236</sup> On 23 May 2018 he wrote "bad most of the day."<sup>237</sup>
241. Yet, despite the three issues being raised in the Elkin 2018 Report, the Applicant failed to act and simply mined closer and closer to Mr Beutel's home.

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<sup>235</sup> Appendix 4 – the Progression of West Pit.

<sup>236</sup> Beutel Affidavit (Exhibit 1, F.0075) [48], [66].

<sup>237</sup>Second Beutel Affidavit (Exhibit 2, OCA.0007) [8(d)].

242. By approximately June, July and August 2018, when monitoring was commissioned by the Applicant for the SLR Winter Survey 2018, mining was only a few hundred metres from Mr Beutel as West Pit progressed closer and closer to his home.<sup>238</sup>
243. On 12 June 2018, Mr Beutel wrote in his noise diary that the noise was “bad” at 6:30pm, “very bad” at 8:30pm and “extreme” at 9:08pm.<sup>239</sup>
244. On 23 July 2018, Mr Beutel called the Pollution Hotline, who recorded in their database that he told them, “Awful noise from mining activities it never stops.”<sup>240</sup>
245. The results of the SLR Winter Survey 2018 showed substantial exceedances at Mr Beutel’s home throughout the monitoring period.
246. During this time, the lack of entries from around 1am to 7am in the June, July and August 2018 TARP logs disclosed during this hearing<sup>241</sup> indicate that the Applicant did not even have operators in the control room for large parts of the night time period, which were times when the mine noise often disturbed Mr Beutel’s sleep and led him to complain. As Mr Tardio said, this shows a lack of diligence on the part of the Applicant.<sup>242</sup>
247. Such action was in reckless disregard for Mr Beutel’s amenity and blatantly put profit before any consideration of his wellbeing or the Applicant’s own compliance with the EA while it continued mining West Pit to within 300m of his house.
248. A Penalty Infringement Notice<sup>243</sup> (**PIN**) was issued in respect of nuisance caused between 21 June 2018 – 30 August 2018 for an amount of \$9,461. For a mine extracting millions of tonnes of coal each year, presently worth over \$100 per

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<sup>238</sup> Beutel Affidavit (Exhibit 1, F.0075) [48], [66].

<sup>239</sup> Second Beutel Affidavit (Exhibit 2, OCA.0007) [8(j)].

<sup>240</sup> Ecotrack Enquirer Extract (Exhibit 39 OCA.0250) p.56.

<sup>241</sup> Exhibit 39, OCA.0077 - OCA.0146.

<sup>242</sup> JER Noise (Exhibit 19, NAC.0036) [90].

<sup>243</sup> O’Dwyer First Affidavit (Exhibit 16, NAC.0010) [92(c)].

- tonne,<sup>244</sup> the amount of that fine is a drop in the ocean of the Applicant's revenue.
249. It was during this same period that Mr Beutel was standing on his back step filming the mine noise sometimes twice daily and phoning the Pollution Hotline time and time again<sup>245</sup> which may have been avoided by a correction to the real time monitoring system and a diligent system to check the correction remained valid while mining in such close proximity to Mr Beutel.
250. The Statutory Party's Decision Memo for the PIN stated that "Mr Beutel has alleged that the noise levels experienced have caused disturbance to his ability to fall and remain asleep, and his ability to undertake recreational and relaxation activities, both inside and outside of his home."<sup>246</sup> The Statutory Party deemed that the impact on Mr Beutel was a "major impact."<sup>247</sup>
251. The Court can and should conclude on the evidence that the Applicant deliberately chose not to address this issue due to the costs of the mitigating actions that would be required for the Applicant to mine so close to Mr Beutel without breaching the limits. There is simply no other reasonable explanation.
252. It does not assist the Applicant that despite the issuance of the PIN and the confirmation from the Statutory Party that the impact to Mr Beutel was "major", their General Manager in cross-examination was obstinate that the noise exceedances Mr Beutel experienced during this time were not "regular", in his opinion.<sup>248</sup>
253. In attempting to better quantify the impacts on Mr Beutel, a number of points can be made.
254. First, the limits in the Current EA are already high – which is why there is agreement that they should be reduced for Stage 3.

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<sup>244</sup> T4-50, lines 32–33.

<sup>245</sup> Beutel Affidavit (Exhibit 39, F.0075) [48] – [71].

<sup>246</sup> Decision Memo Penalty Infringement Notice (Exhibit 39, OCA.0155) p.3.

<sup>247</sup> Decision Memo Penalty Infringement Notice (Exhibit 39, OCA.0155) p.4.

<sup>248</sup> T4-31 – T4-32.

255. Second, the exceedances identified by Mr Elkin during the SLR Winter Survey 2018 were regular and often.

256. The Compliance Activity Report prepared by the Statutory Party prior to the issuance of the PIN also noted that:<sup>249</sup>

The department considers that while Mr Beutel may have lodged noise nuisance reports on all of the days that noise data identified exceedances, that this does not reflect the quantum and number of instances Mr Beutel is being impacted by noise nuisance from mining activities.

257. While SLR may have described some of the exceedances as acoustically “marginal”, this must be considered in the context of the already high limits. Further, as noted in an independent peer review of the Statutory Party’s and SLR’s noise monitoring reports:<sup>250</sup>

SLR suggest that excursions of 1-2 dB(A) above the criteria are ‘marginal.’ This view is not supported. The reasons for this are as follows:

- SLR comment that noise levels of 1-2 dB(A) are indiscernible to the human ear: this argument is related to small changes in noise level, not in terms of comparison with a criterion. The appropriate approach would be to compare the measured noise level to typical background noise, and this would result in a significantly higher differential than 2dB(A) for those periods that are significantly affected by noise from New Acland Mine.
- SLR comment that noise measurement has a +/- 2db(A) accuracy: this indicates that the exceedances could in fact be 2dB(A) higher, and does not simply indicate that the measurements should be disregarded as ‘marginal.’

258. Further, the exceedances are likely to have been ongoing for a significant period. As the JER Noise explains at [86], Mr Elkin recommended that the TARP noise limits be corrected by 4.6dBA due to the SentineX system being incorrectly correlated with compliance measurements. He also says that [given] the SentineX monitoring system had been operating for a number of years:

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<sup>249</sup> Compliance Report Pre-Evaluation Compliance (Exhibit 39, OCA.0157).

<sup>250</sup> ANE Report (Exhibit 39, OCA.0151) p 10.

this implies that a substantial number of TARP records were incorrect prior to this adjustment, and in particular that recorded levels within 4dBA of the noise limits may have actually exceeded the noise limits.

259. The existence of the PIN is not evidence of a one off, unintentional breach.

## **Stage 2 October 2018 to March 2020**

*For mid October 2018 to October 2019, the noise experts could not verify compliance*

260. SLR only undertook one series of monitoring during this period.

261. The report for the November 2018 to January 2019 monitoring period (**January 2019 report**) reports multiple exceedances, but only one that Mr Elkin describes as acoustically perceptible, namely an occurrence of 3dBA above the noise limits.<sup>251</sup>

262. The Applicant failed to report these exceedances to the Statutory Party until 26 July 2019.<sup>252</sup>

263. At this time, the Applicant was operating under Mr Elkin's advice to apply a 4.6dB correction to the TARP system<sup>253</sup> to account for mine noise above 630Hz, difference between omni-directional noise levels and the directional microphone system, and differences in height and location of monitors; a correction that should have been made years earlier based upon what both the Applicant and its consultants knew at least from the 2016 hearing.<sup>254</sup> Finally, the infamous SentineX noise logging station was replaced with an Environmental Noise Compass station in Acland to resolve the absence of correlation in the Applicant's monitoring technology for the preceding 17 years.<sup>255</sup>

264. Even with the 4.6dB(A) correction, the noise experts could not say either that there was no unreasonable impact, or that the January 2019 Report had

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<sup>251</sup> Joint Experts' Report (Noise) (Exhibit 19, NAC.0036) [98]; Noise Survey – November 2018 to January 2019' dated August 2019, prepared for New Acland Coal (Exhibit 39, OCA.0170).

<sup>252</sup> Letter from Sarah Horton of the Department of Environment and Science to Darren Andrews of New Acland Coal Pty Ltd dated 1 August 2019, regarding exception reporting – New Acland Coal Mine (Exhibit 39 OCA.0167).

<sup>253</sup> SLR Note Correction to ENC Dashboard Noise Levels (Exhibit 39, OCA.0177) p.2.

<sup>254</sup> Draft SLR Technical Note - Change in TARP dated 31 October 2018 (Exhibit 39, OCA.0150).

<sup>255</sup> SLR Note Correction to ENC Dashboard Noise Levels (Exhibit 39, OCA.0177) p.1.

demonstrated compliance. To the contrary, Mr Tardio said (and was not challenged on):

DT's opinion is that because the TARP system still did not account for tonal or impulsive character adjustments, it is still inconclusive if and how many times the TARP understated noise levels.<sup>256</sup>

265. The Applicant has not put before the Court any David Moore reports from this period. The last report from Mr Moore that Mr Beutel exhibits is dated October 2018.<sup>257</sup> It seems that the Applicant either did not do monitoring during this period (other than the SLR report in November 2018 -January 2019), or it did undertake monitoring and has not provided the reports to the experts or the Court.
266. Either way, the Court cannot have confidence that the Applicant was managing noise during this time with only the January 2019 Report before it. To the contrary, the Court ought to be concerned that the Applicant did not undertake monthly compliance monitoring to check that the 4.6dB(A) correlation factor was in fact working or, alternatively, be concerned that they are not before the Court.
267. After the evidence of the 2016 hearing, after the Elkin 2018 Report, and now even after the 2018 SLR Winter Survey, the Applicant still had not put in place comprehensive systems that could verify whether there was compliance.

*From October 2019 to date, mining operations are limited, and compliance is not demonstrative of future conduct*

268. There was only one campaign of monitoring during this period referred to in the JER: a 2020 SLR Winter Survey compilation for the monitoring period of June – August 2020 (**2020 SLR Reports**).<sup>258</sup>
269. No exceedances were recorded during this monitoring campaign.

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<sup>256</sup> JER Noise (Exhibit 19, NAC.0036) p.12 [101].

<sup>257</sup> Beutel First Affidavit (Exhibit 1, F.0075) p.14.

<sup>258</sup> SLR Consulting Limited's series of noise surveys of Winter 2020, located in O'Dwyer Second Affidavit (Exhibit 17, NAC.0021 DPO-22) pp 432-614, 659-707.

270. However, these results must be viewed in the context of the Applicant's reduced mining operations in recent years, particularly reduced nighttime operations.
271. Mr O'Dwyer stated in his affidavit filed 5 August 2021 that:<sup>259</sup>

The Applicant has undertaken the following actions, in consultation with its suitably qualified acoustic consultants, SLR, to improve and refine its management of mine noise and to reduce noise impacts and also to prepare for the commencement of the reduced noise limits as set out in the Applicant's Proposed EA:

...

(d) A number of improvements have been made to fleet operational management such as:

...

(ix) altering staff rosters to reduce activity at night (initially resulting in much reduced activity between 1 am and 6am) which was then expanded to reduce night time activities to a minimum with no planned mining activities in the pit and focusing activities on the ROM to feed the processing plant; and

272. When asked for more precise timing of the slowdown in activity, Mr O'Dwyer's oral evidence was that:<sup>260</sup>

... the start of quarter 4 2019, we had the reduced night shifts, so that's reduced activities between 1 and 6 am. And then with the large redundancies that we did at the end of 2019, we then moved away from those larger night shifts. So we had a – just the – the crew then doing the feed into the processing plant from 2019 – end of 2019.

273. In summary:

- a) there were reduced operations between 1am and 6am from about 1 October 2019;
- b) from the end of 2019, there were no nighttime activities planned in the pits, with the only nighttime activities being fed into the processing plant.

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<sup>259</sup> O'Dwyer First Affidavit (Exhibit 16, NAC.0010) p 24 [99(d)(ix)].

<sup>260</sup> T4-44, line 47 – T4-45, line 4.

274. At around the same time, there was a corresponding change in the nature of complaints – with Mr Beutel’s complaints from mid-2019 onwards relating only to the daytime and evening periods.<sup>261</sup>
275. Something more must be said about the 2020 Winter Reports 2020.<sup>262</sup>
276. Firstly, the TARP operators were aware of when the noise monitoring commenced in August. The TARP operator for the relevant night noted in their spreadsheet, “noise compliance monitoring starts tonight bench talked and I have notified 3.5”.<sup>263</sup>
277. Mr O’Dwyer originally gave evidence that he did not believe the TARP operators would be notified of the SLR noise monitoring, but later agreed “that they’re aware that there’s noise monitoring going on in the field”:<sup>264</sup>

It seems to indicate that they are aware that there’s noise compliance monitoring has started and that – has been bench-talked. I assume it means it has been bench-talked, which means that it’s been communicated. And I’ve notified three-five, which is one of the positions in the – in the field, which is the maintenance, I believe.

278. The TARP operators may well, therefore, have also been made aware of when the June and July noise monitoring was commencing, and they may well have changed their behavior to be more conservative as a result.
279. Secondly, Mr Elkin agreed under cross-examination that a question was raised over the August results of the 2020 SLR Reports given that the only attended result for the month of August (on 12 August 2020) was 48dB(A), which was some 7 to 9dB above the unattended results of 39 to 41dB(A).<sup>265</sup>
280. In terms of comparing the attended and unattended results, Mr Elkin had stated that:

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<sup>261</sup> Appendix 1 “Chronology of Noise Complaints”.

<sup>262</sup> SLR Winter Reports 2020, located in O’Dwyer Second Affidavit (Exhibit 17, NAC.0021) PDF p 496 (August 2020 report PDF p 659, DPO-22 (June 2020 report p 432, July 2020 report)).

<sup>263</sup> TARP Dashboard log (Exhibit 39, OCA.0184).

<sup>264</sup> T4-38, lines 25–36.

<sup>265</sup> O’Dwyer Second Affidavit (Exhibit 17, NAC.0021) p 676 cf p 697 (DPO-22).

if you're applying the same rigour to the logged information as you do when you're in the field doing the short-term measurement, they should be quite close.<sup>266</sup>

281. In response to a question asking whether the discrepancy in the unattended and attended results raised a concern as to whether or not his unattended monitoring might be producing results that are too low, Mr Elkin said:

In that instance, there's definitely a difference that would need to be investigated.<sup>267</sup>

282. Mr Elkin had earlier agreed that, if there was a difference between the attended and unattended results, "one would definitely hope" he would have investigated.
283. However, when it came to the question as to whether he had investigated that very clear discrepancy, the answer was a clear "no". The following exchange took place:<sup>268</sup>

MS FORSYTH: Yes. Well, you say you've put a lot of rigour into it, but surely where you've got an attended result and an unattended result, isn't it just Acoustics 101 that you'd check them?

MR ELKIN: In this instance, that clearly wasn't undertaken, Ms Forsyth.

284. The lack of concern and diligence is notable. While Mr Elkin said that "I can't sit here and say the whole thing is flawed because of that one result you've showed me"<sup>269</sup>, nor did he say that the results remained valid.
285. While Mr Elkin may have referred to the "one" result, it was the *only* attended result for the August monitoring campaign. There were no attended measurements in July that crossed over with unattended measurements, so they could not be compared. The only other attended measurement during the 2020 Winter Survey was the single June attended result. The attended monitoring result in June was higher than the unattended result (by 2-3dB). While on its own, that result may not have been significant. However, when viewed together with the August result, a real issue is raised as to whether the unattended results

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<sup>266</sup> T6-19, lines 6–8.

<sup>267</sup> T6-24, lines 1–2.

<sup>268</sup> T6-26, lines 21–25.

<sup>269</sup> T6-26, lines 17–19.

- for the whole survey period were under-reporting mine noise. There can be no argument that two attended results do throw all of the unattended results in doubt.
286. Further, neither the attended nor the unattended results aligned with the TARP records for that hour, which recorded mine noise as 44.3dB(A).<sup>270</sup>
287. Despite earlier having said how important it was for the compliance monitoring results to be cross checked with the TARP records, the following exchange took place:<sup>271</sup>
- MS FORSYTH: So from the discussion we've just had, can I take it that SLR, when it did its 2020 Winter survey, June, July and August.
- MR ELKIN: Yes.
- ~~MR ELKIN~~MS FORSYTH: Checked to see whether or not the attended results and the unattended results were consistent both internally and with the TARP logs?
- MR ELKIN: I cannot remember if we did a cross-check against the dashboard data at that time, Ms Forsyth. (our correction)
288. What is notable about this evidence is that, despite Mr Elkin's insistence on the importance of diligence, and cross checking the correlation with the compliance monitoring results, it seemed that no-one bothered to cross check the attended results with the unattended results, and Mr Elkin agreed that he had not cross checked the compliance monitoring results with the TARP logs.
289. On the day in question, the TARP was some 4dB out from both the attended and unattended results.
290. This bodes particularly poorly for the Applicant's future performance, especially where a Stage 3 approval would mean mining operations at much greater capacity than those currently being undertaken following "another ramp-down" of operations just before Christmas of 2020.<sup>272</sup>

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<sup>270</sup> 200812 TARP Dashboard log (Exhibit 39, OCA.0185); T 6-21 lines 35-40.

<sup>271</sup> T6-19, lines 16-25.

<sup>272</sup> T4-45, lines 21-24.

### Can the Applicant Be Relied Upon to Get It Right in Stage 3?

291. As set out in the Noise and Vibration Management Plan (NVMP), the noise limits will be exceeded unless there is adaptive management:

Modelling results show that there is the potential for the EA noise limits to be exceeded in Acland, to the west of the Manning Vale West pit and to the east and south-east of the Willeroo pit with a fully attenuated fleet under worst-case weather conditions.<sup>273</sup>

292. Those exceedances are predicted *despite* (as yet undefined) areas of noise bunding and a fully attenuated fleet.<sup>274</sup> The exceedances are predicted at Mr Beutel's home. The extent of the exceedances are not before the Court as the Applicant choose not to provide the modelling to the Court or to the noise experts and Mr Elkin could not bring the magnitude of the exceedances to mind in the witness box.<sup>275</sup> Mr Elkin did confirm, however, that "there were various items of plant that needed to be shut down in order to meet those noise limits under adverse weather conditions".<sup>276</sup> Presumably this involves (as per Mr Welchman's evidence):

Minimal operations in Manning Vale East pit to [sic] during the night as per paragraph 99 of the Affidavit of David O'Dwyer (42. Affidavit of Dave ODwyer affirmed 5 August 2021).<sup>277</sup>

293. In any event, it is common ground that the Applicant will be reliant upon the real time monitoring system to adapt its activities to meet the limits. Mr Tardio's final comment in the witness box, and clear point of emphasis, was on the need for diligence in the adaptive management system, given its central role as a mitigation measure:

Only just to reiterate, based on what we've just heard, how important the performance monitoring system actually is. And I think I stated this on Friday, that yes, there are other sites – mining sites and other industrial sites – that have performance monitoring systems. But there's something quite critical in this particular application, and that is it's a little bit more

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<sup>273</sup> NVMP (Exhibit 39, NAC.0044) s2.3 p 7.

<sup>274</sup> T6-28 – T6-30.

<sup>275</sup> T6-32, lines 12–16.

<sup>276</sup> T6-32, lines 13-15.

<sup>277</sup> JER Air Quality (Exhibit 24, NAC.0126) [30] p 13.

than just a performance monitoring system. From a couple of the documents that we just saw earlier, the TARP or the performance monitoring system actually plays a key role in mitigation. So it really just means that more emphasis and more robustness needs to be put into this monitoring system because we're relying so heavily upon it. That's quite different to other sites.<sup>278</sup>

294. He has earlier made a similar point:

... But the unique difference in this case is it's a little bit more than that. Performance monitoring has a certain meaning. I would say in this case it's actually a mitigation monitor. And what I mean by that is the mine actually relies quite heavily, as far as I can tell, on the information that is coming out of the monitoring system to ensure that they comply. The obvious example of that is if it appears that a target is going to be exceeded or, indeed, a target is exceeded and they attend to that retrospectively, they have to turn off equipment on site to make sure that they remain within the noise limits.

That's not typical, in my experience, for other sites and other operations. Usually a monitor is there purely as a performance monitor, but with the expectation that the normal powers of mitigation, you know, attenuation by a bunding or attenuation via – attenuation to applicant a particular plant of mufflers and these kinds of things, they're the normal – the normal mitigation that occurs on a site, and there isn't normally such heavy reliance on a feedback – a real time feedback system to get to that particular compliance limit. So, yes, it is a little bit different to a normal performance monitoring system...<sup>279</sup>

295. As to the robustness of the real-time system, there are still critical parameters to be programmed and it will need to be constantly monitored and adjusted and corrected throughout the life of the mine in order for it to provide the protection the community needs from intrusive noise. It is far from a simple system for a whole range of reasons, and the adequacy of its implementation will require a high degree of diligence and skill by the Applicant, its employees and its consultants.

296. As Mr Elkin recognised:<sup>280</sup>

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<sup>278</sup> T6-33, line 44 – T6-34, line 6.

<sup>279</sup> T5-37, lines 21–38.

<sup>280</sup> Email from New Acland Coal to the Department of Environment and Science attaching a letter from New Acland Coal to Department of Environment and Science dated 30 April 2018 and Review of Noise Data – New Acland (Stage 2) Coal Mine prepared by SLR dated April 2018 (Exhibit 39, OCA.0059) p 13; T5-15 lines 19-47.

- a) the 630Hz filter is verified at distances greater than two kilometres from the source of the noise; however
- b) at lesser distances, mine noise in higher frequencies may be experienced and must be corrected for, with that correction varying according to distance from the source:<sup>281</sup>

297. Mr Elkin's April 2018 report said:

In Jeff Parnell's paper entitled "Acoustic Signature of Open Cut Coal Mines" (from Acoustics 2015), analysis is undertaken of noise measurement results and predictions over "several kilometres" (with several references to mining noise at 4 km from a mine) however the paper draws the conclusion that:

"Use of a 630 Hz low pass filter will generally cover most enhancing meteorological conditions without loss of fidelity in the calculation of mine generated dB(A) or dB(C) levels (although additional high pass filter of inaudible acoustic energy may be required for dB(C) assessment) when measuring at distances greater than about 2km."

It is also SLR's experience that mining noise levels are typically  $\leq$  630Hz in rural environments where residences are located kilometres away from the mine.<sup>282</sup>

298. There would appear to be no exact science to when the correlation factor will change depending upon the distance between the mine and sensitive receptors. This is likely because there are no mines of this size within two kilometres of sensitive receptors. Mr Elkin originally stated that "There are other sites, numerous of them in the Hunter that are similar to Acland in terms of a closer community, and a more populous community than, say, the Bowen basin is, or the rest of Queensland" that relied upon real time monitoring systems for adaptive management.<sup>283</sup> Yet, when tested on this, he said he could not

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<sup>281</sup> Email from New Acland Coal to the Department of Environment and Science attaching a letter from New Acland Coal to Department of Environment and Science dated 30 April 2018 and Review of Noise Data – New Acland (Stage 2) Coal Mine prepared by SLR dated April 2018 (Exhibit 39, OCA.0059) p 13.

<sup>282</sup> T5-15, lines 19–47.

<sup>283</sup> T6-34, lines 10–14.

“comment on the precise offset distances from all of the mines in ADA [sic] to their nearest receptors”.<sup>284</sup>

299. His initial evidence that “there are other sites, numerous of them in the Hunter that are similar to Acland in terms of a closer community” was not only not verified when he was pressed for distances, but would appear to run contrary to the paper by Jesse Tribby (referred to in the NVMP<sup>285</sup>), which states: <sup>286</sup>

Current and proposed open cut mines are usually required via their approval to install real-time noise monitoring systems (NMS) as a management tool. In cases where multiple open-cut mines exist in close proximity to noise sensitive receptors, directional noise-monitoring systems (DNMS) are used in order to determine individual contributions from each mine/noise source. However, little independent testing exists comparing the various DNMS available in the market. As NMS are a regulatory requirement, the focus of this study is testing the effectiveness of three DNMS currently being utilised at open cut mines in NSW at accurately determining the direction and contribution of multiple noise sources in controlled scenarios.

...

Various mines in NSW were approached, under the condition of anonymity, to test their DNMS for this research. Many of these mines exist in relatively close proximity in the context of environmental noise levels (still 2-5 kilometres) to sensitive receptors and rely on DNMS as a primary noise management tool, both for managing noise levels generated by site and investigating noise complaints.

[emphasis added]

300. The point, here, is that the Applicant will need to be incredibly diligent in making sure that each time there is a material change in the location of activities which generate noise, the correlation factor is re-assessed.
301. A correlation assessment will also need to be made to account for the fact that the directional system under-reports noise. As the transcript records:<sup>287</sup>

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<sup>284</sup> T6-34, lines 38–45.

<sup>285</sup> NVMP (Exhibit 39, NAC.0044) p 13.

<sup>286</sup> Assessing the accuracy of directional real-time noise monitoring systems by Jesse Tribby (Exhibit 39, NAC.0068).

<sup>287</sup> T5-16, lines 34–43.

MS FORSYTH: Now, with these areas of interest, where you've got a direction microphone that only takes the noise from those areas, whether it be the quadrant or some other angle, is it correct to say that the noise, for want of a better acoustic term, that is recorded by the directional microphone actually under reports the contribution from that noise source and therefore a correct factor is needed to account for that.

WITNESS ELKIN: Yes. In correlation testing that we've done initially for the SentineX and also for the noise compass there's been another factor, which is documented in one of my reports, where that difference in technology, if you want to describe it that way, needs to be accounted for. That's correct.

302. The correlation factor will need to also account for the possibility of more than one Area of Interest (**AOI**) for each monitor:<sup>288</sup>

WITNESS ELKIN: The noise compass is able to define certain angles of view in 25 five degree increments and basically at the present stage, for instance, in Acland there's one area of interest because for – with the 110 or so degrees, which is roughly the north-east quadrant, you were able to capture all of the mining related activity in that area. Acland may end up having two – probably will end up having two areas of interest if there's mining to the east and the west. And so we would – they would be 30 reviewed as part of a noise and vibration management plan to ensure that those areas of interest or angles of view are appropriate to capture all mine noise.

303. There is absolutely no evidence before the Court about how the system is going to cope – and how the correlations are to be done - when there is more than one AOI operating for a single monitor, which may be necessary if the Applicant is operating in multiple pits (or even if it is operating in one pit but the monitor needs to also monitor processing or haulage activities in other parts of the mine). While the Applicant has now used the noise compass at Acland using one AOI, it has not used more than one AOI. (As set out earlier, even where it used the one AOI, it did not go to the trouble of correlating the results against compliance testing, as one would expect were the task approached with a diligent attitude).
304. Once again, getting the system right will be heavily dependent upon the Applicant making sure it not only correlates each AOI, at different phases of mining, but that it correlates multiple AOIs.

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<sup>288</sup> T5-16, lines 25–32.

305. Further, the Applicant still has not worked out how to program a correction for tonal or impulsive noise through the real time system.<sup>289</sup> Mr Elkin explained that the system has a function embedded within in the software to tag impulsive and tonal noises, but due to the fact that it is triggered by non-mine related noises as well as mine related noises, the Applicant is not applying that system.<sup>290</sup>
306. In OCAA's submission, this evidence flies in the face of the Applicant's claims that things have changed, and things will be different going forward. Once again, this is an example of the Applicant fiercely eschewing a conservative approach: where an uncertainty is not in its favour, it ignores it rather than errs on the side of caution. As the noise experts explained in their Joint Expert Report:

Compliance readings within the performance monitoring is not being adjusted for annoying noise character, such as tonal and impulsive impacts. To that end, there is still the potential for exceedances of the noise limits even when the Dashboard is indicating a compliant level.<sup>291</sup>

307. Mr Elkin says that, while the system can identify tonal and impulsive noise and correct for it, the further work to do is identify whether the identified impulsive or tonal noise is mine-related.<sup>292</sup> The following exchange occurred:<sup>293</sup>

MS FORSYTH: And can you just explain how that exercise is proposed to be undertaken?

WITNESS ELKIN: The initial exercise, I foresee at this point, would be through 10 further detailed noise measurements under typical or stage 3 operations. We're going to need to gather more empirical data to be able to look at how often that is happening, and then be able to come up with a system that works in a 24/7, 365-day environment.

MS FORSYTH: And has NAC been able to do that for any part of the stage 2 operations?

WITNESS ELKIN: Not at this point in the system, no.

MS FORSYTH: And has SLR been engaged, or was it engaged at any time, to try to come up with a system that would work for stage 3?

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<sup>289</sup> T5-18, lines 8–11, 33–35.

<sup>290</sup> JER Noise (Exhibit 19, NAC.0036) [23]; T5-18 lines 4-35.

<sup>291</sup> JER Noise (Exhibit 19, NAC.0036) [110].

<sup>292</sup> T5-24, lines 1–5.

<sup>293</sup> T5-24 – T5-25.

...

MS FORSYTH: I understand that, but the issue I'm trying to explore with you is the next step in the process, which is once the software has identified that there's a tonal or impulsive noise, then the next step in the process is to determine whether or not it's mine-related or not mine-related. Has SLR been engaged to do any work to try to come up with some systems or some rules to identify whether it's mine-related or not mine-related?

WITNESS ELKIN: No. That's work still to be done.

308. Mr Elkin said the work would involve collecting data from the attenuated fleet and trying to work out how often the impulsive and tonal noises will occur depending upon distance to mining activities and operator behavior. However, there is absolutely no reason why that sort of work could not have been done, if the Applicant was inclined to do it at all, to manage mine noise for Stage 2 under the Current EA.
309. The existing TARP system under-reports noise because it does not account for those annoying characteristics.<sup>294</sup> Once again, it is work that the Applicant says can be done, and simply has not been done, to manage those annoying noise characteristics through Stage 2 of the mine. That does not bode well for the future of the mine. In OCAA's submission, the prior conduct of the Applicant described above provides a strong indication that the Applicant will adopt an approach to this work going forward that errs on the side of excluding noise as non-mine related, rather than errs on the side of caution. As the Applicant did with the 2dB rule, it is likely to find a consultant to 'validate' an approach that allows it to continue to under-report tonal and impulsive noise as it has for decades.
310. Mr Elkin agreed with the following proposition in relation the proposed TARP system:<sup>295</sup>

And while it might be sophisticated, would you accept that it is a system that will require a high degree of diligence and commitment from both the

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<sup>294</sup> E.g. JER Noise (Exhibit 19, NAC.0036) [101].

<sup>295</sup> T6-32, lines 28–33.

applicant and from the acoustic consultants it engages to successfully implement that system?

311. The Applicant first proposed Stage 3 on 27 May 2007. It has had 14 years to demonstrate that it can be trusted to mine in this location so close to nearby neighbours. It has failed to do so. As set out earlier, even with its very last round of monitoring during the 2020 SLR Reports its own consultant failed to even cross check the results. This Applicant cannot be trusted to mine so close to where people live. It cannot be trusted to apply the diligence that is necessary.

*Conclusion on whether the Applicant can be relied on to get it right in Stage 3*

312. To this day, the Applicant is unable to demonstrate that their now seven-year-old TARP system is working.
313. The Applicant has not put evidence before this Court that would allow for more recent TARP logs, unattended and attended monitoring results to be meaningfully compared, and yet, ask to be trusted that Stage 3 noise impacts will be managed.
314. They have asked for that trust in the context of evidence that is available to the Court which demonstrates that the Applicant has been unable to manage their noise emissions even when operating at a significantly smaller scale than will be expected if Stage 3 is approved.
315. After more than 19 years of relentless noise and dust impacts, this is not trust that the Applicant has earned from aggrieved locals whom OCAA represents.
316. After years of deftly eluding compliance with its EA and enforcement action despite the efforts of the Statutory Party, it is a trust that has not been earned from environmental authority regulators either.
317. It is not in the interests of the broader public that a company with such an extensive record of disregard for its neighbours be granted the privilege of conducting mining operations beside communities. This is not the standard of care that the public expects of the mining industry.
318. Even for a company with more integrity and diligence than the Applicant has displayed, the proposed noise management system for Stage 3 is not

straightforward. It is not a system which can be conditioned tightly enough so that the Applicant's reliability is not in issue.

319. Rather, it relies on complex correlation that cannot be entirely conditioned because of the variable nature of the proposed mining activities. It relies upon keeping the TARP operators trained and honest to identify and exclude data that is not mine noise based on audio recordings, and it relies on the Applicant putting in place a plan to redress impulsive and tonal noises that clearly continue to permeate Mr Beutel's ability to lead a peaceful life as seen in his records of "bangs", "crashes", and "clunks" in his affidavits.<sup>296</sup>
320. The Applicant will not comply with its noise limits. Even if the Court were to find that the Applicant could theoretically comply if they were diligent, embodied safety factors, did the correlations at the right times, were conservative and had demonstrated the required level of diligence and conscientiousness over time, the Applicant's past conduct and attitude towards the Statutory Party's Draft EA in this case show that they will not comply.

### **Mr Elkin is too involved to be objective and independent**

321. As the Court of Appeal has noted,<sup>297</sup> and affirmed by this Court:

experts occupy a special position as witnesses. Their primary duty is to the Court. This duty overrides any obligation an expert witness owes to any party or to the person paying their fee or expenses. The independence of experts is a matter of particular importance to the Court.<sup>298</sup>

322. Shane Elkin has been employed by SLR for the past 26 years and is currently a member of its Executive.<sup>299</sup>
323. According to a memorandum dated 25 July 2019 and disclosed by NAC on 24 September 2021, Mr Elkin's company, SLR have been engaged by NAC to work

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<sup>296</sup> E.g. Beutel Affidavit (Exhibit 1, F.0075) [57].

<sup>297</sup> *Allianz Australia Insurance Limited v Mashbaghati* [2017] QCA 127 at [90].

<sup>298</sup> *Hail Creek Coal Holding Pty Limited & Ors v Michelmores* [2021] QLC 19 at [27].

<sup>299</sup> Curriculum Vitae, Shane Elkin, Individual Statement of Evidence dated 21 October 2021 (Exhibit 39, NAC.0073).

on the Stage 3 expansion project.<sup>300</sup> The memo, written and signed by Mr Elkin, sets out a summary of work undertaken by SLR since October 2018 and states:<sup>301</sup>

The Stage 3 project team (including SLR) have undertaken site visits to determine the location of all four Stage 3 noise monitors.

[emphasis added]

324. Mr Elkin had also undertaken work for the Applicant prior to October 2018, including producing the following memorandum and report in addition to the evidence he prepared for the 2016 hearing:

- a) Report titled “Overview of New Acland Coal Mine’s Noise “Live Dashboard” dated 2 July 2014;<sup>302</sup>
- b) Review of Noise Data – New Acland (Stage 2) Coal Mine prepared by SLR dated April 2018<sup>303</sup>

325. Reports produced from October 2018 include:

- a) SLR Winter Survey 2018;<sup>304</sup>
- b) Draft SLR Technical Note - Change in TARP dated 31/10/2018;<sup>305</sup>
- c) SLR Letter to NAC dated December 2018 “New Acland Coal Mine Stage 3 - 35 dBA Investigation Overview” which was attached to the - Proponent’s change application - Amendment to stated conditions (noise) Exhibit JMC-2 to the Affidavit Juliana McCosker 10.03.2021 soft page 81;<sup>306</sup>
- d) SLR Training Materials for NAC, 2019;<sup>307</sup>

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<sup>300</sup> SLR Elkin Update on Noise Mitigation (ATT to 20190726 Letter from CU to DES) (Exhibit 39, OCA.0165).

<sup>301</sup> SLR Elkin Update on Noise Mitigation (SLR Memo) (Exhibit 39, OCA.0165) PDF p 9 (memorandum p 4).

<sup>302</sup> Annexure E to Shane Elkin Noise Report dated 18 March 2016) (Original Hearing - Ex 1114, NAC.0060) soft page 71)

<sup>303</sup> Exhibit 39, OCA.0059.

<sup>304</sup> Exhibit 39, NAC.0149.

<sup>305</sup> Exhibit 39, OCA.0150.

<sup>306</sup> Exhibit 39, F.0020.

<sup>307</sup> Exhibit 39, OCA.0174.

- e) SLR Technical Notice, 9 May 2019;<sup>308</sup>
  - f) SLR (Elkin) Update on Noise Mitigation 25/07/2019;<sup>309</sup>
  - g) Noise Survey – November 2018 to January 2019’ dated August 2019, prepared for New Acland Coal;<sup>310</sup>
  - h) SLR Technical Note - Correction to ENC Dashboard Noise Levels, 31 January 2020;<sup>311</sup>
  - i) SLR Report 'Noise Survey June 2020';<sup>312</sup>
  - j) SLR Report 'Noise Survey July 2020';<sup>313</sup>
326. It is therefore not surprising that he feels like he is part of the “team”.
327. In the 25 July 2019 memorandum, Mr Elkin stated that “SLR has been engaged to undertake “transition year” (first year of Stage 3) noise modelling and mitigation investigations to aid NAC in their mine planning process.”<sup>314</sup> Mr Elkin’s evidence was that SLR have completed their work for Stage 3.<sup>315</sup>
328. However, in his concurrent evidence, Mr Elkin gave the following exchange: <sup>316</sup>
- MS FORSYTH: And didn’t – does SLR expect to be engaged to undertake the first year of stage 3 calibration monitoring and so on?
- WITNESS ELKIN: Given the history that we have on the site and the knowledge that we’ve assisted them with, it would be my commercial hope, but there’s no guarantees for that, that’s a New Hope decision.
329. A ‘commercial hope’ in work that is contingent on approval of the applications before this Court, in OCAA’s submission, is a precise example of financial interest. In circumstances where a witness stands to gain financially from a

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<sup>308</sup> Exhibit 39, OCA.0163.

<sup>309</sup> Exhibit 39, OCA.0165

<sup>310</sup> Exhibit 39, OCA.0170.

<sup>311</sup> Exhibit 39, OCA.0177.

<sup>312</sup> Exhibit 39, NAC.0065.

<sup>313</sup> Exhibit 39, NAC.0066.

<sup>314</sup> SLR Elkin Update on Noise Mitigation (ATT to 20190726 Letter from CU to DES) (Exhibit 39, OCA.0165).

<sup>315</sup> T5-9, lines 27-43.

<sup>316</sup> T5-9, line 45 – T5-10, line 3.

favourable outcome for the Applicant, when it comes to matters of which the witness is aware that do not favour or support the application, either historically or with respect to the current application and the likelihood of the Applicant's future compliance, there is an inherent conflict between Mr Elkin's financial interest and his duty to the court.

330. In OCAA's submission, Mr Elkin plainly has a vested interest in the outcome of this matter and is therefore not an independent expert witness. The very high likelihood that SLR would be engaged to undertake work for Stage 3 if this application is approved goes beyond a historical relationship with the Applicant<sup>317</sup> and rather involves a direct financial interest in the outcome of the case.
331. His financial interest in the outcome of this matter has bearing on his credit and impartiality and therefore the weight that ought to be given to his evidence.
332. Further, Mr Elkin not only has an interest in securing work from the Applicant in future, but also in defending the work he and his organization have undertaken in the past. In this case, failures to adequately address noise at the mine are failures of both the expert and the Applicant. They both share an interest in minimizing any reputational damage or impact on the current application that may arise from these past failures. Again, in this case Mr Elkin's interests are far more closely aligned with the Applicant than with the court or in an equitable outcome of the legal process.
333. In OCAA's submission, Mr Elkin's lack of independence and lack of objectivity was illustrated not only by what he wrote in the Elkin 2018 Report (addressed elsewhere in these submissions), but also in the way he could not help but refer to himself as, essentially, part of the Applicant when answering questions, particularly when discussing preparations for Stage 3. For example:

WITNESS ELKIN: ...We also need to do measurements under actual stage 3 operations to see whether there are any changes to those types of

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<sup>317</sup> Cf. *Lim v Moreton Bay Regional Council* [2019] QLC 2.

percentages that I've just mentioned. So we really do need more time in order to come up with the chosen way.<sup>318</sup>

WITNESS ELKIN: ... But, clearly, we're doing – I should say, New Hope, through guidance from ourselves and others, are doing better at that now, your Honour.<sup>319</sup>

334. As such, the weight attributed to Mr Elkin's evidence should be diminished.<sup>320</sup>

335. In OCAA's submission, this scenario is akin to the evidence of Mr Boyd in *Fawckner v Department of Natural Resources and Water* [2008] QLC 36. In that case, it was held that Mr Boyd was in effect an agent of the appellant. The court found that the weight to his evidence should be attributed as follows:

Therefore, I intend to have regard only to relevant factual parts of Mr Boyd's statement and treat the argumentative and adversarial statements as no more than submissions on behalf of the appellant. They will be accorded no evidentiary weight. Furthermore, where Mr Boyd's factual statements were challenged by the Department, no weight was given to them. A somewhat similar approach was adopted by the Federal Court in *Yarmirr v. Northern Territory of Australia* (1998) 156 ALR 370 at 400.<sup>321</sup>

336. Perhaps even more importantly, the Court should have no confidence that, if Mr Elkin is engaged as the 'independent' consultant to undertake monitoring, prepare management plans and so on, that he will be able to bring an objective mind to bear on those tasks. Therein lies a significant dilemma: the Applicant is reliant upon a sophisticated system, understood by few, and yet those who do understand the system are too intimately connected with it to bring an objective mind to bear.

337. By contrast to the many complexities that are brought to bear on Mr Elkin's evidence, OCAA engaged Mr Tardio. Mr Tardio was, in OCAA's submission, an objective, measured, pragmatic and persuasive witness.

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<sup>318</sup> T5-18 line 42 – 45.

<sup>319</sup> T5-78, lines 23-26.

<sup>320</sup> Cf. *Elliott v Department of Natural Resources and Water* [2008] QLC 9 at [7].

<sup>321</sup> *Fawckner v Department of Natural Resources and Water* [2008] QLC 36 at [11].

## AIR QUALITY

### **The Applicant's past performance for air quality impacts has been very poor**

#### *Introduction – the Applicant's Response to Ms Harrison's Affidavits*

338. Ms Harrison was OCAA's principal witness in relation to the impacts of dust and fumes from the mine on surrounding residents but she was far from alone in complaining repeatedly about those impacts. A chronology of dust complaints associated with the mine are set out in Appendix 3 based on the (incomplete) complaints registers and records obtained from the Applicant and the Statutory Party. It includes records of numerous unidentified complainants. As with her uncontested evidence regarding noise impacts from the mine, Ms Harrison's evidence of the terrible impacts caused by dust and fumes from the mine was largely unchallenged under cross-examination.<sup>322</sup>
339. Mr O'Dwyer reluctantly agreed under cross-examination that "there could've been better periods to pick to monitor"<sup>323</sup> for PM<sub>10</sub> and that "the applicant struggled to manage fume events because of a combination of the geology, management and the quality of explosives that it used"<sup>324</sup> during the time that Ms Harrison lived at Breinar (ie before the 2011 fume review).
340. Notwithstanding that there were fundamental deficiencies in the Applicant's monitoring programs such that breaches of the Current EA were almost impossible for an ordinary resident to have enforced, and notwithstanding Ms Harrison's lived experience, the Applicant continues to refuse to acknowledge, let alone take accountability for, the terrible impacts it has caused to Ms Harrison. The failure to directly acknowledge a past wrong is telling for the Applicant's corporate culture and attitude to people directly impacted by the mine.
341. Instead of an acceptance and an apology, Mr O'Dwyer's affidavit annexed a bundle of documents given to him by Clayton Utz and claimed that "these documents show extensive engagement that occurred between the Applicant and

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<sup>322</sup> Harrison Affidavit (Exhibit 3, OCA.0215).

<sup>323</sup> T4-25, line 13.

<sup>324</sup> T4 23, lines 44–47.

- Mrs Harrison (and her daughter and son in law) and the Applicant and DES within the approximate period of 2006-2010 that is the focus of the Harrison First Affidavit.”<sup>325</sup>
342. While they may have showed the Applicant ‘engaged’, they say nothing about the quality of that engagement. Providing a person who is clearly distraught with a set of meaningless test results – test results which often said that compliance ‘could not be determined’ - was and remains a wholly inadequate response.
343. Exhibiting those documents was clearly an attempt to downplay the impacts of the mine on Ms Harrison. It was a poor attempt. The documents were incomplete, not even addressing the impact of the mine blast in June 2020,<sup>326</sup> or whether Mr Moore had ever done a report “closing out” Ms Harrison’s complaints.<sup>327</sup> The provision of those documents is illustrative of a corporate culture and attitude that has existed and continues to exist at the Applicant - an attitude that flows through in the Applicant’s responses to questions about its intention to mine those parts of the proposed Stage 3 area lease which were not the subject of the application<sup>328</sup> and its failure to correlate the noise monitor after the 2016 hearing (issues dealt with elsewhere in these submissions). That culture and attitude is the direct opposite of what is required to elicit confidence that the same impacts will not occur in the future to surrounding landowners if Stage 3 of the mine proceeds.
344. The Applicant’s other response to Ms Harrison’s evidence was to inquire into the way in which the family had managed the proceeds on the sale of the property. Not only was that issue irrelevant to the reason why Ms Harrison and her family left Bremar, but the Applicant’s approach to Ms Harrison’s evidence was once again emblematic of a company that seeks to place blame elsewhere rather than take responsibility for the damage it has caused.

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<sup>325</sup> O’Dwyer Second Affidavit (Exhibit 17, NAC.0021) [15].

<sup>326</sup> T4-22, lines 26; T4-23, lines 7–8.

<sup>327</sup> T4-24, lines 1–4.

<sup>328</sup> T4-59, lines 1–5.

345. The Applicant’s response to Ms Harrison’s evidence - through Mr O’Dwyer and its cross-examination of Ms Harrison - did not in any way undermine her clear evidence about the impacts of noise and dust on her amenity, the Applicant’s failure to change its management to mitigate severe dust impacts, and her and her husband’s move from their home after becoming “increasingly desperate to move because of the deteriorating health of our family members, our animals and our business” caused by the mine.<sup>329</sup>
346. The context surrounding the severity of those impacts – all uncontested – relevantly includes:
- a) Ms Harrison built and moved into her “dream home for retirement” at “Bremar” in 1998,<sup>330</sup> two years before learning through the news of the Applicant’s purchase of the mine.
  - b) In the beginning the mine was approximately 5km from Ms Harrison’s property and operated only during daylight hours, however, within the first year it was operating overnight.<sup>331</sup>
  - c) In Stage 1 of the mine, in respect of the noise and dust haze from the mine, “conditions remained liveable, but unpleasant.”<sup>332</sup>
  - d) The impacts of the mining “were far worse” when Stage 2 began in 2006.<sup>333</sup>
  - e) By 2007 the mine was approximately 1.25km from her home.<sup>334</sup>
  - f) By early 2008, the noise and dust impacts from the mine were so bad that Ms Harrison and her family started negotiating with NAC to sell their property and move away from the mine.<sup>335</sup>

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<sup>329</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [147].

<sup>330</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [16]-[18].

<sup>331</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [24].

<sup>332</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [26].

<sup>333</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [27].

<sup>334</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [28].

<sup>335</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [144].

- g) Throughout 2008 and 2009 they tried to sell their property on the open market but “were told by multiple real estate agents that they would not consider it worthwhile to bring any prospective buyers to the property because of the proximity to the mine.”<sup>336</sup> Nobody inspected Bremar to purchase except NAC.<sup>337</sup>
- h) Ms Harrison and her husband “became increasingly desperate to move” because of the deteriorating health of their family members, their animals and their business.”<sup>338</sup>
- i) The family ultimately sold their property and moved away due to these impacts in 2010.<sup>339</sup>
347. Ms Harrison recorded many complaints she made to NAC about the impacts of dust and fumes on her home from 2006-2010. Her observations and records of complaints include, *inter alia*:

On 29 October 2006, I wrote in my diary, “I rang the mine about the dust in our house ...”<sup>340</sup>

Increasingly from 2007 onwards, I observed heavy dust storms [caused by the mine] at Bremar. At times, I could hardly see through them, and they lasted for up to ten days at a time depending on the winds.<sup>341</sup>

I could see the dust coming off the overburden when it was windy and I could see it rising out of the mine itself. I could see that the dust covered the grass and the water that the animals had to eat and drink. I could see dust rise off the grass as the stock grazed.<sup>342</sup>

On 29 January [2007], I wrote “Dust got bad. Rang the mine, got Sandra. Tried to get David Genn about the curtains. Dust became unbearable. Again late, I tried to ring mine, could not get an answer, left message. They did not ring me back.” David Genn was NAC’s Principal Environmental Advisor at the time.<sup>343</sup> ...

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<sup>336</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [146].

<sup>337</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [146].

<sup>338</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [147].

<sup>339</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [355], [363].

<sup>340</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [43].

<sup>341</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [52].

<sup>342</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [53].

<sup>343</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [55].

As time went on into 2008 and 2009, mining operations intensified and Ken and I would frequently get woken up in the middle of the night as though there were large excavators outside of our bedroom window.<sup>344</sup>

On 3 January 2008, I wrote, “Rang mine about dust all night. Spoke to Laura [Morris, NAC’s environmental officer at the time]. I was awake with the dust from the mine most of the night as they were dumping soil all night. I rang Laura about the dust.”<sup>345</sup> ...

On 25 July 2008, I wrote, “The mine was dusty through the night,” and in more detail, “The mine got going and the dust got me through the night.”<sup>346</sup>

On 26 July 2008, I wrote, “I choked up with mine dust. It was a terrible day with fine dust. I stayed in the house most of the day.”<sup>347</sup> ...

On 7 August 2008, I wrote, “Rang the mine – dust is terrible, about 5:15pm. The dust in the afternoon was unbearable and I was crook from it, rang the mine.”<sup>348</sup>

On 8 August 2008, I wrote, “Mine blasted. Dust came this way. Rang mine 5:15-5:30pm about the dust again. I was still crook from the mine and then they had the dust bad again in the afternoon.”<sup>349</sup>

On 18 August 2008, I wrote, “Rang mine about dust. It was a horrid day again and the dust was terrible and it is cold.”<sup>350</sup>

On 19 August 2008, I wrote, “Dust bad. Blast not recorded by me.”<sup>351</sup>

On 20 August 2008, I wrote, “The dust, bad again. The dust was bad in evening again. ...”<sup>352</sup>

On 3 September, I wrote, “Dust bad at night.”<sup>353</sup>

On 4 September 2008, I wrote, “Dust bad at night.”<sup>354</sup>

On 8 September 2008, I wrote, “The dust bad all night.” ...<sup>355</sup>

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<sup>344</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [141].

<sup>345</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [142].

<sup>346</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [166].

<sup>347</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [167].

<sup>348</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [171].

<sup>349</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [172].

<sup>350</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [175].

<sup>351</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [176].

<sup>352</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [177].

<sup>353</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [181].

<sup>354</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [182].

<sup>355</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [183].

On 10 September 2008, I wrote, “Dust bad. Having trouble with dust again.”<sup>356</sup>

On 11 September 2008, I wrote, “Marg had to wear a mask all night. Dust bad. I had a bad chest and throat again.”<sup>357</sup>

On 29 September 2008, I wrote, “Mine dust bad. I got really bad from it and I had to leave the shed.”<sup>358</sup>

348. The “unbearable”<sup>359</sup> and “terrible”<sup>360</sup> living conditions that Ms Harrison experienced caused by dust from the mine are difficult to capture in pictures, but some measure of it is seen in the photographs exhibited to her first affidavit.<sup>361</sup> She described this photograph from 2007 as follows:

Exhibited to this affidavit and marked PAH-5 is a photograph of the dust from the mine taken from Margaret’s garden at Bremer in 2007. The two trees in the hazy background were the only trees in between us and the mine, but the mine sat up higher than the canopy of those trees. This isn’t visible in the picture because the dust is impairing visibility. We used to get days and nights like what is shown in this photograph quite often. I would estimate that approximately seven out of ten nights looked like that at the time.<sup>362</sup>

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<sup>356</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [185].

<sup>357</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [186].

<sup>358</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [188].

<sup>359</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [55].

<sup>360</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [167], [171], [175], [189], [306], [312], [332], [342].

<sup>361</sup> Harrison Affidavit (Exhibit 3, OCA.0215) e.g. PAH-5, PAH-10, PAH-14.

<sup>362</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [54].

## PAH-5



**Photograph taken by Ms Harrison showing typical dust haze from mine in 2007**

349. Despite Ms Harrison's repeated complaints from 2006-2008, the dust impacts she and her family experienced got substantially worse as NAC mined closer and closer to her home. The following extracts are a sample of her experiences documented from 2009 onwards.

I recall that 2009 and the beginning of 2010 were the worst I experienced for dust impacts.<sup>363</sup>

On 5 March 2009, I wrote, "Dust shocking all day and night. Noise annoyed me in bed. The noise and dust was very bad when I got home. ..."<sup>364</sup>

On 16 April 2009, I wrote, "Rang mine 9:15pm and left message. Rang again 9:50pm left message. Frank rang back 10:20. They cut the noise down and watered the dust," and in more detail, "I rang mine twice and left message and then Frank rang 10:20pm and they cut the noise back but the dust was still there even though they watered."<sup>365</sup>

On 29 April 2009, I wrote, "I rang mine and got Tony at 7:45 about dust and how I had masks since getting home," and in more detail, "The dust was shocking when we got home and bad all night. I rang mine about the

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<sup>363</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [212].

<sup>364</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [223].

<sup>365</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [234].

dust and got Tony as he could not do anything about it. I told him I record it and say I was sick from it.”<sup>366</sup>

On 2 May 2009, I wrote, “The dust bad outside most of the day. I had a mask on most of the day. ...”<sup>367</sup>

On 8 May 2009, I wrote, “Rang Laura at mine. She not there at 10:20am about dust all night. Laura rang back. Rang mine 5:10pm about dust, got Lynsay. Laura rang back and I broke down while talking to her.”<sup>368</sup>

On 2 July 2009, I wrote, “Rang mine at 5:45pm about dust. Got Mark. It was a nice day apart from the dust.”<sup>369</sup>

On 3 July 2009, I wrote, “Rang mine 6:30pm about dust, got Don,” and in more detail, “It was a shocking day with westerly wind and dust. I rang mine got Donnie.”<sup>370</sup>

On 4 July 2009, I wrote, “Dust bad, did not ring. It was a horrid cold day and windy.”<sup>371</sup>

On 13 July 2009, I wrote, “Dust bad when we got home. The dust was bad and got worse in the afternoon as went on.”<sup>372</sup>

On 14 July 2009, I wrote, “Dust bad. I did not ring. I got home early and the dust was bad again.”<sup>373</sup>

On 19 July 2009, I wrote, “Dust very bad. Ken rang mine and got Mark approx. 6pm,” and in more detail, “I got bad with dust again. Ken rang mine and got Mark. I could hardly talk or breathe.”<sup>374</sup>

On 4 August 2009, I wrote, “Mine blast. Bad fine dust all afternoon. I did not do any chores as the fine dust was bad again. I have put towels up around bedroom windows against fine dust and think it has done a bit of good.”<sup>375</sup>

On 5 August 2009, I wrote, “Bleeding nose on waking. The dust was bad morning. Very bad when we got home,” and again, “The dust was bad before we left and bad when we got home. We got home about 7:15pm.”<sup>376</sup>

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<sup>366</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [238].

<sup>367</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [239].

<sup>368</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [243].

<sup>369</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [273].

<sup>370</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [274].

<sup>371</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [275].

<sup>372</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [277].

<sup>373</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [278].

<sup>374</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [282].

<sup>375</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [293].

<sup>376</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [294].

On 8 August 2009, I wrote, “Dust not bad overnight but a lot about during day,” and again, “The dust was bad afternoon till dark but was good during night.”<sup>377</sup>

On 9 August 2009, I wrote, “In bed sick with dust. Could not breathe, had to have steam bath. I changed the sheets and washed and cleaned the dust off the falcon and got all the dust on my chest. Ended up sick and went without dinner and went to bed. Had bad coughing session, all the trouble I got with the dust, had bad night.”<sup>378</sup>

On 13 August 2009, I wrote, “Mine...noise and dust bad when we got home. Rang mine 8pm, got Cam. Rang mine 10:15, noise still bad. Got Cam all 3 times,” and in more detail, “Noise terrible and dust so bad I had to put mask on to unpack car. Rang mine 8pm and complained to Cam about the lot. He is the first person to agree with me in 7 years. He could see the dust floating our way.”<sup>379</sup>

On 15 August 2009, I wrote, “Rang mine got Chris Martin. Dust terrible 5pm. I had to wear a mask in the house getting ready to go to Toowoomba.”<sup>380</sup>

350. Ms Harrison’s evidence contains many more records of life under mine dust and repeated complaints to NAC.
351. The experts had the benefit of Ms Harrison’s first affidavit when assessing likely impacts to the community.

*Extent and Quality of PM<sub>10</sub> Monitoring*

352. The EIS shows that the Applicant’s monitoring of its past mining activities was severely inadequate at the time Ms Harrison was impacted by the mine. The Applicant’s monitoring in the 11 years preceding the EIS being prepared consisted of:<sup>381</sup>
- a) quarterly monitoring of PM<sub>10</sub> at various locations around the mine from 2003;
  - b) monthly dust deposition sampling at locations around the mine; and

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<sup>377</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [297].

<sup>378</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [298].

<sup>379</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [304].

<sup>380</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [306].

<sup>381</sup> EIS – Chapter 9 Air Quality, Table 9-3 (Exhibit 39, EHP.0027) soft page 13.

- c) simultaneous sampling of TSP, PM<sub>10</sub> and PM<sub>2.5</sub> at Balgowan with compositional analysis to determine coal content.
353. The Applicant's air quality monitoring around the mine meant:
- a) There were 27 days of PM<sub>10</sub> concentrations (24-hour average) monitoring at up to 9 locations, which was more routinely about 5 locations on each monitoring date, over approximately 9.5 years (March 2003 to September 2012).<sup>382</sup>
  - b) There were 27 days of monitoring of TSP, PM<sub>10</sub> and PM<sub>2.5</sub> concentrations (24-hour average) at Balgowan<sup>383</sup> from December 2011 to April 2012.<sup>384</sup>
354. There are very few periods of 24-hour PM<sub>10</sub> monitoring across the duration of the mining operations in the time captured by the EIS, with less than 0.75% of days monitored, giving low probability of the capture of higher impact events, which are inevitably intermittent.<sup>385</sup>
355. The 24-hour average sampling of PM<sub>10</sub> concentrations was also not targeted at the worst conditions for sensitive receptors. The EIS did not state the meteorological conditions during the sampling periods but a number of reports exhibited to Mr O'Dwyer's Second Affidavit provide these details for some of the 24-hour samples of PM<sub>10</sub>. For all but one of the records, the predominant wind direction was easterly or east-north-easterly.<sup>386</sup>
356. As Ms Harrison's residence was located to the east of the mine, sampling for a 24-hour period for PM<sub>10</sub> suspended particulate matter at Ms Harrison's residence while the wind was blowing predominantly from the north or east (i.e. from her residence *toward* the mine) is not remotely representative of common or worst-case conditions for dust impacts from the mine on her residence. These sampling

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<sup>382</sup> EIS – Chapter 9 Air Quality, Table 9-3 (Exhibit 39, EHP.0027) soft pages 15-16.

<sup>383</sup> Bangalow is located northwest of the mine as shown in EIS – Chapter 9 Air Quality (Exhibit 39, EHP.0027) soft page 14.

<sup>384</sup> EIS – Chapter 9 Air Quality, Table 9-4 (Exhibit 39, EHP.0027) soft pages 16-17.

<sup>385</sup> JER Air Quality (Exhibit 24, NAC.0126) [227].

<sup>386</sup> O'Dwyer Second Affidavit (Exhibit 17, NAC.0021) soft pages 58, 55-56, 68 and 132 (cf p 144).

- times reflect conditions when air quality impacts from the mine would be *least expected*.<sup>387</sup>
357. Mr O'Dwyer recognised that the predominant wind direction is east- north-easterly<sup>388</sup> (i.e. away from Ms Harrison's residence) and was not aware of there being attempts to time monitoring during weather conditions that would be more likely to demonstrate exceedances at that location.<sup>389</sup>
358. These records exhibited to Mr O'Dwyer's Second Affidavit which describe a predominant easterly or east-north-easterly wind direction at the time of monitoring are consistent with Ms Harrison's observation that sampling typically occurred when the wind was blowing towards the mine from her house (i.e. the best case scenario for the Applicant). She stated in relation to the monthly 24-hour sampling period for PM<sub>10</sub> concentrations "if the wind was blowing towards our place, it [the 24-hour sampling device] was not ever put out"<sup>390</sup> and:
- I observed that when the wind was blowing westerly, from the direction of the mine towards our house, PM10 was generally not monitored until the wind changed to an easterly direction. I found that sometimes there were delays of up to a month after monitoring was scheduled to occur, depending on the wind direction. This was frustrating because the worst impacts were always when the wind was blowing westerly.<sup>391</sup>
359. The air quality experts were briefed with monitoring data since the EIS but there was no fundamental change in the inadequate system employed until October 2019 when a real-time monitoring system was introduced as part of the TARP system. The results from the new system coincided with a substantial reduction in mine production<sup>392</sup> as in the "last quarter 4 2019, [the Applicant] had the reduced night shifts, so that's reduced activities between 1 and 6 am" and "large

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<sup>387</sup> T4-25, lines 4–5.

<sup>388</sup> T4-25 line 5.

<sup>389</sup> T4-24, lines 44–47.

<sup>390</sup> T2-35, lines 15–16.

<sup>391</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [253].

<sup>392</sup> JER Air Quality (Exhibit 24, NAC.0126) [221].

- redundancies”.<sup>393</sup> The results of this monitoring are, therefore, not representative of earlier production levels in different locations.
360. Dr Taylor and Mr Welchman were of the same opinion in relation to the PM<sub>10</sub> monitoring: given PM<sub>10</sub> monitoring was only done on average 3 times per year, there was no data to establish whether or not the PM<sub>10</sub> limits (averaged over 24 hours) in the EA were met on the other 363 days of the year.<sup>394</sup>
361. Dr Taylor described the PM<sub>10</sub> monitoring samples taken over the period between 2006 and Mrs Harrison’s departure from Bremar as “completely insufficient and inconsiderately timed with respect to determining potential for adverse or nuisance dust impacts at the former Harrison residence.”<sup>395</sup> As explained by Dr Taylor, even if the dust deposition limits were met over the month, that does not discount there being high impact PM<sub>10</sub> results (averaged over 24 hours) occurring at a relatively low frequency.<sup>396</sup>
362. Mr Welchman agreed with Dr Taylor that the technology had been available for many years in order to conduct real-time PM<sub>10</sub> monitoring,<sup>397</sup> and that that could have been done.<sup>398</sup>
363. The fact that the Applicant did not do that monitoring, despite numerous complaints from several surrounding residents about dust (including those by Ms Harrison), is a poor reflection on its culture, diligence and concern for nearby residents.

*Mr Welchman and Dr Taylor’s Opinions*

364. Without acknowledging in the JER any inadequacies in the extent or timing of air quality sampling, Mr Welchman concluded that “on the days when

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<sup>393</sup> T4-45, lines 1–5 (during cross-examination of David O’Dwyer).

<sup>394</sup> JER Air Quality (Exhibit 24, NAC.0126) [313]-[314]

<sup>395</sup> JER Air Quality (Exhibit 24, NAC.0126) [329].

<sup>396</sup> JER Air Quality (Exhibit 24, NAC.0126) [344].

<sup>397</sup> JER Air Quality (Exhibit 24, NAC.0126) [222].

<sup>398</sup> T7-129, lines 1–5.

- monitoring of PM<sub>10</sub> was conducted, the mine does not appear to have had an unreasonable impact on Aileen Harrison's residence as a result of PM<sub>10</sub>.”<sup>399</sup>
365. Mr Welchman found that the dust *deposition* recorded at Ms Harrison's residence was likely to be under the EA limits, based upon the monitoring that had been done. It is significant to note that the dust deposition limits are averaged over one month, while the PM<sub>10</sub> limits are a 24-hour average. The dust deposition results are inconclusive about the likelihood of the PM<sub>10</sub> limits being met.
366. The brevity of Mr Welchman's analysis of the impacts on Ms Harrison's residence is noteworthy:
- a) Mr Welchman's analysis comprises merely 9 short paragraphs totaling one page.<sup>400</sup>
  - b) In contrast, Dr Taylor's analysis spans over 50 paragraphs spanning over 11 pages.<sup>401</sup>
367. Dr Taylor gave weight to Ms Harrison's lived experiences and went about the task of examining whether there really was an inconsistency between the monitoring data and her lived experience. In particular, he analysed the monitoring data that was collected and was able to reconcile the data with her lived experience through a detailed examination of the history of mining, meteorological conditions, her complaints and a cross check using the modelling done for Stage 3. He does not conclude that dust deposition was necessarily above the EA limits but does conclude that there were likely exceedances of the PM<sub>10</sub> limits.<sup>402</sup> Rather than showing a lack of independence, as suggested by the Applicant's cross-examination, Dr Taylor's detailed investigations, including his internet searches to try to identify the circumstances surrounding the exodus from the town of Acland, were illustrative of his diligence.<sup>403</sup>

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<sup>399</sup> JER Air Quality (Exhibit 24, NAC.0126) [314].

<sup>400</sup> JER Air Quality (Exhibit 24, NAC.0126) [313]-[315],[355]-[357].<sup>401</sup> JER Air Quality (Exhibit 24, NAC.0126) [316]-[354] and [362]-[377].

<sup>401</sup> JER Air Quality (Exhibit 24, NAC.0126) [316]-[354] and [362]-[377].

<sup>402</sup> JER Air Quality (Exhibit 24, NAC.0126) [352].

<sup>403</sup> T7-125 – T7-126.

368. Dr Taylor noted in relation to Mr Welchman's views:<sup>404</sup>

[316] In the opinion of John Taylor, Simon Welchman has not considered the uncertainties and limitations of the monitoring and is very limited in his opinion particularly in respect of PM<sub>10</sub> impacts.

[317] Simon Welchman has not attempted to provide an interpretation of the lived experience reported in the Affidavit of Aileen Harrison, nor discussed the likelihood of the PM<sub>10</sub> monitoring across the period identifying potential elevated dust levels.

369. Based on this wider analysis, Dr Taylor stated:<sup>405</sup>

[227] It is the opinion of John Taylor that the monitoring detail provided in the EIS is very limited and inadequate to provide an indication of potential impacts associated with mining operations. There are very few periods of the 24-hour PM<sub>10</sub> monitoring across the duration of the mining operations, less than 0.75% of days, giving low probability of the capture of higher impact events as these are also intermittent. Impacts associated with discrete operations such as mining and associated materials handling and processing operations vary with meteorology, activity level and the fugitive emission rates. Real-time particulate monitoring coincident with site based meteorological monitoring over a continuous, extended period is required to gain appreciation of this variability and assist in development of understand of the nature and potential cause of impacts. ...

[329] The number of monitoring samples taken through this period is completely insufficient and inconsiderately timed with respect to determining potential for adverse or nuisance dust impacts at the former Harrison residence. In John Taylor's opinion, to understand potential nuisance dust impacts at the former Harrison residence a minimum of continuous real-time monitoring of PM<sub>10</sub> and/or TSP with coincident meteorological monitoring through at least a 6-month period of the year from autumn to spring and including winter is required. Ideally this should have been installed in 2007, but most definitely by 2008, especially as the mine was in the process of commencing the second pit area near the former Harrison residence. ...

[339] ... Deposition monitoring and highly intermittent short-period (approximately 1 day) batch PM<sub>10</sub> monitoring do not provide information with adequate temporal resolution to provide any clarity to the potential cause of impacts.

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<sup>404</sup> JER Air Quality (Exhibit 24, NAC.0126) [316]-[317].

<sup>405</sup> JER Air Quality (Exhibit 24, NAC.0126) [227], [329], [339], [340].

[340] ... the monitoring performed is highly constrained in ability to detect dust impacts, particularly in relation to the locations reporting dust impacts, and the limited frequency of wind events that would have potential to lead to dust impacts at the affected sensitive receptor sites.

370. Dr Taylor's conclusion that the 24-hour PM<sub>10</sub> sampling was "inconsiderately timed with respect to determining potential for adverse or nuisance dust impacts at the former Harrison residence"<sup>406</sup> reflects the available meteorological conditions noted earlier for the 24-hour monitoring of PM<sub>10</sub> when the wind blew from the north or east – that is, *from* Mrs Harrison's house *towards* the mine located to the west. Those were the conditions *least likely* to identify air quality impacts from the mine.

371. Based on his much more detailed analysis and consideration of all the available information, Dr Taylor concluded:<sup>407</sup>

[369] While the air quality monitoring undertaken by NAC is generally in accordance with what is detailed in the Current EA, it is not adequate to provide any clarity with respect to potential activities leading to recorded elevated results.

[370] The monitoring methods employed (dust deposition and the form of PM<sub>10</sub> monitoring undertaken) are known as batch methods whereby a single sample is collected over the entire monitoring period, with analysis providing one result. While it is possible to analyse the composition of the sample, there is no ability to understand the temporal accumulation of the sample. Understanding the temporal behaviour of air quality impacts, and particularly how meteorological conditions influence air quality, assists with understanding the potential cause of adverse air quality impacts.

[371] The dust deposition sampling provides a continuous sampling method, but with the extended period of the sample resolution of short-term events is not possible. The approach is also heavily biased toward aerodynamically larger particles that more readily deposit.

[372] The PM<sub>10</sub> monitoring was able to provide some indication of potential impacts on a shorter time frame of 24-hours. Meteorological behaviour and mining activity can be highly variable. Real-time correlation of the dust level with meteorological conditions assists in understanding the significant sources that contribute to measured dust

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<sup>406</sup> JER Air Quality (Exhibit 24, NAC.0126) [329].

<sup>407</sup> JER Air Quality (Exhibit 24, NAC.0126) [369]-[373].

levels. Unfortunately, the PM<sub>10</sub> monitoring methods employed at Acland did not provide the ability to correlate dust concentrations with meteorological variation.

[373] The PM<sub>10</sub> monitoring was too infrequent to provide reliable understanding of air quality impacts, particularly in relation to residents to the north and northeast [where Ms Harrison’s residence was located]. Impacts at these locations would not be highly frequent, however in the earlier periods of the mine would have been severe due to the proximity of operations, particularly if emissions were not adequately controlled.

372. The Court is faced with:

- a) Ms Harrison’s unchallenged, direct evidence of the “unbearable”<sup>408</sup> and “terrible”<sup>409</sup> conditions caused by dust from the mine;<sup>410</sup>
- b) Mr Welchman’s opinion that “available monitoring data does not demonstrate that the mine had an unreasonable impact on the amenity of the sensitive receptors”;<sup>411</sup> and
- c) Dr Taylor’s views and much more detailed analysis that the monitoring was inadequate to conclusively determine impacts.

373. Dust from the mine was clearly a nuisance to Ms Harrison, and by implication other neighbouring farmers, over many years and, at least insofar as PM<sub>10</sub> is concerned, there was no monitoring undertaken in accordance with condition B3(b) of the Current EA to demonstrate otherwise.

374. The Court does not need to come to any conclusions on whether or not, and to what extent, the Current EA limits were breached. As explained in opening, this is not a de facto prosecution. Further, the data in relation to air quality is simply insufficient. The more important issue is whether the Applicant’s response to Ms Harrison’s complaints was appropriate.

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<sup>408</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [55].

<sup>409</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [167], [171], [175], [189], [306], [312], [332], [342].

<sup>410</sup> JER Air Quality (Exhibit 24, NAC.0126) [313].

<sup>411</sup> JER Air Quality (Exhibit 24, NAC.0126) [360].

375. The Court ought to conclude, based upon the evidence of both experts, that the monitoring and the response of the Applicant to Ms Harrison's complaints were manifestly inadequate.

### **NOx mine blast fumes**

376. In addition to the extended impacts of dust, mine blast fumes containing oxides of nitrogen (NOx) and sulfur compounds were not appropriately managed by the Applicant while Ms Harrison was residing at Bremar.<sup>412</sup> For instance, she recorded:

On 25 June 2009, I wrote, "Got Tim when I rang mine at 7:15-20am about smell like carbide. Very strong. I could not breathe. Laura came over. The smell when I put my head outside made me cough and dry reach. Sick all day. Rang mine and Laura came over. ..."<sup>413</sup>

On 29 June 2010, I wrote, "Mine blast. It was a big one. Terrible smell, burnt eyes, nose, throat and chest. I was the only one here when the smell and dust got here." I remember this was the day that Brett and Margaret moved out.<sup>414</sup>

377. Ms Harrison exhibited pictures of dust and fumes rising from mine blasts close to her house, such as the following photograph exhibited as PAH-14, which she described at [359] of her affidavit as follows:

[359] On or about June 2010 there was another blasting event. I took a photograph of this event on this day. Exhibited to this affidavit and marked PAH-14 is that photograph. I remember that was the day that my family and I were moving the furniture out of Bremar to go to our new place. I hadn't quite made it to the car by the time a blast went off and I remember my eyes were burning almost too much to drive. I was concerned for my safety driving in this state but thought it safer than remaining there.

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<sup>412</sup> T4-23, lines 44-47.

<sup>413</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [269].

<sup>414</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [361].



**Photograph taken by Ms Harrison of mine blast on or about June 2010**

378. Mr O’Dwyer was asked about the photograph exhibited as PAH-14 to Ms Harrison’s affidavit in cross-examination. He accepted that he had not exhibited or responded to this photograph in his affidavit reply to Ms Harrison’s affidavit or put any evidence before the Court about the fumes that arose from that blast event.<sup>415</sup>
379. He was asked, “I just want you to note the colour there; Mr O’Dwyer, from your experience of blasting does that indicate to you that there was a problem with that blast?”, to which he responded, “Yes, it does.”
380. Mr O’Dwyer accepted that the colours in this photograph (PAH-14) indicated that, on the NOx rating scale showing the typical appearance of blasts from level 0-5, this blast was at “the high end of the scale, yes”.<sup>416</sup>
381. Mr O’Dwyer accepted that, based on a fact sheet of information about avoiding exposure to oxides that he was familiar with as a senior mine executive,

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<sup>415</sup> T4-22, line 26; T4-23, lines 7–8.

<sup>416</sup> T4-23, lines 4–5.

- symptoms from high exposure include “Eye irritation, coughing and shortness of breath”.<sup>417</sup>
382. Ms Harrison’s evidence of shortness of breath and “[T]errible smell, burnt eyes, nose, throat and chest”<sup>418</sup> was entirely consistent with the symptoms of exposure to blast fumes containing high levels of NO<sub>x</sub>.
383. The Court should accept her uncontradicted evidence and conclude that the mine has, in the past, caused adverse impacts due to blast fumes.
384. However, the problem did not end following Ms Harrison’s departure from Breinar.
385. In his affidavit, Mr Beutel outlines ongoing issues with blast fumes and blast impacts.<sup>419</sup>
386. Dr Taylor considered the impact of blasting and the revised chemical composition of the product currently being used by the Applicant and identified sulfur compounds as a potential concern for future blasting events.
387. In considering the available information, Dr Taylor formed the view:
- With the uncertainty in relation to the emissions of sulfur bearing compounds from the blasting products used at Acland, the proximity of blasting to sensitive receptor locations, the lower wind speed conditions experienced within the region of the mine than originally understood and, complaints relating to nuisance blasting impacts, John Taylor believes ongoing monitoring related of sulfur bearing compounds associated with blasting, similar to that used in the SLR study, would assist to understand the potential for adverse impacts and provide greater confidence in relation to impacts, both to mine and blasting personnel and those occupying the nearby sensitive receptor locations. Coincident monitoring of carbon monoxide (CO) would also assist the determination of potential impacts from blasting activity. In John Taylor’s opinion monitoring should occur in relation to blasts within 1.5 km of a sensitive receptor.<sup>420</sup>
388. Subsequent to JER Air Quality, the Applicant tendered an affidavit from Patrick Joseph Wells affirmed on 2 November 2021. This affidavit provided updated

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<sup>417</sup> T4-23, lines 10–20.

<sup>418</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [269], [361].

<sup>419</sup> Beutel Affidavit (Exhibit 1, F.0075) [GB-6].

<sup>420</sup> JER Air Quality (Exhibit 24, NAC.0126) [82].

information on the products proposed to be used by NAC in blasting for Stage 3. These products are expected to have a higher sulfur content than the blasting products used historically.

389. Dr Taylor was asked about the impact of this during cross-examination:

MS FORSYTH: Dr Taylor, having regard to the additional information that's been provided in Mr Well's affidavit, do you maintain your views that there should be some additional blast monitoring undertaken and, if so, for what substances and in what circumstances?

DR TAYLOR: Yes. So the recent affidavit of Mr Wells, was it, sort of, in – well, indicated that the sulphur-bearing content of the explosion, which is relatively higher than our initial assessment in the original JER, which was using ANFO with a – the sulphur content was in the – the – the diesel, which was only about five per cent of the product, and it was only if the sulphur content had dropped down to 10 per cent. Ten ppm, not 10 per cent. And the explosives now that they're using have a sulphur content of 409

STILGOE M: So higher

DR TAYLOR: was it? What?

STILGOE M: Significantly higher.

DR TAYLOR: Significantly higher. And that's ppm throughout the whole product. So the full tonnage, not just the five per cent diesel that they have in it, so it's significantly higher. So doing some numbers, similar to what we did in the JER with the new numbers, the impacts have potential to be quite significant. And so I'm not – I don't know what's occurred in the past, but it's more – I think, going forward, they need to get a better understanding of what the potential is for the impacts. Now SLR did a

STILGOE M: So your – the short answer to Ms Forsyth's question is that you still think blast monitoring

DR TAYLOR: Yes. Very

STILGOE M: is important?

DR TAYLOR: Very

STILGOE M: Okay.

DR TAYLOR: Very much so.

STILGOE M: And that's because of the higher sulphate.

DR TAYLOR: The higher sulphate, and the uncertainty of

STILGOE M: And the uncer – you're back to your uncertainty issue.

DR TAYLOR: Well, there – there's more certainty with the latest affidavits of Mr Wells that all of it is – been liberated, and that is more likely to give more adverse

STILGOE M: All right.

DR TAYLOR: impacts.

390. Given the evidence of adverse impacts from both Ms Harrison and Mr Beutel covering timeframes of more than a decade, the ongoing concern of Dr Taylor in relation to potential blasting impacts, and the proximity of Stage 3 to sensitive receptors, the Court would recognise that a risk of ongoing impacts from blasting remains.

**The Applicant failed to call past employees to challenge the evidence of the mine impacts**

391. The only mine employee called by the Applicant was Mr O’Dwyer, who joined the mine in 2016 and had no direct knowledge of earlier events at the mine. He is the General Manager and Site Senior Executive of the Applicant.
392. Despite Mr O’Dwyer’s very senior role, his claim in evidence-in-chief that the Applicant had installed and would operate “more sophisticated monitoring systems” to address noise and air quality issues,<sup>421</sup> and his expression of great confidence in its ability to manage those impacts if Stage 3 proceeds, during cross-examination it became apparent that he had relied to a large extent on information simply provided to him by Clayton Utz, and that he did not have a detailed understanding of the history of mining at the site in relation to noise and dust issues:
- a) he had not verified his statement that conditions imposed by the Applicant reflected the recommendations of OCAA’s experts in the 2016 hearing, which turned out to be wrong and misleading;<sup>422</sup>
  - b) he had not made his own enquiries to check that a comprehensive record of correspondence between the Applicant and Ms Harrison was provided to the Court;<sup>423</sup>

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<sup>421</sup> O’Dwyer First Affidavit (Exhibit 16, NAC.0010) [108].

<sup>422</sup> T4-11, line 35 to T4-14, line 40.

<sup>423</sup> T4-19, lines 2–6.

- c) he had not made his own inquiries as to whether or not there were any monitoring reports and assessments that had been conducted by the Applicant's acoustic consultants that verified or otherwise Ms Harrison's complaints;<sup>424</sup>
  - d) he had not made inquiries into whether reports about the impacts of the mine on Ms Harrison's property referred to in the correspondence exhibited to his affidavit had been done.<sup>425</sup>
393. Nevertheless, Mr O'Dwyer fairly made concessions, including accepting deficiencies in blast management and air quality monitoring that had been done by NAC at Ms Harrison's property.<sup>426</sup>
394. Mr O'Dwyer's limited responses to OCAA's grounds concerning poor past conduct demonstrated a dismissive attitude taken by the Applicant to the issues of past conduct.
395. The Applicant did not call past mine employees to respond to the evidence of severe impacts from past mining operations. While Mr O'Dwyer explained that many people had left the company,<sup>427</sup> there are a number of other witnesses who could testify to the Applicant's conduct should such testimony be in the Applicant's favour.
396. For example, Laura Morris, a past environmental officer at the mine, was repeatedly referred to by Ms Harrison, including in relation to the following about a photograph exhibited as PAH-8, taken after a blast from the mine on or about 7 August 2007:

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<sup>424</sup> T4-19, lines 7–30.

<sup>425</sup> T4-19, lines 8–10.

<sup>426</sup> T4-19, line 45 – T4-20, line 25.

<sup>427</sup> O'Dwyer Second Affidavit (Exhibit 17, NAC.0021) [5].



**Photograph taken by Ms Harrison of mine blast on or about 7 August 2007**

397. Ms Harrison said about this photograph (PAH-8):

The coal dust drifting on top of the photo was coming towards my house. I remember the day that photograph was taken, Laura Morris from NAC was visiting us, and she witnessed the blast. Laura said words to the effect of: *“There’s black dust drifting in that blast. They shouldn’t be hitting through coal.”*

398. The Applicant did not call Ms Morris to respond to these allegations or produce any file notes or records from her about her dealings with Ms Harrison. No explanation was given as to why she was not called or these records produced.

399. An adverse inference should be drawn against the Applicant that Ms Morris’ evidence, and the evidence of other past employees of the Applicant, would not have assisted the Applicant’s case. The Court should more readily accept Ms Harrison’s evidence of the “unbearable” and “terrible” impacts caused by the mine and the cavalier and dismissive attitude taken by the Applicant to these impacts.

#### **Overwhelming direct evidence of terrible impacts caused by the mine**

400. The sheer volume and extent of Ms Harrison’s records of terrible impacts caused by the mine over many years and the many, many complaints she made to the Applicant are overwhelming.

401. Despite Ms Harrison's many complaints, the terrible noise, dust and fume impacts from the mine kept occurring and got substantially worse as the Applicant mined closer and closer to her home.
402. Ms Harrison was not alone in complaining about the noise and dust impacts of the mine. Her account is verified by others who have experienced like impacts, as disclosed by the registers compiled by OCAA which detail many of the complaints made to the Applicant and the Statutory Party about noise and dust, and Ms Harrison and Mr Beutel's numerous diary entries.<sup>428</sup> Ms Harrison's evidence of her distressing lived experience is corroborated by the complaints made by others, and verified by Dr Taylor.
403. Understandably, Ms Harrison started to complain less towards her date of departure from Bremar as "I get nowhere when I ring [the mine]".<sup>429</sup> By mid-2010, she had reluctantly left her "dream home", the only interested purchaser in the circumstances being the Applicant.

**The Applicant has failed over many years to fix problems in the air quality modelling or validate the modelled results**

404. The Court does not need to resolve the differences between Dr Taylor and Mr Welchman's different models as even on the most favourable assumptions and modelling for the Applicant, in Mr Welchman's JT1B (7.5Mtpa) and JT1C (5.1Mtpa) modelled scenarios, exceedances of the air quality limits are still expected to occur without further adaptive management measures.<sup>430</sup> This remains the case even for limited activities in Manning Vale East pit at night (JT1D).<sup>431</sup>

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<sup>428</sup> Appendix 3 – Chronology of Air Complaints.

<sup>429</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [255].

<sup>430</sup> JER Air 2021 (Exhibit 24, NAC.0126) pp37-39.

<sup>431</sup> JER Air 2021 (Exhibit 24, NAC.0126) pp37-39.

405. Mr Welchman maintained the view he expressed in the 2016 hearing that there is a high risk of exceedances of air quality limits without the adaptive management system in place.<sup>432</sup>
406. While the Court does not need to resolve the differences in the models, the substantial differences in the modelling results presented by Dr Taylor and Mr Welchman are illustrative of the multiple uncertainties in the modelling.<sup>433</sup> Great uncertainty also remains as to the predicted extent of exceedances of air quality limits, despite the Applicant having had many years to update and validate the EIS modelling, and optimise the monitoring system using onsite data.
407. Unlike in the usual case, the model is not just being used to assess impacts. Given that exceedances are predicted to occur without adaptive management, the modelling is being used to decide where monitors need to be located to protect residents from exceedances. As Mr Welchman conceded:

MS FORSYTH: All right. You – just finally on that point, then, do you acknowledge, however, that now having seen that met data, it has led you to change your views about the appropriateness of the location of the monitoring stations?

MR WELCHMAN: Somewhat, for some locations. Yes.<sup>434</sup>

408. The Applicant did not update the EIS air quality modelling in recent years with meteorological data collected from the properly installed (10m) meteorological monitoring station installed on the mine site in 2019.
409. In the 2016 hearing, Mr Welchman had disagreed with Dr Taylor that more monitoring was needed on the mine site to account for less favourable local conditions<sup>435</sup> and he disagreed with Dr Taylor's extrapolation from the onsite data (during the 2016 hearing) that found lighter wind speeds on the mine site. However, Mr Welchman accepted during cross-examination in the 2021 rehearing that he "didn't get that right" in 2016.<sup>436</sup> The onsite meteorological

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<sup>432</sup> T7-73, lines 1–5.

<sup>433</sup> As Dr Taylor recognised at T7-50, lines 19–28.

<sup>434</sup> T7-55, lines 7–11.

<sup>435</sup> T7-50, line 41 – T7-51, line 1.

<sup>436</sup> T7-51, lines 1–30.

data that was provided to him as a result of Dr Taylor's request led Mr Welchman to change his views on the appropriateness of the location of the monitoring stations.<sup>437</sup>

410. Mr Welchman stated he had not done the modelling of lighter wind speeds that have now been discovered to exist on site at least through the 2019 meteorological data. Even without having done that modelling, he recognised “lower wind speeds may produce, on balance – or on all things being equal ... higher concentrations” of dust emissions going further out from the mine than was modelled.<sup>438</sup> However, he insisted that not everything else was equal because he adopted different emission rates to those used in the EIS and adopted by Dr Taylor:

MR WELCHMAN: I – I haven't done that modelling. I don't know. I would think that whilst there may be lower – lower wind speeds may produce, on balance – or on all other things being equal I mean, higher concentrations. The concentration 40 downwind is proportional to the emission rate so if the emission rate goes down because of lighter winds then I'd also expect there to be a reduction in – in – in dust level.<sup>439</sup>

411. It is significant that Mr Welchman has not done the modelling based on the lighter wind speeds, nor has he been asked to do so by the Applicant. Mr Welchman said he thought that the 10m data would have been suitable to undertake modelling.<sup>440</sup>
412. All the Court now has before it is some EIS modelling (which is wrong on any view due to the lower dispersion) and modelling done for a single year of the mine (namely the nominal 2019 year) based upon Dr Taylor's extrapolated data from the 2m onsite meteorological station, modified with various different factors and scenarios.
413. There are already uncertainties in the model. For a project of this size, with the degree of impacts expected, it ought to be fundamental that an Applicant would

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<sup>437</sup> T7-55, lines 5–11.

<sup>438</sup> T7-47, lines 35–45.

<sup>439</sup> T7-47, lines 38–44

<sup>440</sup> T7-16, lines 37–38.

present to the Court a model of predicted exceedances based upon appropriate meteorological data.

414. The meteorological data was only provided to Dr Taylor on the morning that he went into conclave with Mr Welchman.<sup>441</sup> Until then, the Applicant has refused to provide the data on the basis that it was irrelevant and that it would be oppressive to provide it.<sup>442</sup>
415. This was despite the fact that Mr Welchman had,, prior to conclave, and prior to Dr Taylor being provided with the data:
- a) been given the data, had looked at it and had come to some conclusion about weather conditions based upon that data;<sup>443</sup> and
  - b) discussed with the Applicant’s solicitor that wind conditions were lighter because he considered that it was a ‘relevant consideration’.<sup>444</sup>
416. The fact that the Applicant briefed Mr Welchman with the data but refused to brief Dr Taylor with the data early (and of its own volition), once again, is a sign of its lack of transparency.
417. Mr Welchman’s modelling uses higher emissions rates than the EIS and Dr Taylor’s modelling (both of which use the NPI rates). Mr Welchman relies upon less conservative rates, derived from the ACARP study.<sup>445</sup> Dr Taylor agreed with the proposition that the NPI rates were conservative “most of the time”.<sup>446</sup> Equally, however, he said that:

the NPI says that – not to use wind speed dependence of dump trucks on overburden. It says use the constant factor, because a 5 study [indistinct] study said that the wind speed dependent factor was underestimating the emissions.<sup>447</sup>

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<sup>441</sup> T7-54, lines 45–47.

<sup>442</sup> *New Acland Coal Pty Ltd v Oakey Coal Action Alliance Inc. & Ors* [2021] QLC 29 at [86].

<sup>443</sup> T7-52, lines 6–31.

<sup>444</sup> T7-53, lines 30–50; T7-54, lines 22–27.

<sup>445</sup> T7-29.

<sup>446</sup> T7-31, line 23.

<sup>447</sup> T7-34, lines 4–7.

418. Dr Taylor was right to use conservative rates when it comes to modelling air emissions.
419. The Applicant also failed to validate the modelling results with on-site testing, which could have been used to reduce uncertainty and optimize the monitoring network. Dr Taylor pointed out in cross-examination that the uncertainties in the modelling could have been reduced and the monitoring network optimized if data from monitoring at the mine had been used to correlate the model. He said:

As I say, from my perspective the JT1 is the modelling that should be used. Yes, there's going to be uncertainties in that, but from trying to understand where the impacts are likely to be, from the detail we have – ideally it would've been good to have a good set of Acland data and some good monitoring and other details so that – and activity data so that you could actually correlate the model with some information and have a good perspective of how it performs, and then you would've been able to optimise the monitoring.<sup>448</sup>

420. That comment is consistent with Dr Taylor's conclusion in the JER Air 2016:

### 3.2 Additional monitoring requirements – PM10

...

(nn) If John Taylor were to re-model the project, he would recommend the use of contemporaneous modelling incorporating site based meteorological and air quality monitoring data to provide an improved representation of New Acland operations and site conditions. Such an approach would reduce the uncertainty in relation to site emissions and meteorology, and provide improved veracity to the EIS assessment.<sup>449</sup>

[emphasis added]

421. The fact that such information could have enhanced the veracity of the air quality assessment was a matter of common ground in 2016:

The experts agree that continuous, contemporaneous site based meteorological and air quality monitoring was not available for incorporation into the EIS air quality assessment. The experts agree that if such information were available it could have enhanced the veracity of the

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<sup>448</sup> T7-34, lines 40–46.

<sup>449</sup> JER Air 2016 (NAC.0050) p 29.

air quality assessment and provided an improved foundation on which to develop the reactive management responses.<sup>450</sup>

422. Yet, even though it has had 6 years to do that work, the Applicant has failed since 2016 to:
- a) correct the EIS air quality modelling (either through further work by Mr Welchman or anyone else);
  - b) incorporate the met data from the mine site itself;
  - c) validate the modelling results with mine data to reduce uncertainty and optimize the monitoring system.
423. These failures demonstrate the Applicant is disinterested in rectifying deficiencies in its air quality modelling or validating the modelled impacts through on-site testing.
424. The Applicant's disinterest and lack of diligence in failing to remove errors and reduce uncertainties in the air quality modelling and predictions of impacts on surrounding neighbours further erodes the confidence the Court may have that the Applicant will diligently implement the complex adaptive management system it proposes to manage air quality impacts if Stage 3 proceeds.

### **High risk of future exceedances**

425. If Stage 3 was to go ahead, there would be a high risk that dust from mining activities would exceed air quality limits for the following reasons:
- a) Even on the basis of the modelling in the EIS, which is deficient, the predicted concentrations exceed air quality limits.<sup>451</sup> Those predictions assume all typical dust mitigation measures have already been applied.
  - b) Mr Welchman's "adjusted" model results show likely exceedances even assuming:
    - i) mine production is limited to 5.1Mtpa; and

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<sup>450</sup> JER Air 2016 (NAC.0050) p 2-3.

<sup>451</sup> See Table 2 of the JER Air Quality (Exhibit 24, NAC.0126) p 13.

- ii) minimal operations in Manning Vale East pit during the night.<sup>452</sup>
- c) The only way in which the high risk of exceedances can be reduced is through adaptive management, which would effectively mean the progressive shut down of plant and equipment, such as minimal operations in Manning Vale East pit during the night (which are not required by the Applicant's proposed conditions and are merely a statement of the Applicant's future planned operations).
- d) Due to the deficient modelling, and lack of subsequent analysis, it is unclear to what extent adaptive management is required and equipment would have to be shut down.
- e) Adaptive management such as shutting down equipment and limiting operations has always been available to the Applicant but the evidence of Ms Harrison shows that the Applicant has been unwilling to implement such measures. The Applicant has not sufficiently acted to avoid nuisance to its neighbours as it progressively mined closer and closer to Ms Harrison's home in 2006-2010, with the impacts increasing in severity until they became unbearable for her.
- f) Adaptive management, and avoidance of the high risk, would be completely dependent on the Applicant acting diligently. This would require the Applicant to not only shut down equipment as needed but also ensure that, throughout the life of the mine, the monitors were located where they need to be to protect all residents potentially exposed to exceedances. To avoid the risk of rising dust levels, the Applicant must take responsibility instead of eschewing responsibility on the basis that some other activity may be responsible for them.

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<sup>452</sup> JER Air Quality (Exhibit 24, NAC.0126) [50]; Mr Welchman repeated this view in oral evidence: T7-46 lines 35-38.

### **Conclusions in relation to air quality**

426. Ms Harrison's uncontested evidence of terrible impacts of dust and fumes that progressively got worse over years despite repeated complaints and monitoring should be accepted by the Court.
427. The evidence indicates that if Stage 3 is approved there is a high risk that the air quality limits will be exceeded at local residences over the years of operation of the mine.
428. The Applicant, in effect, asks the Court and the community to “trust us” and believe “we will do better in the future,” but it has not demonstrated that it ought to be trusted. To the contrary – the impacts it caused to Acland community members, which got progressively worse over time despite numerous complaints – show the Applicant cannot be trusted to implement adaptive management to avoid causing nuisance to surrounding residents.

### **ASSESSMENT AGAINST THE STATUTORY CRITERIA SUPPORTS A RECOMMENDATION FOR REFUSAL**

429. OCAA’s primary case is that the combination of the evidence of the Applicant’s poor past performance and the likely future impacts of the mine in terms of noise and dust provides the basis for the Court recommending refusal of the applications. The reasons for that are summarised in this section after briefly summarising the statutory framework and relevant considerations along with relevant case law.
430. Subsequent sections of these submissions address the conditions that the Court ought to recommend if Stage 3 is approved.

#### **Statutory framework**

431. The Court is required to assess:
- a) the MLAs against the statutory criteria stated in s 269(4) of the MRA; and
  - b) the EA Amendment Application against the statutory criteria stated in s191 of the EPA.

432. Fraser JA (with whom Morrison JA agreed) observed in *Coast and Country Association of Queensland Inc v Smith & Ors* [2016] QCA 242, at [46]-[47], that s 269(4) of the MRA and the then s 223 of the EPA (which was renumbered and materially identical to the current s 191 of the EPA):
- a) “leaves it to the Land Court to decide what, if any, weight should be given to each of the matters set out” in those sections;
  - b) “is not qualified by any requirements about the manner in which it must consider the identified matters or about the weight to be given to any of the relevant considerations”; and
  - c) “Section 5 [of the EPA] obliges a person upon whom a function or power is conferred to perform that function or exercise that power in the way that best achieves the object of the Act” of protecting the environment while allowing for ecologically sustainable development (**ESD**).
433. Balance and perspective are required in assessing the applications in light of all factors<sup>453</sup> and holistically;<sup>454</sup> however, the balancing and holistic exercise is not simply a matter of concluding the economic benefits of the mine to the Applicant and the jobs the mine creates outweigh the harm to the local residents. The Court must be satisfied that the environment of local residents will be acceptably protected while allowing for ESD as required by ss 3 and 5 of the EPA. This is especially the case now that the *Human Rights Act 2019* applies to the Court’s consideration.<sup>455</sup>
434. While a finding that the applications fall short on one criterion does not *necessarily* determine that the mine should be refused,<sup>456</sup> in an appropriate case the Court *may* refuse an application based principally or solely on one criterion.

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<sup>453</sup> *Re Pickering* [2020] QLC 9 at [6] (Stilgoe M).

<sup>454</sup> *Metroof Limestone Pty Limited v Rockhampton Regional Council & Anor* [2019] QLC 49 at [39] (Stilgoe M).

<sup>455</sup> *Waratah Coal Pty Ltd v Youth Verdict Ltd* [2020] QLC 33 at [17]-[92] (Kingham P); and *Cement Australia (Exploration) Pty Ltd v East End Mine Action Group Inc (No 4)* [2021] QLC 22 at [381]-[405] (Macnamara M).

<sup>456</sup> *Skilton v Longegran* [2019] QLC 28 at [2] (Stilgoe M).

435. In opening, OCAA referred to Kingham DP's decision in *Papillon* in support of OCAA's case that past conduct, even if not illegal, and even if no action has been taken by a regulator, may still be relevant to the question of whether the conditions proposed are appropriate to regulate the activity going forward. We submitted that it is consistent with Member McNamara's decision *Cement Australia (Exploration) Pty Ltd & Anor v East End Mine Action Group Inc & Anor (No 4)* [2021] QLC 22 (*Cement Australia*) and in particular that part of the judgment where His Honour summarised the submissions of the applicant in that case as to the scope of past performance and said:

[254] The applicants say the 'true test' is to consider conduct, if it is relevant, with a view to assessing the risk of compliance with future mining lease conditions or environmental authority conditions or the type of conditions that may be necessary. In my view that is the correct approach.

...

436. OCAA does not concede that the test is necessarily so confined. Past performance under the MRA may be a reason for refusal even if there is not a risk of non-compliance in the future. The Court may simply find that an applicant is not "deserving" of the privilege to mine the resources of the Crown under the MRA.

437. However, Member McNamara was correct to say that the Court can have regard to past conduct in considering the risk of compliance with both mining lease and EA conditions. That reasoning is equally applicable to both the MRA and the EPA criteria when it comes to a brownfield expansion. In such a case, past impacts may be good evidence of likely future impacts. Here, that is especially the case because the mine is proposed in the same place, with the same or a larger annual production rate, using largely the same equipment, by the same people, in proximity to the same receptors.

438. So, in that sense, evidence of what OCAA's grounds call past performance and past conduct on noise and air is actually relevant to the very fundamental question of what the noise levels and air emissions will be of the expanded mine, and of what might go wrong with the 'mitigation' measures that are proposed, and to the crucial question of whether the Applicant will apply the diligence necessary to meet the new, lower, air and noise limits.

439. That is, past conduct (and the results of that conduct) is relevant to the core assessment under both the EPA and the MRA, not only under the past performance criteria, but also under other the other criteria such as the public interest criteria and the consideration of the likely impacts of Stage 3 on the receiving environment under s191 of the EPA and the ‘public interest’, ‘good reason’ and ‘adverse environmental impact’ criteria under s269(4) the MRA.

**The Court should recommend the applications be rejected and/or refused**

440. Within this statutory framework, given the evidence before the Court, OCAA’s principal submission is that the Court should recommend under s269(2) of the MRA and under s 190(1)(a)(iii) of the EPA, respectively:

- a) MLA50232 and MLA70002 be rejected based on the grounds stated in OCAA’s Amended Objection, namely:
  - i) the past performance of the applicant has not been satisfactory;
  - ii) there will be significant adverse environmental impacts caused;
  - iii) the public right and interest will be prejudiced; and
  - iv) good reasons can be shown for a refusal to grant the mining lease
- b) that the EA Amendment Application be refused on the grounds stated in OCAA’s Amended Objection, namely:
  - i) adverse impacts on the character, resilience and value of the receiving environment;
  - ii) approval would be contrary to the public interest;
  - iii) approval would cause material and serious environmental harm; and
  - iv) approval would be contrary to appropriate consideration and application of the environmental protection policies on noise and air.

441. The applications should be refused on these grounds because, based on the evidence presented during the hearing:

- a) The lived experience of the mine's neighbours over the its 20-year history has been one of persistent disruption and distress caused by the noise and dust impacts of this mine, which have resulted in hundreds of genuine complaints.
  - b) The Applicant has not demonstrated genuine concern for its neighbours or diligence in adapting to complaints over this period. On the contrary, the Applicant has demonstrated a continued disregard for compliance, even when its ongoing non-compliance was well known to it.
  - c) Despite the history of complaints and poor past performance, the Applicant seeks to somehow significantly *expand* its operations, including an approximate 50% increase from 2012 levels in the volume of coal extracted, under lower noise and dust limits.
  - d) The Applicant has not provided any updated modelling to demonstrate whether this will be possible.
  - e) The Applicant's experts concede that the only way it will be possible to comply with lower limits is to actively manage noise and dust impacts in real time.
  - f) The Applicant has not demonstrated the level of concern and diligence that would be required to make its proposed adaptive management regime work in practice.
442. In short, the applications should be refused because the Applicant's past performance and lack of diligence has shown it cannot be trusted to implement the complex systems required for the management of noise and air quality impacts from the mine to successfully meet the proposed EA limits and avoid terrible nuisance to the surrounding community. The Court cannot have confidence that the Applicant will implement the complex, real-time monitoring and adaptive management systems for noise and air quality that are essential to avoid exceedances of the EA limits required to avoid unreasonable impacts occurring to the surrounding residents.

## OCAA'S DRAFT EA CONDITIONS

443. As set out in the submissions above, OCAA's primary case is that the Court should recommend refusal of the applications; however, this section addresses the conditions that the Court ought to recommend if Stage 3 is approved.
444. The propositions in this section are without prejudice to OCAA's primary position that the Applications should be refused.
445. Unless otherwise stated, OCAA's comments refer to:
- a) the latest drafts proposed by the Applicant and the Statutory Party, as exchanged between the parties on 17-19 November 2021 pursuant to the Court's directions; and
  - b) OCAA's proposed EA is contained in Appendices 5A and 5B, which is substantially the same as the version it circulated on 18 November 2021 except where it has adopted changes proposed by the Applicant or the Statutory Party (which changes are highlighted in the document).

### **Stronger conditions are a necessary pre-requisite to any approval**

446. In view of the vast body of information before this court showing historical exceedances of conditions, and the Applicant's demonstrated reluctance to adopt measures that will support compliance and promote transparency, it is OCAA's position that, if Stage 3 is approved, the latest drafts of the EA proposed by the Applicant and the Statutory Party as exchanged between the parties on 17-19 November 2021 pursuant to the Court's directions are both insufficient to ensure appropriate protection from environmental harm as defined by the EPA, and in particular air and noise impacts.
447. OCAA submits that if the EA is approved, it should include strict and enforceable conditions that provide transparency and certainty to the community.
448. Sections 203-210 of the EPA set out the main tests for conditions on EAs. Section 203(1)(a) states that the administering authority may impose a condition if "it considers the condition is necessary or desirable."
449. The Statutory Party's model conditions for a mining activity state:

To meet the test of ‘necessary or desirable’ it is considered that a condition will meet this test if a demonstrable link exists to achieving the object of the EPA.<sup>457</sup>

450. The object of this EPA is:

To protect Queensland’s environment while allowing for development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends.<sup>458</sup>

451. The conditions in OCAA’s Draft EA have demonstrated links to achieving the objects of the EPA.

*Past conditions were uncertain and it is imperative that the mistakes of the past are not repeated*

452. OCAA has outlined above the failure of the wording of conditions for previous stages of mining to allow for effective enforcement of conditions, just one example of which is the mining of West Pit.

453. Dr McCosker (on behalf of the Statutory Party) recognised these historical deficiencies and indicated that the Statutory Party, at least, agrees that they should not be carried forward in any future mining approvals:

MS FORSYTH: Okay. Dr McCosker, just as a matter of general philosophy, why is it that you’re seeking to – firstly, are you seeking, by some of the changes that you have proposed, to – I suppose close some gaps and make sure that there are no loopholes in the conditions of approval?

DR MCCOSKER: Yes. I suppose what I’m trying to do is make it transparent as to what – what the conditions are about and, obviously, maybe the wording needs to be a little bit – a bit of wordsmithing is still to happen. But yes, to make it black and white what the conditions are, but also to – so that no future complaints or – or nuisance of air and noise occurs to sensitive receptors, both east and west of the mine and at Acland, occur into the future. So – and I suppose the process whereby a complaint happened and then monitoring happened after the event, to me, doesn’t – didn’t really help solve the problem and in some ways perpetuated the problem. So I – that’s the reason for my – what I have thought about the conditioning – or the conditioning I have proposed.<sup>459</sup>

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<sup>457</sup> Department of Environment and Science (2017) Guideline Mining Model mining conditions p 1.

<sup>458</sup> EPA s 3.

<sup>459</sup> T9-32, lines 18–30.

454. OCAA welcomes this acknowledgement by the Statutory Party but contends that the Applicant's Draft EA and Statutory Party's Draft EA perpetuate these issues in a number of ways. Given the poor history of the Applicant in managing their mining operations and tracking performance (a fact that has been acknowledged by both the Applicant and their experts),<sup>460</sup> future conditions cannot leave matters to chance.
455. Conditions must be unambiguous. Elements of the monitoring and management system that are vital to the successful operation of those systems cannot be left to the discretion of the Applicant by leaving the work to management plans over which the Statutory Party currently has little to no influence. And the system must be transparent – to both the Statutory Party and the community, ensuring that the Applicant is held accountable for the impacts of their operations.
456. During the course of this matter, the Applicant has agreed through its comments on the McCosker Draft EA that it would be appropriate for the Statutory Party to approve a number of management plans. To date this proposal has not been accepted by the Statutory Party.
457. In this regard, it is concerning that during cross-examination, Dr McCosker described the management plans as “the proponent’s plan of how they’re going to manage it”;<sup>461</sup> “it” being Stage 3. When pressed by the Applicant on this, Dr McCosker agreed “ultimately for it to be the proponent’s plan, which the proponent alone is responsible for”.<sup>462</sup>
458. The conditions should make it clear that it is absolutely the role of the Statutory Party to assess, be satisfied with and approve the content of management plans. Having clear conditions about that may avoid some of the deficiencies of the

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<sup>460</sup> See for example, Mr O'Dwyer's discussion of the TARP being ineffective from October 2014-October 2018 (T 4-30 line 11 to T 4-31 line 31), discussion of mine operations by the noise experts through various stages (JER Noise (Exhibit 19, NAC.0036) [65] - [96]), and acknowledgement by Mr Welchman it is not possible to draw any definitive conclusions about the likelihood concentrations of PM10 before that slowdown in night-time operations (T 129 lines 7-29)

<sup>461</sup> T9-15, lines 33–34.

<sup>462</sup> T9-16, lines 1–2.

plans that were previously developed for Stage 3 under the now set aside EA (**Proposed Management Plans**).

459. As an example, the Applicant's NVMP makes it clear that at the time of writing, the Applicant totally opposed any monitoring other than its own being used for compliance purposes:<sup>463</sup>

7. Protocol for Determining Exceedances of the EA Noise Conditions

Exceedances of the EA noise conditions can only be determined from the monthly compliance noise monitoring or any additional compliance noise monitoring requested by DES. As previously described, Condition F6 notes that performance monitoring required under that condition is not to be used for monitoring for compliance.

460. Given the evidence of Dr McCosker in these proceedings, the Statutory Party should be in a position to refuse any document that takes this approach.
461. Similarly, the Air Emissions Management Plan dated April 2020<sup>464</sup> contained a section 4 "monitoring review" that purportedly set out how condition B6 was to be implemented but failed to even identify that key purpose with any degree of clarity. We refer to the following exchange:

MS FORSYTH: Yeah. Now, is the primary purpose of that condition, in your view, to require the suitably qualified and experienced person to look at the location of those monitors and to establish whether or not they remain appropriate as surrogates – for want of a better description – for the sensitive receptors?

MR WELCHMAN: Yes, I believe so.

MS FORSYTH: All right. Now, you prepared a – you prepared the AEMP. Can I ask that that be pulled up, please? It's NAC.0043. And can we please turn to page 26. Thank you. Is this the part of the AEMP which deals with condition B6?

MR WELCHMAN: I believe so, yes.

MS FORSYTH: Can I ask you to have a read of that, bearing in mind the question I want to ask you, and the question is whether or not that makes it clear that what is being sought by that review is, really, an analysis of

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<sup>463</sup> See section 7 of the NVMP (Exhibit 39, NAC.0044) p 25

<sup>464</sup> See Table 1 of *Air Emissions Management Plan* purportedly approved by DES on 7 April 2020 (NAC.0043) pp 7-9

whether the monitors remain appropriate as surrogates to protect the sensitive receptors.

MR WELCHMAN: Well, I believe so, yes.

MS FORSYTH: And whereabouts does that come through, in your view?

MR WELCHMAN: Well, I – in – in addressing each of those points. For example, you know, the second-last document is – dot point is looking for consideration of future progression of mining activities over the next two years. We're looking at dust complaints, looking for identification of areas of improvement for dust management and – and – and performance.

MS FORSYTH: Where does it say there, though, that the review is really to be directed towards making sure that the monitors remain as surrogates for the sensitive receptor locations?

MR WELCHMAN: Well, the first – the leading sentence says:

As part of this review, the effectiveness of the monitoring network will be identified through analysis and – and identifying various things as a minimum.

MS FORSYTH: It could – sorry, I didn't mean to interrupt.

MR WELCHMAN: So I – the – the – to – well, sorry. I'm finished. Sorry.

MS FORSYTH: It could be clearer, couldn't it, that the whole purpose of this is to make sure that those compliance monitoring stations are located in positions whereby they are protective of sensitive receptors in the sense that if compliance is met at the 10 monitoring stations, then compliance will be met at the sensitive receptors.

MR WELCHMAN: I – yeah, I suppose it could be – it could be clearer.<sup>465</sup>

462. Having experienced the difficulties of obtaining data and enforcing conditions under the previous management plans, an approval role for the Statutory Party would provide an opportunity for those responsible for enforcement to ensure that the necessary data was being collected, and management arrangements put in place, to assist their investigations in the future.
463. Without this safeguard the Proposed Management Plans were deficient in material respects, and doomed to perpetuate the inadequate monitoring and management regime that has plagued this project to date.

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<sup>465</sup> T7-89, line 15 – T7-90, line 13.

464. While ensuring the Statutory Party has an approval role in management plans provides an additional layer of protection for the community, it is not a complete solution. Given the ‘complex’ and ‘sophisticated’<sup>466</sup> management regime that is required in this situation, Statutory Party officers or their consultants simply may not have sufficient technical knowledge across all relevant areas to adequately review the content of proposed management plans. This is another reason why it is vital that the key management systems identified by the experts in these proceedings, and that the Applicant contends will help to ensure the management regime will function as intended, are explicitly and unambiguously included in any conditions.
465. While the level of detail and certainty required for conditions varies, and detailed planning may be made the subject of management plans required under the conditions,<sup>467</sup> “the scope of the authorisation granted ... must be explicit and ... this requires conditions that are, to the extent practicable, unambiguous about what the Applicants are entitled to do.”<sup>468</sup>
466. In *Papillon*, Kingham DP (as the President then was) recommended refusal of an application for a mining lease and application to amend an EA based on past performance issues ventilated at the hearing and inadequate evidence to formulate appropriate conditions.
467. The facts here are similar to *Papillon*: it is not simply a matter of the community not trusting the Applicant to implement the project specified in the EIS. Here, there is 20 years of history of demonstrated and ongoing exceedances of conditions. More than 10 years have passed since the EIS was initially prepared. In that time, environmental standards and community expectations have changed, yet the Applicant has repeatedly demonstrated its unwillingness to make sufficient modifications to its management plans to actually resolve clear failures in their existing management systems. The Applicant’s current reluctance to accept the evidence before this Court on the need for stronger conditions

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<sup>466</sup> JER Noise (Exhibit 19, NAC.0036) [65] - [96].

<sup>467</sup> See, e.g. *MGT Minerals Pty Ltd v Dunn* [2020] QLC 5.

<sup>468</sup> *Papillon Mining and Exploration Pty Ltd & Anor v Maddock & Ors* [2003] QLRT 62 at [17] (Kingham DP).

suggests that its future commitment to adopt the relevant management measures without clear and specific direction in the form of strict and specific conditions is also questionable.

468. The demonstrated inability of the Applicant to meet past conditions, and the risk to the community posed by the imposition of uncertain conditions means that in this case, the Court must go further and leave no room for doubt as to the meaning and intent of any EA conditions for Stage 3.
469. Given the impacts already suffered by the Acland community, it is imperative that the mistakes of the past are not repeated.

*No good basis has been provided for not including OCAA's proposed conditions*

470. The Applicant outlines its estimate of the costs of the additional monitors sought by Dr Taylor, with the implication that this would be an unreasonable burden on the Applicant.<sup>469</sup> However, Mr O'Dwyer ended up conceding that appropriate mitigation is just a cost of doing business:

MS FORSYTH: Now, your recent affidavit affirmed yesterday includes some costings that have been done in relation to the additional monitors that are proposed by Dr Taylor – some proposed jointly by Dr Taylor and Mr Welchman?---Yes.

And can I just ask you in the context of – firstly in the context of Mr Fahrer's economic report for this project, firstly – can you identify, Mr O'Dwyer, the total product coal to be produced from the mine is approximately 84 megaton?---Yes, that's correct.

And would it be correct to say that has a total value of approximately \$8.6 billion?---Can't tell how much it's worth. It would be dependent on the market. But it would have quite a value, yes.

Can you give me any type of ballpark figure?---No.

Okay. You've got – okay. Can you answer these questions, then – is the average price approximately \$102 per tonne?---Over a period?

At present?---Present – the price varies, but the price would be over \$100, I would say, yes.

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<sup>469</sup> Affidavit of David Patrick O'Dwyer affirmed 1 November 2021 (Exhibit 18, NAC.0129) [14].

Okay. And forecast for the life of the mine – \$102 per tonne – I think that’s from Mr Fahrer’s economic report. Are you able to confirm that?--- [indistinct]

MR CLOTHIER: I think he should be taken to it because I don’t think it is Mr Fahrer’s [indistinct]

MS FORSYTH: Okay. Look, I can – we can make submissions about all that, and if this witness is unable to provide even a ballpark figure of the value of the total product coal over the life of the mine, then I can’t ask any more questions about that, but what I can ask is in terms of profits, this mine has a significant advantage over others because about 97 per cent of the stage 3 land is royalty-free because of the tenures. That’s correct, isn’t it?---I cannot confirm the 97 per cent, but there is a large portion of it is, yes.

Over 90 per cent?---As I said, I can’t say without having a look at some data.

And that would be one reason why this site is favourable for the applicant to mine on notwithstanding the relatively close proximity of sensitive receptors?---That would be one reason, yes.

And it’s a cost of doing business, isn’t it, when one has density of receptors in close proximity, one – which are a constraint on operation, that putting in place appropriate mitigation – well, as I say, it’s just a cost of business, isn’t it?---It would be considered a cost of business, yes.

And you’re not suggesting that the figures that you’ve included in your affidavit affirmed yesterday are going to prevent this mine from going ahead economically, are you?---I would say they wouldn’t prevent the mine going ahead economically, no.<sup>470</sup>

471. To the community, these management measures aren’t just the cost of doing business – they are the cost of mining so close to local residences and impacting on those neighbours’ quality of life.
472. The cost to the Applicant of the management measures proposed if Stage 3 is approved are legitimate business expenses designed to ensure appropriate operations. In OCAA’s submission, if the Applicant cannot afford to implement these measures, it can not afford to mine at Acland.

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<sup>470</sup> T4-50, line 13 to T4-51, line 15.

### **Avoiding environmental harm and nuisance**

473. In OCAA's submission, avoiding environmental and community harm to the greatest extent practicable should be a key driver in the formulation of conditions in any EA. Only once impacts have been avoided to the maximum extent possible, should mitigation and management measures be required to minimise and offset any remaining impacts.
474. The parties are agreed that the conditions which applied during Stage 2 were not sufficient to avoid environmental harm and nuisance. This is evidenced through agreed strengthening of noise and dust limits and some requirements for increased monitoring and reporting.<sup>471</sup>
475. However, in OCAA's submission, the conditions proposed by Applicant and the Statutory Party will not ensure adequate protection of the environment or quality of life for the community. Further changes are required if there is any hope of those protections being afforded.

*There should be no ambiguity about where mining can occur*

476. For the purposes of this hearing, OCAA cannot and does not argue that the mining of West Pit was unlawful. However, as set out at paragraphs 139- 152, the Applicant's past conduct in mining West Pit and claiming authority to do so because the EA conditions did not expressly prohibit it:
- a) is directly relevant to OCAA's case that this Applicant has, in the past, used uncertainty in conditions to its advantage; and
  - b) demonstrates the need for the approvals to clearly delineate the activities which are permitted, including their spatial extent, as recognised in *Papillon* at [17] that:

the scope of the authorisation granted by the mining lease and environmental authority must be explicit and that this requires conditions that are, to the extent practicable, unambiguous about what the Applicants are entitled to do.

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<sup>471</sup> Draft Environmental Authority - Working Copy as at 10 November 2021 DES.0026, Table B1, Table F1 and Table F2.

477. The Compliance Activity Report for the noise nuisance allegation against the Applicant in mid-2018 (see paragraphs 249-259) states:<sup>472</sup>

The department is currently making enquiries into allegations of unauthorised mining activities on ML50170 and ML50216. Of relevance to the current noise investigation, it is considered that mining activities within the area known as West Pit and the southwest expansion of South Pit, are unlawful. Refer to Figure 2 for details. The implications of these activities on determining noise nuisance is detailed in Part D, 7 of this report.

478. This passage alone illustrates that there was sufficient uncertainty that the Statutory Party commenced an investigation into that issue.
479. That sort of uncertainty is highly undesirable from a compliance point of view and from a community point of view.
480. Neither the Statutory Party's Draft EA or the Applicant's Draft EA, if approved, provide sufficient delineation of the areas that could be lawfully mined in the future.
481. OCAA's proposed condition A2 and proposed new Figures 1 and 1a are essential to make:

the scope of the authorisation granted by the mining lease and environmental authority ... explicit and [to state] conditions that are, to the extent practicable, unambiguous about what the Applicants are entitled to do.<sup>473</sup>

482. Evidence from both the noise and air quality experts in this hearing made it clear that modelling (the EIS modelling and the subsequent noise modelling done by SLR referred to in the NVMP, and the air modelling done by Dr Taylor and Mr Welchman in the JER Air Quality) was done on the impacts arising from Stage 3 from activities in the pits and overburden areas described in the various figures

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<sup>472</sup> Compliance Activity Report Pre-Evaluation, Compliance Evaluation, Post Evaluation and Enforcement Response (Exhibit 39, OCA.0157) pp 10, 37 (Fig 2).

<sup>474</sup> See for example Coordinator-General, New Acland Coal Mine Stage 3 project Coordinator-General's evaluation report on the environmental impact statement (2014), Figure 2.1, p 2 (Exh 39; EHP.0016); AEIS Chapter 5-1 Figure Figure 5.1.2-C - Overall Disturbance Footprint.

- in the EIS and CG Report.<sup>474</sup> It is this modelling that the Court must then rely on to consider the impacts of Stage 3 on the environment and the community.
483. If mining occurs outside these areas, the Court can have no confidence that the EIS accurately predicts the impacts of the mining and no confidence that the proposed management measures will achieve the stated outcomes.<sup>475</sup>
484. However there remains a very real risk that this is what could occur. Under cross-examination, Mr O'Dwyer made it clear that without specific limits the Applicant considers it would be able to mine anywhere within the mining lease:
- Forsyth: But you're not suggesting, are you, that for example, that whole area that's shown between the pink line and the creek – the blue line – that isn't shown as being mined, may in fact be mined in the future under this EA, are you?---
- O'Dwyer: Well, anything that's mined within the lease area needs to be mined under the conditions of the EA and I believe that a commitment has been made about mining within proximity to Acland but, you know, I understand that there is coal in the area and any coal mining that occurs within the lease boundary is under the – the limits of the EA.<sup>476</sup>
485. The Court has been presented with evidence showing the overall disturbance footprint on ML50232 and ML50216 and the maximum area required for pits, slope batters and out of pit dumps; the train loadout facility, the material handling facility, the Balloon Loop and the Haul road; and surface infrastructure, cumulatively impacting over 1,500 hectares.<sup>477</sup> To ensure that the impacts of Stage 3 reflect those impacts argued for in the proposal, the location of mining must be strictly limited to the identified size and locations.
486. OCAA's proposed condition A2 and proposed new Figures 1 and 1a are essential to make "the scope of the authorisation granted by the mining lease and

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<sup>474</sup> See for example Coordinator-General, New Acland Coal Mine Stage 3 project Coordinator-General's evaluation report on the environmental impact statement (2014), Figure 2.1, p 2 (Exh 39; EHP.0016); AEIS Chapter 5-1 Figure Figure 5.1.2-C - Overall Disturbance Footprint.

<sup>475</sup> T6-29, line 37 to T 6-31, line 39; T 7-15, line 24 to T 7-16, line 11.

<sup>476</sup> T4-59 lines 7-13.

<sup>477</sup> For the most recent estimate of areas see the Affidavit of Peter Scott McGown affirmed 12 November 2021 (Exhibit 37, NAC.0137).

environmental authority ... explicit and [to state] conditions that are, to the extent practicable, unambiguous about what the Applicants are entitled to do.”<sup>478</sup>

487. Relevant condition/s: A2, Figure 1, Figure 1a.

*Why a limit of 5.1Mtpa is appropriate*

488. Despite the attempts by the Statutory Party to clarify the extent of the mining activities proposed in the Stage 3 ML from at least February 2021 (outlined in Appendix 4), there remains uncertainty.

489. It is agreed between OCAA and the Statutory Party that it is appropriate to limit mining to 5.1Mtpa of product coal.

490. This recommendation by the Statutory Party arose after the expert evidence demonstrated that under the most optimistic scenarios considered by Mr Welchman in these proceedings, the Applicant cannot meet the proposed air quality standards at sensitive places 100% of the time, without adaptive management.<sup>479</sup>

491. This was an important concession and one that OCAA submits the Court should act on. But limiting mining to 5.1Mtpa, in conjunction with the proposal for minimal operations in Manning Vale East pit during the night,<sup>480</sup> does at least reduce the number of exceedances that can be expected at sensitive places.

492. At 7.5Mtpa, Mr Welchman modelled 58 exceedances without adaptive management at Mr Beutel’s home (based upon JT1B), with the maximum concentration being 78.5ug/m<sup>3</sup>.<sup>481</sup> With mine production limited to 5.1Mtpa, Mr Welchman found an expected 11 exceedances of the EA limits for PM<sub>10</sub> per year (with the maximum concentration being 58.4ug/m<sup>3</sup>).<sup>482</sup> A similar, significant,

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<sup>478</sup> *Papillon Mining and Exploration PL v Maddock* [2003] QLRT 62 at [17].

<sup>479</sup> JER Air Quality (Exhibit 24, NAC.0126) Table 5 and Table 6.

<sup>480</sup> JER Air Quality (Exhibit 24, NAC.0126) [50]; Mr Welchman repeated this view in oral evidence – T7-46, lines 35-38.

<sup>481</sup> JER Air Quality (Exhibit 24, NAC.0126) p 37, Dr Taylor’s modelled exceedances (based upon JT1) is: 96 exceedances, with the maximum concentration being 93ug/m<sup>3</sup>.

<sup>482</sup> JER Air Quality (Exhibit 24, NAC.0126) p 39 (Table 6).

reduction in modelled exceedances is apparent for other sensitive receptors, for example:

- a) At R15, the predicted number of exceedances fall from 17 to 6 (and the maximum concentration falls from 81.7ug/m<sup>3</sup> to 60.7ug/m<sup>3</sup>;<sup>483</sup>
- b) At R37 the predicted number of exceedances fall from 13 to 2 (and the maximum concentration falls from 72.5ug/m<sup>3</sup> to 55.4ug/m<sup>3</sup>;<sup>484</sup>
- c) At R38 the predicted number of exceedances fall from 19 to 2 (and the maximum concentration falls from 83.1ug/m<sup>3</sup> to 65.1ug/m<sup>3</sup>.<sup>485</sup>

493. Dr Taylor has not specifically calculated the reduction in the modelled number and extent of exceedances based upon a production rate of 5.1Mtpa. However, he did not take issue with the proposition, as set out above, that as a mathematical exercise the numbers would reduce based on a reduced production rate, albeit that the impacts of the reduction may not be distributed evenly at any point in time.<sup>486</sup>

494. Thus, on any view, a cap on production to 5.1Mtpa could be expected to reduce the likelihood of exceedances. (That does not detract from the need to manage the exceedances, noting the evidence of Dr Taylor regarding the uncertainties in the model, and the likelihood of exceedances depending upon where and how the Applicant mines.<sup>487</sup>)

495. Limiting production is not a restraint on the Applicant, nor will it impact the economic viability of the mine. This much is clear from the affidavit of Mr O'Dwyer, stating on behalf of the Applicant:

Under current planning, the Applicant does not propose to produce above the maximum of historical levels of production of approximately 5.1mtpa

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<sup>483</sup> JER Air Quality (Exhibit 24, NAC.0126) pp 38-39.

<sup>484</sup> JER Air Quality (Exhibit 24, NAC.0126) pp 38-39.

<sup>485</sup> JER Air Quality (Exhibit 24, NAC.0126) pp 38-39.

<sup>486</sup> T 7-28, lines 28-33

<sup>487</sup> T 7-28, lines 28-33; T 7-41, lines 24-41

of product coal... . However, production rates ... will continue to be reassessed throughout the life of the Expansion Project.<sup>488</sup>

496. Despite this, the Applicant now resists the Statutory Party's proposal to limit coal production to that level in any EA conditions.<sup>489</sup> OCAA submits that this position is untenable and the reluctance to commit to the limits in these circumstances demonstrates the Applicant's ongoing reluctance to commit to clear measures that have been shown to reduce impacts on the community and the environment.
497. Dr McCosker outlined a number of reasons for limiting coal production to 5.1Mtpa, including:
- a. The production rate of up to 5.1Mtpa was consistent with Mr O'Dwyer's evidence of what NAC currently proposes;<sup>490</sup>
  - b. The dust emission would be dramatically reduced if the mine was confined to 5.1Mtpa;<sup>491</sup>
  - c. Production at 7.5Mtpa would create greater emissions and were harder to control; there would be more exceedances as a result of that amount of coal production;<sup>492</sup>
  - d. Expert evidence in these proceedings, ;<sup>493</sup>
  - e. If the production was limited to 5.1Mtpa then it would significantly reduce the air emissions from the – from the mine;<sup>494</sup>
  - f. To take a precautionary approach to manage the mine in the future so that the history of exceedances at the mine isn't repeated.<sup>495</sup>

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<sup>488</sup> O'Dwyer First Affidavit (Exhibit 16, NAC.0010) [37].

<sup>489</sup> See Applicant's Draft EA.

<sup>490</sup> T8-6, lines 27-47.

<sup>491</sup> T8-6, lines 46-47.

<sup>492</sup> T8-7 lines 1-5.

<sup>493</sup> T8-7 lines 5-8; T9-16 lines 14-15.

<sup>494</sup> T9-16 lines 17-20.

<sup>495</sup> T9-17 lines 35-45.

498. In the event that the Applicant wishes to mine at higher levels in future, it is open to them to seek an amendment to the EA. This would require an application which would appropriately be accompanied by information that would provide the Applicant with an opportunity to demonstrate that they can, and have, managed air quality emissions at 5.1Mtpa to acceptable levels and are capable of limiting exceedances at higher production levels. This is not something that is demonstrated in the current evidence.
499. Until that has been demonstrated, the EA should not permit an unconstrained rate of extraction, given:
- a. the difficulty of the complex and untested at scale monitoring and adaptive management that the Applicant proposes;
  - b. the mine's long history of complaints even at current levels of production which are less than 5.1Mtpa;
  - c. the lack of validation of the model by real-time monitoring;
  - d. the proximity to sensitive receptors; and
  - e. the very low wind speeds (and hence lack of dispersion) that have been found by recent meteorological monitoring at the mine.
500. In this context, Dr McCosker's approach of limiting mining to 5.1Mtpa is entirely consistent with the precautionary principle, one of the principles of environmental policy stated in the standard criteria, which is a relevant consideration for the Court under s 191 of the EPA. And, to use the language in the EPA, a condition limiting coal production to 5.1Mtpa is "necessary or desirable"<sup>496</sup> if there is any chance at all of achieving the objects of the Act<sup>497</sup> (which, in OCAA's submission, there is not).
501. If the Court recommends approval, the Court should adopt Dr McCosker's precautionary approach and recommend that any EA conditions limit coal production to 5.1Mtpa (proposed new condition A2a).

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<sup>496</sup> EPA s 203(1)(a).

<sup>497</sup> Stated in s 3 of the EPA, to protect the environment (including human health and amenity) while allowing for ecologically sustainable development (ESD).

502. Relevant condition/s: A2a.

*Conditions must require the Applicant to demonstrate that harm is being genuinely avoided and minimised*

503. The repeated references in Mr Moore's monitoring reports to situations where compliance "could not be determined"<sup>498</sup> are an excellent, but by no means the only, example of the way that the previous EA has permitted mining without clear conditions that require harm to be avoided and the Applicant to be able to demonstrate that it has done so.

504. A key consideration in the development of any conditions is how the impact on sensitive receptors is measured and how compliance with limits is to be assessed. It is clear from the documents before the Court that the Applicant has historically sought to use ambiguity in the wording of the conditions to avoid responsibility for exceedances of noise and air quality limits in the conditions.

505. For example, in 2012 in response to a request from the Statutory Party to provide further information on noise, the Applicant stated:

At the request of the Administering Authority (AA), New Acland Coal Pty Ltd (NAC) provided available monitoring data on 4 September 2012 from the monitoring location nearest to the complainant's residence. This location identified as "Drillers" is inside NAC's mining lease ML50216 (refer to Figure 1). NAC considers that the monitoring data presented to the AA does not represent 'a sensitive or commercial place' and therefore is exempt from vibration limits stipulated in Schedule D Table 3. Monitoring data captured at this monitoring location is captured for the sole purpose of determining indicative effects of blasting in the monitoring location's localised area and is not per the AA's request. Thus, this data was not captured to demonstrate compliance for residents of Acland. Therefore, NAC does not consider that a non-compliance with condition D(9) of its Environmental Authority MIN100550507 (EA) has occurred.<sup>499</sup>

506. Similarly, when elevated noise was recorded in August 2012, the Applicant notified the Statutory Party, stating:

One noise monitoring location located on the boundary of NAC's mining lease 50216, and not considered to represent a sensitive receptor, recorded

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<sup>498</sup> See Table 1 of these submissions

<sup>499</sup> Letter NAC to R.Brown (Exhibit 39, OCA.0223).

a level above NAC's EA limit for the nominated period (40 dB(A) Laeq)) during the August 2012 monitoring period.<sup>500</sup>

507. And when the Statutory Party, wrote to the Applicant regarding an alleged breach in 2019, Clayton Utz on behalf of the Applicant stated:

It is important to note that the "noise limits" contained in the current EA (Schedule D - Table 1) are not compliance limits in the traditional sense. Rather, where monitoring is undertaken pursuant to the EA, condition D3 states that the holder will not be in breach of condition D1 if the limits are not being exceeded.<sup>501</sup>

508. In light of this history, it is important to remove any potential loopholes in any final conditions of consent and ensure that noise and air quality limits must be complied with at both monitoring stations and at sensitive receptors and places, as recommended by the Statutory Party. When asked why she supported such a requirement, Dr McCosker placed strong importance on the need to overcome the shortcomings of previous conditions:

It's based on the fact that you need to have the monitoring sites correlated with the sensitive places, and I just don't – I suppose I just find this – that, you know, requiring that you don't exceed a sensitive placement then you're not monitoring (sic) at it – then – and then you have to do – you know, you get a complaint. Then you do an investigation and do monitoring afterwards. It's all post-tense, and it actually won't confirm or not, really, at that real time that that exceedance occurred and caused the nuisance that it did.

Yes?---And so I just feel that it has to be a black-and-white system that if your correlated figure at your monitoring location that is not at the sensitive place is exceeded, then it's an exceedance.<sup>502</sup>

509. In explaining her reasoning for the wording of the Statutory Party's proposed conditions (conditions Ba and F1), which are supported by and expanded on by OCAA, Dr McCosker put it simply:

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<sup>500</sup> Exhibit 39, TMP.0074.

<sup>501</sup> Letter from CU to DES dated 26 July 2019 (Exhibit 39, OCA.0166).

<sup>502</sup> T9-19 lines 2-12.

It's to make sure that any monitor that isn't at a sensitive place is correlated to the sensitive place – that it is an accurate reading and you can determine compliance or not.<sup>503</sup>

510. The Applicant continues to resist a requirement in any EA to measure compliance at both sensitive receptors and monitoring location in toto.
511. The Applicant has noted that it would be necessary to develop correlation factors between monitoring stations and sensitive receptors. That is something that can be accommodated by any conditions and is envisaged by OCAA's proposed wording that focuses on ensuring all necessary correlations – including those to account for under-reporting of noise – are developed, regularly reviewed and updated as required (conditions B4, B6, F5 and F6a).
512. Relevant condition/s: Ba B4, B6, F1, F5 and F6a

*The range of parameters to be monitored must be comprehensive and predictive*

513. In the event of any approval, it is also important that the full range of noise and air quality impacts that have the potential to negatively impact on the community are conditioned and monitored.
514. The Court heard evidence from Mr Tardio that there is a real risk that noise impacts arising from mine noise associated with the rail line will not be distinguishable from general rail noise, which is subject to higher noise limits. OCAA has recommended wording that would provide clearer guidance is required on what constitutes mine noise and what constitutes rail noise (condition F1 and Table F1).
515. In relation to air quality, Dr Taylor provided extensive evidence on the need to have an appropriate array of air quality monitors that adequately capture the air quality limits that the Applicant will be required to comply with.
516. The range and type of monitors recommended by Dr Taylor was heavily informed by his review of the meteorological data and the implications this has for the impacts that are likely to be experienced by the community.

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<sup>503</sup> T8-11, lines 32-34.

517. In the JER Air Quality, Dr Taylor explained why his view on the range of air quality monitoring required has changed since the 2016 hearing so include additional monitoring required:

The conditions detailed within both Draft EAs were primarily developed based on the EIS air quality modelling undertaken with meteorological monitoring data (wind speed and direction) from the Bureau of Meteorology site at the Oakey Airport approximately 12 km south-southeast of Acland. It is John Taylor's opinion the Oakey meteorological data is not representative of site meteorological conditions for the Stage 3 Mine. Hence, the air quality modelling on which the Statutory Party's EA and Applicant's Draft EA were developed is not representative of the potential for adverse air quality impacts to occur...<sup>504</sup>

518. Dr Taylor provided a comprehensive list of additional monitoring locations (discussed further in [570]-[587]) and parameters that, in his view, should be included in any EA for Stage 3 (condition Table B1),<sup>505</sup> which have been largely adopted by the Statutory Party but a number of which the Applicant continues to resist.

519. In relation to his view on the need for additional PM<sub>2.5</sub> monitors, Dr Taylor said:

DR TAYLOR: It – it – one monitor would give some idea. We still don't know the background, and with lower wind speeds we're getting higher impacts. So there's a risk – more risk of exceeding them, the PM<sub>2.5</sub> objectives. And my view is that the three monitors across would give a better understanding now given the change in conditions than just having the single monitor, because you've still – with one monitor, you can't be clear on what is the mine produced and what is the coming into the site from – from other sources or regional sources.

520. It was suggested to Dr Taylor that PM<sub>10</sub> could act as a surrogate for PM<sub>2.5</sub> but Dr Taylor reiterated his view that the combination of lighter wind speeds and the fact that PM<sub>10</sub> and PM<sub>2.5</sub> are generated by different activities means that these air quality parameters must be monitored separately at multiple locations:

MS FORSYTH: Okay. Dr Taylor, what's the implications of that in terms of if you treat the dust because you've got a PM<sub>10</sub> – because your monitors are saying that your PM<sub>10</sub>s going up and you treat the dust, does that mean that you've dealt with the PM<sub>2.5</sub>?

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<sup>504</sup> JER Air Quality [55]

<sup>505</sup> JER Air Quality Table 8

DR TAYLOR: You haven't dealt with the PM2.5 to the same level because – unless you're actually stopping operations so then you're stopping the exhaust fumes. You're just dealing with the – like the dust emissions. So you reduce that element equivalently, but not necessarily the exhaust fumes [indistinct]

MS FORSYTH: So without the – sorry.

DR TAYLOR: Unless you actually stop machinery. So if you stop machinery, you will limit – you will also control the dust fumes. So it depends how you do your control.

MS FORSYTH: Okay. So how does the PM2.5 monitor help you manage emissions then?

DR TAYLOR: Are you asking myself or Simon?

MS FORSYTH: Yes. Dr Taylor, please.

DR TAYLOR: Well, it'll monitor the PM2.5. Primarily PM10 will still go before it. But the PM2.5 monitor gives an idea of the PM2.5 level. And another issue that I didn't mention earlier is also the annual average, which of PM2.5 is approximately a third of the PM10 level. So there's less leeway between the background PM2.5 level and the average criteria, which is also reducing – which is sort of in the future. So there's also managing that with the PM2.5 and understanding the upwind conditions. So the background level will also assist – understand how the mine's performing in relation to the annual average PM2.5 levels.<sup>506</sup>

521. One of, if not the Applicant's principal objection, to additional PM<sub>2.5</sub> monitoring appears to be that it "estimates it will cost approximately between \$80,000 and \$100,000 per additional PM2.5 monitor, resulting in a total expense of between \$400,000 and \$500,000."<sup>507</sup>
522. As discussed previously, OCAA does not accept this premise. Those costs are truly trivial for the Applicant based on its own economic evidence stated "the average of NAC's forecast prices over the life of the mine is US\$79", which converts to approximately AUS\$102/t, which means that:
- a) a mine producing 5.1Mtpa of product coal produces approximately:

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<sup>506</sup> T 7-108 line 35 to T 7-109 line 19.

- i) \$1,425,206 of coal a day; and
    - ii) \$520,200,000 of coal per year;
  - b) a mine producing 7.5Mtpa of product coal produces approximately:
    - i) \$2,095,890 of coal a day; and
    - ii) \$765,000,000 of coal a year; and
  - c) the total value of the 84Mt of coal proposed to be produced from Stage 3<sup>508</sup> is approximately \$8.6 billion.
523. It is telling that it uses such a fallacious argument to resist improving the monitoring of its impacts. Again, this demonstrates its lack of interest or diligence in avoiding impacts on the neighbouring community where the actions required have even a trivial impact on its profits.
524. Dr Taylor also provided evidence that the Current EA fails to adequately incorporate potential air quality limits associated with blasting activities – something that is particularly relevant for a mine that is in such close proximity to neighbouring residents. Given the evidence of the experiences of Mr Beutel in relation to blasting, OCAA contends that the Court should be minded to include specific conditions in relation to blasting occurring close to residents (conditions B12 and B13).
525. Relevant condition/s: Table B1, B12, B13, F1, Table F1 and , F9

*Tonal and impulsive noise*

526. Tonal and impulsive noise has been a key issue in this hearing.
527. OCAA's position is that until the correct correlation factor for tonal and impulsive noise has been calculated, the proponent should be required to apply an automatic addition of +4dB to monitoring data recorded in the real time

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<sup>509</sup> T 5-24, line 43 to T 5-25, line 34

monitoring system when sound with a tonal and impulsive character has been identified.

528. The Applicant's position is there should not be an immediate correlation made for tonal or impulsive noise – rather they maintain the requirement for compliance noise monitoring to include “the level and frequency of occurrence of impulsive or tonal noise and any adjustment and penalties to statistical levels” is sufficient.
529. The Statutory Party's position is also that a safety factor of +4dB should be applied.
530. Ultimately, Mr Elkin agreed with Mr Tardio that an appropriately precautionary approach would be to add an allowance of 4dB to any impulsive or tonal noise until that correlation was in place and approved by the administering authority.

MS FORSYTH: ...the issue I'm trying to explore with you is the next step in the process, which is once the software has identified that there's a tonal or impulsive noise, then the next step in the process is to determine whether or not it's mine-related or not mine-related. Has SLR been engaged to do any work to try to come up with some systems or some rules to identify whether it's mine-related or not mine-related?

WITNESS ELKIN: No. That's work still to be done.

MS FORSYTH: That's work still to be done. Okay. Now, is it work that should be done by a qualified acoustic consultant; an independent qualified acoustic consultant?

WITNESS ELKIN: It should be done by a qualified consultant. Hopefully, a qualified consultant is providing independent, competent advice.

MS FORSYTH: And when that work's done, should it be provided to and approved by the authority as a cross-check before the safety factors are no longer relied upon?

WITNESS ELKIN: That would be a robust system.

MS FORSYTH: And in terms of the level of safety factor that's required in the interim, do I take it that you're suggesting that a 4dB correction would be an appropriately conservative safety factor to include?

WITNESS ELKIN: Not at this point. Not without stage 3 data. I mean, from day 1 you could potentially choose that as a safety factor, yes. You could potentially do that. You may potentially have a smaller number. I don't know. You would need to go through and work that out.

MS FORSYTH: Well, my question is between the start of stage 3 and when the report is prepared that enables that – the doing away of the safety factor – what is the conservative correction that should be applied? Is 4 dB an appropriately conservative correction to be applied before the work is done?

WITNESS ELKIN: Based on the data we have at the present time, that would cover all instances of tonality or impulsivity. The frequency with which that occurs is very, very small, but to be bulletproof that would be the number. Correct.<sup>509</sup>

531. Relevant condition/s: F5, F9

*Areas of Interest and Correlation*

532. OCAA has recommended changes to conditions to ensure these factors are appropriately considered (conditions F6a and F9).

533. The Applicant's position is that it is not necessary to include a reference to the Areas of Interest in the EA.

534. The Statutory Party's position is also that it is not necessary to include a reference to the Areas of Interest in the EA.

535. The Court has heard extensive evidence on the failures of previous management systems to adequately correlate the monitors to account for the under-reporting of noise from the directional system, using the low pass filter. Much of the noise submissions address the issue of correlation. It is critical to the performance of the system. Yet, the issue is notably absent from the conditions.

536. Ensuring the accurate and up to date operation of AOIs will be vital to the mine's ability to minimise impacts from the mine. As discussed with Mr Elkin during cross-examination:

If you have an area of interest of an angle of, say, 40 degrees then you might have one correlation or calibration factor. You might add a, you know, a decibel here or two. But if you then expand that area of interest to, say, 90 degrees, you may need to apply a different correlation.

WITNESS ELKIN: You – you certainly may and the way that you would deal with that is to make certain that that area of interest was set up correctly before you did the correlation testing.

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<sup>509</sup> T 5-24, line 43 to T 5-25, line 34

MS FORSYTH: Yes.

WITNESS ELKIN: And then the correlation testing would have that inherent in it.

MS FORSYTH: Yes. And if you, for example, were mining in only one pit on one day, then you'd need to use the correlation factor for the area of interest that's been set up for that particular activity; correct?

WITNESS ELKIN: That's correct. That's correct.

MS FORSYTH: And if you were mining in another area of – in another pit on another day or another area of the mine and you were using a different area of interest, then you'd have to set up the correl – you'd have to use the correlation factor for that area of interest.

WITNESS ELKIN: That's correct<sup>510</sup>

537. In OCAA submission, the Applicant has failed to demonstrate it has any ability to operate in a way that would support this ongoing updating of Areas of Impact, of its own volition. Therefore, strong conditions, which leave no doubt in the mind of the Applicant of what is required in this regard, are vital. OCAA proposes this is made clear in condition F6a.

538. Recommended condition/s:F6a and F9.

*Conditions must be able to respond to improved knowledge*

539. The parties' agreement on lower noise and air quality limits for Stage 3 is a clear consequence of improved scientific understanding of what constitutes unacceptable impacts, and the lived experience of residents in the vicinity of the mine.

540. It has also been recognised that new parameters require limits in any Stage 3 EA. For example, the Stage 2 EA had no limits for PM<sub>2.5</sub>, despite the acknowledgement from Dr McCosker that PM<sub>2.5</sub> is the key concern when it comes to health impacts from particulate matter:

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<sup>510</sup> T5-63 lines 13–26.

... I think that [PM] 2.5 is probably the key thing, because after all, that is the measurement that is most critical to human health. And I suppose that's what we're trying to protect – is people's health...<sup>511</sup>

541. The state of knowledge of these issues is unlikely to remain static over the life of the mine. In fact, it is already known that PM<sub>2.5</sub> limits are expected to strengthen from 2025.<sup>512</sup> It is appropriate that updated standards are reflected in the conditions in a timely manner. As can be seen by the lead time for the proposed changes to PM<sub>2.5</sub>, standards in the EPP Air don't simply change overnight. There is simply no reason why the Applicant should be given 2 years to implement the change once it is made in the State policy (condition A12, B1, B12).
542. The Applicant now appears to accept that the limits in Table B1 should change if changes are made to the standard in the EPP Air not only for PM<sub>10</sub> but also for PM<sub>2.5</sub>. However, this remains ambiguous as the Applicant has left the relevant "note" as a note in the condition on methodologies, rather than on limits, and does not seem to have deleted the footnote reference – leaving some debate as to whether the note only applies to PM<sub>10</sub>. Whether this is deliberate or not remains to be seen. Either way, it is unacceptable to allow that sort of uncertainty (condition Ba, B12).
543. Relevant condition/s: A12, Ba, B1, B12

### **Enforceability**

544. Earlier parts of this submission, from paragraph 125, referred to the problems created by the ambiguity in the Current EA. Those submissions are not repeated here but OCAA relies on them in proposing alternative wording to any conditions.

*Making clear that a breach may be established other than by the Applicant's 'compliance monitoring'*

545. It will be recalled, that one of the significant issues with the Current EA is that the Applicant argues that there must be monitoring requested by the Department

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<sup>511</sup> T8-9 lines 16–18.

<sup>512</sup> JER Air Quality (Exhibit 24, NAC.0126) [176].

of the Applicant in order to demonstrate a breach of condition D1. OCAA considers that a breach of condition D1 may be established by other means, including monitoring conducted at the request of an objector (such as that done by Mr Savery<sup>513</sup>) or monitoring done by the Department.

546. In terms of the philosophy behind any future conditions, Dr McCosker accepted that:

- a) the requirements in the EA for the Applicant to undertake monitoring to assess compliance is to make the EA in effect self-regulating, but not to undermine the primary conditions which require compliance with those limits; and
- b) those conditions requiring the Applicant to undertake compliance monitoring are not intended to be at the exclusion of third parties and DES being able to undertake their own compliance monitoring to determine whether or not the limits have been exceeded, should they choose to do so.<sup>514</sup>

547. Mr O'Dwyer's view<sup>515</sup> is that one way to avoid the obscurity of the past is to have strict air quality and noise limits which must be met regardless of whether there are complaints or a requirement for monitoring to be done. OCAA agrees. However, the Applicant has not accepted the changes that OCAA proposes in OCAA's Draft EA to make this crystal clear.

548. While there has been some movement on this issue during these proceedings, in OCAA's submission, the way both the Applicant and the Statutory Party currently propose to word the relevant conditions, if the Stage 3 is approved, leaves open the real risk of history continuing to repeat.

549. To avoid any doubt, OCAA's submits that the conditions should make it crystal clear that:

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<sup>513</sup> Beutel Affidavit (Exhibit 1, F.0075) GB-65, [35]; Harrison First Affidavit (Exhibit 3, OCA.0215), pp. 64-196, 270-330.

<sup>514</sup> T9-33 lines 12-28.

<sup>515</sup> O'Dwyer Second Affidavit (Exhibit 17, NAC.0021) p 4 [12]

- a) a breach of the limits (for example, in condition F1), however proved, is a breach; and
  - b) it is up to the Statutory Party as to what information they use to establish the breach of the limits (condition F1) and also any breach of the environmental nuisance conditions (for example, condition F3).
550. To give a practical example, a person may be able to establish ongoing and persistent breaches of the  $L_{Amax}$  conditions without the need to set out all the parameters required by condition F4.
551. OCAA proposes the following amendments to the conditions to make that plain:
- a) In relation to noise – explicitly wording in current draft EA conditions F1 and F3 to make clear that compliance is not dependent on compliance monitoring in condition F4, and references to the use of performance monitoring in assessing compliance in conditions F6 and F7.
  - b) In relation to air quality making it clear that Table B1 are limits, as well as monitoring requirements, and ensuring that the real time data that is collected is available to third parties conditions B4, B4a, B7 and B14).
552. Relevant condition/s: Table B1, B4, B4a, B7, B14, F1, F3, F6, F7

*Using the Real Time Monitoring Data for Compliance Purposes*

553. During the course of this hearing, the Applicant through its comments on the Original Draft EA and the McCosker Draft EA, and Statutory Party in the evidence of Dr McCosker<sup>516</sup> have agreed, that performance monitoring does have a role to play in compliance – albeit that the parties have not agreed on the appropriate way to incorporate this into any final EA.
554. OCAA proposes the following amendments to the condition to make it clear that the real-time performance monitoring data can be used by the Department to assess compliance:

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<sup>516</sup> T9-32, lines 34–41.

- a) Requiring provision of real time air monitoring data, including information on exceedances, for investigation by the administering authority (conditions B4a and B7); and
  - b) Including an explicit acknowledgment that performance monitoring, including audio data, can inform consideration of compliance and is appropriately used for determining when breaches may occur (conditions F2, F6 and F7).
555. The Applicant has now accepted that condition F6 could be changed to include the following words, which is a welcome first step:

However, the administering authority may consider data collected by the performance noise monitoring system to investigate compliance with Conditions F1 and F3.

556. However, the Applicant continues to resist the further information that OCAA considers is important, namely changes to conditions that would remove any doubt whether performance monitoring for air quality and dust can appropriately be used for compliance and the manner in which the Statutory Party and the community can access this data.
557. These are important changes for a range of reasons. The Court heard from Mr Tardio that without substantial enhancements to the noise monitoring regime, there is a significant risk that evidence of impacts will simply be missed. For example:

TARDIO: So my position on this is, you know, only having a compliance mechanism on the EA that requires 15 minute measurements is inadequate and the reason it's inadequate is we've likely got highly variable noise emissions for a couple of reasons. The first reason is we're going to have variation of what's actually occurring on the site, where it's occurring on the site. The receptors, in this case, are at, you know, reasonable distances where wind and temperature conditions would have an appreciable, if not significant effect on what noise levels actually occur at those particular receptors. Monitoring for only 15 minutes, you know, you could pick up anything. You might pick up best case scenario.<sup>517</sup>

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<sup>517</sup> T5-42, lines 4–13.

558. The need for performance data to be available in determining compliance was put simply by Mr Tardio:

And the reason for that is – and this has been a common experience of – of the residents, as far as I can tell, in looking at the history of this job – a complaint might be made at a certain time, and by the time that the authority gets out there to investigate it and run their own noise monitoring, the moment has, unfortunately, passed. It could be weeks; it could be months.<sup>518</sup>

559. In adopting some of OCAA’s proposed conditions, Dr McCosker said:

I suppose what I’m trying to do is make it transparent as to what – what the conditions are about and, obviously, maybe the wording needs to be a little bit – a bit of wordsmithing is still to happen. But yes, to make it black and white what the conditions are, but also to – so that no future complaints or – or nuisance of air and noise occurs to sensitive receptors, both east and west of the mine and at Acland, occur into the future. So – and I suppose the process whereby a complaint happened and then monitoring happened after the event, to me, doesn’t – didn’t really help solve the problem and in some ways perpetuated the problem. So I – that’s the reason for my – what I have thought about the conditioning – or the conditioning I have proposed.<sup>519</sup>

560. The distinction between performance and compliance data is particularly unnecessary in this case where one of the noise monitoring devices is certified as an instrument that can assess compliance. As detailed in the JER Noise by Mr Tardio:

the performance monitoring systems already include a fully NATA compliant Type-1 calibrated monitoring microphone. DT’s opinion is that DES should be able to use this monitoring data when investigating complaints, which would assist in determining if an unreasonable noise emission has occurred.<sup>520</sup>

561. It is inherently illogical to suggest that monitoring taken days, weeks or months after an event can provide any information on what happened during that event. When the performance management system is providing the only real-time data at the time of an exceedance event, it should be a tool available to third parties

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<sup>518</sup> T5-36, lines 37–41.

<sup>519</sup> T9-32, lines 21–30 (Dr McCosker).

<sup>520</sup> JER Air Quality [28]

to determine compliance. Ultimately, the Applicant's noise expert, Mr Elkin, conceded this was the case:

Forsyth: ...Mr Elkin, do I take it that you don't disagree with Mr Tardio that DES should be able to investigate the data as part of its consideration as to whether to take enforcement action?

WITNESS ELKIN: I don't disagree with that, under a general performance tool. No, I don't.<sup>521</sup>

562. While the dispute between the parties has narrowed in this regard, it remains the case that only OCAA's proposed conditions remove ambiguity from future consideration of how that data can and should be used.
563. In relation to noise, both the Applicant and the Statutory Party have accepted the recommendation from Mr Tardio to adopt seven days unattended monitoring as a management measure in the first 12 months (Table F2).
564. However, the mine is expected to operate for at least 15 years<sup>522</sup>. So while the first 12 months are important in terms of a set up and validation phase, there is still a need for the Statutory Party to be able to access the real time performance monitoring data to investigate the performance, and compliance, of the mine for the remaining years.
565. Relevant condition/s: B4a, B7, F2, F6, F7, Table F2

*The Limits and Key Components of the Program Must be Set in Stone*

566. The Applicant's Draft EA contains significant revisions to condition B6 which are not limited to just changes in monitoring locations – but purport to allow the whole monitoring “program” to be changed through a review process, including a review of the “suitability of the locations, types and parameters of the monitoring network”. That was never the intent of condition B6.
567. The Applicant seeks to be able to change fundamental conditions of the approval through this secondary consent type process – the wording chosen by the Applicant deliberately leaves room for the Applicant to be able to argue for

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<sup>521</sup> T5-39, lines 3–8.

<sup>522</sup> CG Evaluation Report (Exhibit 39, EHP.0016) p.5.

changes to things like air quality limits, frequency of monitoring, changes to the methodologies and so on – parameters that should be absolutely locked in through the EA.

568. As the location of mining changes, the impacts on sensitive receptors will vary and it would be necessary to ensure monitoring locations continue to act as appropriate indicators of impact. However, the same reasoning does not apply to the other parts of the monitoring program.
569. Wording of condition B6 must ensure that the key components of the monitoring program are set in stone.
570. Recommended condition/s: B6.

*The location of monitoring sites must reflect the sensitive receivers and allow the influence of the mine to be distinguished.*

571. There are two fundamental issues with enforceability when it comes to air quality monitoring:
- a) Making sure there are sufficient monitors and other data available (such as meteorological data (including directional wind data) and records of mine operations) to be able to determine whether the mine was a contributor to any exceedance; and
  - b) Making sure the monitors cover all potentially impacted receptors, and there is a transparent process for making adjustments if there is a need or desire to do so to account for the difference in location between the monitor and the residence.
572. Dr Taylor made the point that determining compliance with air quality limits is challenging but fundamental to any ability to undertake compliance is the availability of relevant data:

DR TAYLOR: Well, it's a difficult task to work it out. Like it depends on what monitoring you've got to show the exceedance. You know? It's additionally – they've only had what you'd term batch monitoring. So that just gets a sample over the whole period, whether that be the deposition monitor or their 24-hour average PM10 sampling. So you'd ideally like to understand the meteorological conditions that led to – well, co – coincident with the actual monitored impact and, ideally, you'd also like to know what activities were going on where at the time so you could understand the

potential for them to impact at the receptor or, you know, the – the monitoring location. But even if you have that, it still can be difficult to understand exactly where the dust levels are, especially if you’ve got limited monitoring sites.

For instance, you – if you’ve just got one monitoring site, you’re not quite certain what was coming into the – into the region and if you’ve – so, ideally, I would like to have a number of monitors so that you can understand what’s coming in and then what activities are contributing along the way. And then having meteorological conditions as well to understand how those activities – how the emissions from those activities may disperse – how they travel with the wind – but there’s also not just how they travel with the wind but how they mix in the atmosphere at various times of the day. The rate of mixing varies. So the – therefore, the concentrations can be higher or lower depending on how much – how much the mixing rate goes.<sup>523</sup>

573. For this reason, Dr Taylor has recommended,<sup>524</sup> and the Statutory Party now supports, a network of air quality monitors that ensures there are sufficient monitors to understand the impacts of each of the air quality limits that the Applicant would be required to comply with (discussed above) and the external factors affecting those monitors.
574. Both the Applicant and Mr Welchman continue to resist this.
575. However the evidence is clear, having monitors upwind and downwind is necessary to ensure the enforceability of the conditions by providing the data that is required to assess the mine’s contribution to air quality and noise impacts at sensitive receptors and/or monitoring locations.
576. The Court heard evidence of this in relation to PM<sub>10</sub> and PM<sub>2.5</sub> in particular:

MS FORSYTH: All right. Now, Mr Welchman, is it a difficult exercise to work out whether it’s PM<sub>10</sub> or PM<sub>2.5</sub> that’s in the monitors is coming from the mine or from other sources? Is that quite a complex process?

MR WELCHMAN: You need to draw things together. Yes. So you need to consider what might be around. You need to consider what might be happening at the particular time and the wind directions and so on. So yes, it’s fairly complicated.

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<sup>523</sup> T7-21, lines 5–24.

<sup>524</sup> JER Air Quality, Table 8.

MS FORSYTH: And when you have a monitor upwind and downwind, that can give you critical information to determine whether or not the levels are coming from the mine.

MR WELCHMAN: It can help. Yes. Yes. It's not definitive still but yes, it will help.<sup>525</sup>

577. In relation to TSP, Dr Taylor explained:

With the increased risk of elevated concentrations over a greater region when the local wind environment is considered, it is the opinion of John Taylor that additional sensitive receptor locations require installation of the standard monitoring configuration (realtime TEOM PM<sub>10</sub>, Hi-Vol TSP) to demonstrate compliance and assist with detection of elevated dust events and thus operational management of mining impacts.<sup>526</sup>

578. Dr Taylor expanded on this under cross-examination:

TSP, in particular, can decrease rapidly from the source. The other issue is from the Jondaryan monitoring of the coal loading facility. There were periods where TSP impacts were significant and didn't show up as PM<sub>10</sub> so it didn't – there were – there were TSP in – high levels of TSP that, yeah, that didn't have a significant component of PM<sub>10</sub>.<sup>527</sup>

579. Likewise, Dr Taylor's evidence that having multiple meteorological stations, including stations to the east and the west of the mine, will assist in that task was persuasive:

DR TAYLOR: At low wind speed the meteorological varies. Even with the model the meteorology, at different locations on the model, is different. So different locations in relation to the mine it can be different, particularly at low wind speed when terrain and thermal influences become significant so the additional sites that give additional information, so you get a better understanding that – of when conditions are consistent and when they're not consistent. So to get an understanding of when the – that if they're not consistent that although the wind may say dust should be going this way from the meteorological monitoring, because of the location of where you're operating, the dust may go in a different location or may actually change direction as it – as it travels with different drainage flows and different conditions and that's more prevalent in low wind speed conditions than in more moderate and high wind speeds conditions of the initial - - -

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<sup>525</sup> T7-111, lines 14–27.

<sup>526</sup> JER Air Quality (Exhibit 24, NAC.0126) [178].

<sup>527</sup> T7-113, lines 13–17.

MR CLOTHIER: And the impact of those changes will be picked up in the levels that are monitored at the monitoring stations.

DR TAYLOR: It'll be picked up at the monitoring stations, but it won't necess – if – if you see a dust level at a monitoring station here and the wind over here says it's going in that direction, when wind over here – then you think the wind's going in that direction so, well, it's not us. But, actually, the wind over here might be draining down this flow and this valley and that one's draining down another valley and so it can be you. So the idea is to say, well, actually, the meteorology varies across the site or it's different between our things. There's no consistency so we've got to be more aware of where potential dust impacts can come from.

MR CLOTHIER: Is your concern there to collect the meteorological data not such much to affect the day-to-day management but to assess compliance.

DR TAYLOR: No. It's for day-to-day management – for the actual – when it's impacting at a monitor, it's telling you when it's different.<sup>528</sup>

580. Under cross-examination, Mr Welchman conceded that he had previously been mistaken about the influence of local meteorological conditions<sup>529</sup> but maintained his view expressed in the JER Air Quality<sup>530</sup> that additional meteorological monitoring was not required. OCAA submits that the evidence of Dr Taylor, with his better recognition of the local environmental factors influencing air quality impacts, should be preferred (Table B1 with supporting changes in other conditions).
581. The Statutory Party has recognised the importance of ensuring adequate meteorological data collection on either side of the mine. When questioned on why she thought this was important, Dr McCosker explained:

I did feel that you do need to understand the externalities and east and west of the mine in terms of the – having additional meteorological data to be able to manage effectively and also to understand external input from east and west of the mine or any other direction, for that matter. And with only one meteorological station at Acland, I didn't think that would provide enough given that there is a low wind speeds and, you know, variation in

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<sup>528</sup> T7-96, line 25 – T7-97, line 8.

<sup>529</sup> T7-51, lines 15–26.

<sup>530</sup> JER Air Quality (Exhibit 24, NAC.0126) [71].

the – in the climatic – you know, the meteorological conditions – that they can vary and change from different – at different locations.<sup>531</sup>

582. A proper understanding of the meteorological conditions and the range of air quality parameters is important but insufficient. Equally important is the need for all potentially affected sensitive receptors to have a monitor located on site or be correlated to a monitor that accurately reflects the impacts they are likely to experience. In this regard, having a compliance monitor at R44 and R37 where exceedances are predicted is critical to enable the limits to be enforced (Table B1).

583. The Applicant contends that trend monitors would be sufficient for this purpose but under cross-examination Mr Welchman conceded:

MS FORSYTH: And putting a trend monitor there – if you just had a trend monitor there, it would be much harder to establish whether or not there had been compliance with the limits.

MR WELCHMAN: I don't think I – I mean, the compliance monitor is a – I suppose a recognised technique for establishing compliance. The trend monitor, though, I think would give you an indication, and a reasonably robust indication, of whether the level was compliant or not. And you would view it, I think, in conjunction with the other monitoring stations as well.

MR CLOTHIER: It would be far easier to demonstrate compliance with a compliance monitor than with a trend monitor, wouldn't it, Mr Welchman?

MR WELCHMAN: It would be more straightforward. Yes.<sup>532</sup>

584. The more limited range of noise monitoring locations also makes it important to ensure that the sites will detect noise that will impact on sensitive receptors in a way that ensures that noise can be managed and that exceedances can be investigated. OCAA has recommended a range of additions to noise conditions to ensure that these relationships are clear and enforceable (conditions F1, F5, F6, F6a, Table F2).

585. The Applicant's clear reluctance to maintain a comprehensive monitoring network means that any proposed changes must be subject to third party

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<sup>531</sup> T8-10, line 47 – T8-11, line 7.

<sup>532</sup> T7-95, lines 15–28.

scrutiny. This is the only way to provide the community with any confidence that an appropriate system of monitoring remains in place for the life of the mine.

586. As Dr Taylor put in the JER Air Quality:<sup>533</sup>

137. In John Taylor's opinion, his revised dispersion modelling indicates high potential for the NAC Stage 3 mining operations to have highly adverse impacts on air quality as a result of particulate emissions. Ultimately, unless dust mitigation is highly effective, the control of dust impacts is most likely to rely on the detection of dust events by the monitoring system. The Conditions outlined above provide for development of the Air Emission Management Plan (AEMP) by a suitably qualified or experienced person(s); however, following the initial development, it appears the annual review can be internal. Apart from the submission of the AEMP to the administering authority there is no requirement for either independent review of the plan or even review by the same suitably qualified or experienced person(s) that initially developed the plan.

138. Condition B6 solely relates to the review of air quality monitoring locations which must be undertaken by a suitable qualified person with the condition detailing what to consider which includes complaints and compliance. Again, apart from submission to the administering authority there is no independent review and no opportunity for the opinion of the sensitive receptor occupants to provide consideration of proposed changes.

139. The Conditions do not provide for any review or audit of data records. Data provided by NAC as part of this expert process contained anomalies.

140. While there is a complaint recording process that includes recording of detail of investigations, with the outcome submitted to the administering authority, the conditions do not provide for regular independent audit or review of the complaints. There is no requirement for review and audit of the complaint history and the resultant actions taken:

- The ability of the actions taken, abatement measures implemented, to be maintained in continuing operations of the mine, nor their effectiveness in managing adverse impacts as well as reducing complaints.

141. Apart from the submission of the AEMP and Review of Monitoring Locations to the administering authority, on generally a two-year basis, there is no requirement to provide reviews for independent analysis. The annual review of the AEMP appears to be a completely internal process.

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<sup>533</sup> Exhibit 24, NAC.0126.

142. The Conditions relating to the audit and review process, including modifications to the monitoring systems installed, rely on the Applicant's choice of suitably qualified and experienced person(s).

143. While the Conditions allow for review of management plans etc. the Conditions do not require operation to these plans and the commitments of the EIS as a minimum, nor audit of compliance with this operation.

587. In OCAA's submission, the poor performance of the Applicant in managing these impacts means that future operations must be subject to a higher level of scrutiny. OCAA has proposed changes to condition B4, B6 and F9 to give effect to this proposition.<sup>534</sup>

588. Relevant condition/s: Ba, B4, Table B1, B6, F1, F5, F6, F6a, F9, Table F2

*It should be clear that the Statutory Party is able to access all mining related data held by the mine, and residents should be entitled to obtain data collected on their own property*

589. It is clear from the evidence before the Court that both community members and the Statutory Party have historically struggled to obtain data from the Applicant to investigate complaints and alleged breaches.

590. It should go without saying that landholders are entitled to obtain data that is collected on their own property. But evidence before this Court shows that this has not been the Applicant's practice in the past. This was evidenced by an email from neighbour Dr Tanya Plant to the Applicant:

Tom,

We have already had several meetings about the monitoring. If there is any further information you need to give us to ensure we understand the data then please forward this in writing together with a copy of the results. I have repeatedly asked for the results to be forwarded to us promptly once you receive them and I'd appreciate receiving a copy of all results and information that New Hope has access to in relation to our residence, particularly all noise and dust data, before Friday.

Given the above, and what you said on Monday morning, and particularly how easily and vehemently you dismissed previous agreements to provide data as 'your memory against mine', I don't see that there is any reason to withhold the results pending a further meeting.

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<sup>534</sup> JER Air Quality [137]-[142]

Regards

Tanya<sup>535</sup>

591. OCAA submits that this issue must be addressed in any new approval (conditions B10 and F4).
592. Similarly, there should be no question that the Statutory Party is able to access all data it requires to assess compliance with conditions that are its responsibility to enforce (conditions A5, A6, B4, B4a, B14, F4a, F6, F6a, F7, F9). In this situation, the Statutory Party must also act to protect the community from harm and consider data on its behalf. A key example of this is the importance of the audio files associated with the real time monitoring.
593. The audio data is used by the Applicant in its management regime to dismiss responsibility for certain noise exceedances. As described in the NVMP “This ongoing noise performance monitoring will be undertaken using directional noise monitors to continuously evaluate mine noise and exclude other extraneous noise sources not attributable to mining”.<sup>536</sup> In some instances, this may be appropriate. The Court heard evidence of the fact that noise exceedances can be generated by wildlife or passing vehicles. However, there is a risk that such exclusions are applied inappropriately.
594. The JER Noise included advice from the experts on recommended changes to the Current Draft EA, should Stage 3 be approved. An area in dispute between the experts in this regard was the format of real-time monitoring data including whether audio playback of monitoring events should be included (suggested addition E to condition F7 in the JER). This issue was further discussed during the hearing and Mr Tardio explained his reasons for recommending that real-time audio data should be made available:

.. the reason I've suggested that the, you know, these criteria or, sorry, these metrics need to be included in the online publicly available data is simply because if they're not included there, there's really no transparency to whether the noise targets are being complied with.

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<sup>535</sup> Exhibit 39, EHP.0213.

<sup>536</sup> NVMP (Exhibit 39, NAC.0044) s3.2 p 9.

Now, the reason more specifically why I've mentioned E is critical is because I actually expect, and we can sort of go back to comments that Mr Elkin just made, that there's going to be a lot of events that aren't related to the mining operation that end up triggering this Lmax exceedance. I fully acknowledge that. There's going to be local events that trigger it, there's going to be events that have nothing to do with the mine that might exceed this 50 decibel Lmax target.

Now, the issue with that is if a mining operator simply excludes all of that data because they happen to have the benefit of the audio and they can say, well, it's a bird in a tree or we don't think it sounds like it's from the mine. We think it sounds, you know – it's a distant car, for instance. I think for transparency it's quite critical that those excluded data, and I think there will be a lot of it for Lmax, for transparency reasons, it should be available for somebody else to independently review if they have a difference of opinion about when those events occurred and what those events were and whether or not they were mining related and the only way to do that, quite frankly, is to have the benefit of the audio playback.<sup>537</sup>

595. While the Applicant has subsequently accepted the need for real time monitoring to be made available, there remains disagreement about how the audio files should be treated.
596. The Statutory Party has come to the view that the audio files are a compliance tool. Under cross-examination, Dr McCosker went so far as to agree, “absolutely”, that a requirement for audio data to be kept by the Applicant and provided to the Statutory Party upon request was “critically important, in terms of the transparency of this real-time monitoring system.”<sup>538</sup>
597. However, in her evidence Dr McCosker also expressed concerns about the privacy implications of audio files being online:

Mr Horton: ... At F7, you've made a couple of layers of changes there, but one is that you haven't, as I understand it, included any requirement to make an audio recording of things that were excluded available publicly?

Dr McCosker: Yeah. It – it doesn't include the audio, as recommended, because that would be an intrusion of people's privacy, both the people that may be undertaking the monitoring and the – you know, sensi – people at the sensitive receptors.

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<sup>537</sup> T5-29, line 40 – T5-30, line 14.

<sup>538</sup> T9-36, lines 26–30.

Mr Horton: But do you regard what's there, particularly in (d), as adequately addressing objections, particularly with respect to noise?---Yes, I do.

And could you just briefly explain how in respect of reasons being given for exclusions and exclusion times and comments?---I suppose – yeah. You know, like, if you're not going to – if you're going to exclude – exclude data, you need to justify who you've excluded it so that it's a transparent presentation of your information.<sup>539</sup>

598. Transparency and accountability require that decisions about excluding data, that would otherwise inform compliance with conditions, must be subject to independent scrutiny when required. However, given the privacy concerns of Dr McCosker, ensuring that the Statutory Party is able to access such records on an ongoing basis as proposed by OCAA (condition F6), rather than making this information fully available to the public, is an appropriate compromise.

599. Relevant condition/s: A5, A6, B4, B4a, B10, B14, F4a, F6, F6a, F7, F9

*Ensuring the mine recognises its operations are considered as part of cumulative impacts on its neighbours*

600. OCAA has recommended changes that will ensure that the proponent's impacts on air quality and noise are considered as they are experienced at the sensitive receptor or representative monitoring location by changing the language in conditions from "cause" to "cause or to contribute to" exceedances (conditions Ba, B9, F1, F3).

601. This language is consistent with the way OCAA understands the conditions are intended to work. Mr Welchman's evidence appears consistent with this view:

MR WELCHMAN: In – In my – in my view, I don't think that the mine is going to– in the day-to-day management of the activity, the mine is going to look at the circumstances and evaluate what could be contributing. We're talking about very light wind conditions so in – we're not talking about a case where it could obviously be stated the wind's going in another direction. If – if – if wind conditions are light, they're light and those circumstances will be circumstances where, I think, the mine will react to those conditions and investigate whether it is the mine that is likely to be contributing to the elevated levels.

So I don't think you need the additional meteorological data for the mine to react to meteorological conditions and to do something about

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T8-13, lines 30–43.

elevated levels. So we're talking about a situation where the mine is operating, they're looking at the data on their dashboard and they're coming to some immediate conclusion about what's going on. In my view, I don't think they're going to be splitting hairs about wind direction when – when their immediate issue will be “are we contributing” and “is there something we can do to reduce our dust levels.”<sup>540</sup>

602. The condition should make it clear that the mine is not to contribute to an exceedance. For example, if there is a fire or elevated dust from some other source, the mine should not blindly carry on with the excuse that they were not the ‘cause’ of the exceedance. As Dr Taylor said:

DR TAYLOR: I don't know [indistinct] should be viewing it, probably the – you know, because the – if the PM2.5 level is high because of a fire, then that should be – the mine should be managing – to still achieve compliance under my view.<sup>541</sup>

603. Recommended condition/s: Ba, B9, F1, F3

*Strong reliance on the TARP means its implementation must be unambiguous*

604. As discussed previously, the Applicant's claim to improved performance relies heavily on its ability to adaptively manage the site using the Trigger Action Response Plan (**TARP**).
605. However, in relation to air quality there are a number of proposed conditions where the requirement to trigger the TARP is unclear, and some measures provide insufficient guidance on whether the condition will be achieved over the relevant period of time. Given how fundamental the TARP is to the Applicant's ability to achieve compliance with any conditions of consent, these ambiguities cannot be retained in any final conditions of consent.
606. The Current Draft EA refers to the TARP for air quality in multiple locations with requirements for the TARP to be implemented differently for different air quality parameters. In OCAA's submission, this is unnecessarily confusing and leaves it open to the Applicant to fail to activate the TARP when some air quality limits are being approached. OCAA has recommended consolidating any

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<sup>540</sup> T7-98, lines 25–40.

<sup>541</sup> T7-105, lines 36–38.

- conditions relating to the TARP to improve clarity and consistency in management and making it clear that the TARP must be implemented across all air quality parameters (condition B4).
607. Ultimately, the Applicant intends to use the TARP to manage its ability to meet relevant limits on an immediate, 24-hour and annual timeframe. The ability to achieve annual air quality limits will depend on the success of day-to-day operations management in working towards the annual goal throughout the year. Realising that compliance won't be achieved on day 364 of the year can provide no comfort to the community that appropriate management measures are being applied throughout the year.
608. As noted in the JER Air Quality:
- While John Taylor considers that it may be possible to manage air quality impacts to achieve compliance with the 24-hour average limit for TSP, PM10 and PM2.5 , achieving compliance with the 24-hour average limits may not necessarily lead to compliance with annual average limits that are set out in the Draft EAs, particularly in relation to PM10 and PM2.5 where the annual average limits are 50% and less than 33% of the 24-hour average limits.<sup>542</sup>
609. This means that achieving annual limits will require more than simply meeting the limits immediately and every 24 hours. One way to ensure annual limits are tracking appropriately is to have trigger values that do not act as compliance limits. Rather, these indicators should identify when further attention should be given to a particular measure to ensure compliance in the longer term. OCAA has recommended conditions to facilitate this ongoing management requirement is achieved (condition B4).
610. Relevant condition/s: B4
- Definitions and minor wording changes for clarity*
611. OCAA has suggested a number of additions and modifications to the Definitions in OCAA's Draft EA. These changes are intended to ensure that there can be no doubt as to the intent of the conditions as drafted.

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<sup>542</sup> JER Air Quality (Exhibit 24, NAC.0126) [68].

612. Similarly, there are a number of conditions that require amendments to avoid ambiguity and ensure that the intent, as well as the specific wording, of conditions must be complied with (conditions B3, F4a and F11).

613. Recommended condition/s: Definitions, B3, F4a, F11

### **Transparency and accountability**

*The conditions must be clear about what the limits are*

614. OCAA proposes that condition Ba of the EA should say:

The holder of this environmental authority must ensure that dust and particulate matter emissions generated by the mining activities do not cause or contribute to exceedances of each of the air quality limits and nuisance limits in Table B1- Air Quality Limits and Monitoring at a sensitive place or commercial place.

615. The Applicant not only opposes the words “or contribute to,” but instead of “the air quality limits and nuisance limits” the Applicant simply wants the term “limits” in the condition. This is to leave room for it to later allege that it does not need to comply with the nuisance limits.

616. The conditions must be clear about what limits must be met.

617. Relevant condition/s: Ba

*Comprehensive real time data must be made publicly available and maintained for at least the life of the mine*

618. While all parties agree that some real time data should be made available, the Statutory Party and the Applicant seek to unnecessarily limit this data, in OCAA’s submission.

619. The Statutory Party is proposing that monitoring data and reports must be maintained for the life of the mine which the Applicant resists.

620. OCAA says all relevant data should be maintained of the life of the mine.

621. A key recommendation for improving transparency in management of the mine is the provision of publicly available real-time monitoring data. While there is agreement between the parties that the provision of such data is necessary, there remains substantial disagreement on the extent and form of the data that should be made available.

622. OCAA submits that comprehensive real time data is required to allow residents to obtain a greater understanding of any impacts they are experiencing in real time, to ensure that there is opportunity to respond to impacts that may affect their health and wellbeing, and to hold the Applicant to account.
623. OCAA recommends that any condition of approval in relation to noise should contain requirements for the noise limits, LAeq, adj 15min interval levels, LAmax, 15min interval levels, and exclusion times and information on the reason for the exclusion (condition F7). Issues in relation to audio files have been discussed previously.
624. In relation to air quality, OCAA recommends that any conditions of approval should contain requirements for the data to be presented spatially and in a way that shows whether the air quality limits in Table B1 have been exceeded (condition B7).
625. To allow the community to meaningfully engage with this data, the following additional air quality information as outlined in the AEMP should also be presented:
- a) Map of Table B1 air quality monitoring locations;
  - b) Timeseries graph for each monitoring location showing the most recent monthly dust deposition rate;
  - c) Summary of meteorological conditions at the Acland site weather station, including:
    - i) Wind speed;
    - ii) Wind direction;
    - iii) Frequency of winds in the past 24 hours in the form of a wind rose;
  - d) Most recently available site relevant weather forecast;
  - e) Estimate of the contribution of different wind directions to the ambient concentration in the form of a dust rose at each monitoring site;
  - f) Historical download page to allow user to download monthly reports containing validated measurements of dust and meteorological conditions

recorded by the monitoring system assessed against the air quality limits contained within Table B1. Valid dust measurements will be reported as 24-hour averages.

- g) Downloadable, unverified dust data for the monitoring locations for the period from the end of the most recent monthly report to the latest available dust information.
  - h) Information page (or fact sheets) that includes instructions on how to read a wind rose, how to read a dust rose, definitions of TSP, PM10 and PM2.5 and other dust metrics.
626. Further additions to the publicly available real-time monitoring system have been proposed by the Statutory Party, based on the expert evidence Dr McCosker which is understood to be “common ground” between the experts.<sup>543</sup> OCAA has modified this wording slightly to recommend real-time data is presented as follows:
- a) Real-time data from each monitoring location as follows:
    - i) real-time rolling one hour average across all sites
    - ii) real-time short term (5-6min) monitoring data on rolling 3 hour basis;
    - iii) real-time rolling one hour average data on 24 hour basis;
    - iv) links to historical data on one hour basis; and
    - v) links to historical 24 hour data.
627. The Applicant opposes the inclusion of anything more than links to historical 24 hour data being included in the EA.
628. The length of time that such data is made available is also a key question.
629. This issue applies equally to noise and to dust records.

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<sup>543</sup> T9-21, lines 25–26.

630. It was put to Mr Elkin whether the information that's available to the public should include a record of what has occurred over time – that is, it shouldn't just be what's on the dashboard at that particular time. Mr Elkin's responded:

WITNESS ELKIN: I agree – I agree with that.<sup>544</sup>

631. Mr Elkin stated that he was satisfied with a condition that required data to be maintained for five years. However, when asked about the length of time that the data should be maintained, Mr Tardio expressed the view:

... There's obviously a rich history on this site and I think both experts have benefitted from that rich history and having a lot of data records available. My concern is that if there were another matter, perhaps for another expansion, some time in the future beyond five years that were proposed, and regardless of whether that, you know, proceeded to a court hearing or not is probably irrelevant. But certainly, I think, having the data available for the life of the mine, potentially, would be a benefit for any other expert perhaps looking at another situation in the future or another proposal in the future. Now, I only say that because I assume that there's no technological reason why the information that we're talking about here can't be kept on record. We're really talking about information kept on a hard drive or a server.<sup>545</sup>

632. OCAA contends that the very nature of the current proceedings demonstrates the value of maintaining data for at least the life of the mine. Such data is inherently required to assist with understanding impacts, improving management and making informed decisions in relation to future mining activities (conditions A3, A5, B7 and F7).
633. The provision of real-time and historical data is important in providing the community with an opportunity to meaningfully engage in discussions about the effects of the mine on individuals and the community as a whole.
634. Relevant condition/s: A3, A5, B7, F7

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<sup>544</sup> T5-33, line 33.

<sup>545</sup> T5-40, lines 29–39.

*Clear timelines must be required for the provision of reporting data and reports and reviews must be made publicly available in a timely manner*

635. The parties disagree on the level of specificity required in relation to timelines for the provision of management plans, reports and reviews.
636. The Statutory Party has included some timelines in the Current Draft EA, which the Applicant has largely accepted, but OCAA says there are a number of key management plans and reports where the conditions provide no certainty.
637. Imposed Condition 3 from the Co-ordinator General requires that:<sup>546</sup>
- From the commencement of construction for the New Acland Coal Mine Stage 3 project (the project), the proponent is to prepare and make publicly available each month (including online) environmental monitoring reports that address performance against EA conditions that set limits for air, noise, and vibration impacts.
638. This is an important requirement. However, there will be an inevitable delay between the end of the month and the provision of the report for that month. What is currently missing from the Current Draft EA, in OCAA's submission, is any direction as to how this timing delay is to be accommodated.
639. The Applicant currently opposes a number of conditions put by OCAA that go to ensuring strict timelines and reporting requirements in relation to:
- a) Monthly reports required under Condition 3 of the imposed conditions of the Coordinator-General being completed within fourteen (14) days from the end of the reporting month;
  - b) Implementing the findings of any reviews under Condition B6;
  - c) Reporting on exceedances under Condition B7;
  - d) The provision of data collected on their property to private landowners within 10 days of a request;
  - e) The provision of audio data to the Statutory Party within 10 days of any request;

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<sup>546</sup> Coordinator-General, New Acland Coal Mine Stage 3 project Coordinator-General's evaluation report on the environmental impact statement (2014) (Exhibit 39, EHP.0016) p 158.

- f) Providing the findings of peer reviews under noise conditions to the Statutory Party and the public.
640. In effect, the Applicant is asking that the Court and the community accept that, despite the evidence of its past performance, the Applicant will act transparently and in a manner that is consistent with its conditions of consent; without being explicitly required to do so.
641. OCAA says that the Applicant must be held accountable for its management of the Stage 3 project and the most effective way of doing this is ensuring information that goes to the implementation of the conditions is available to the Statutory Party and the community in a timely manner.
642. A number of conditions (specifically A3, A3a, A7, B6a, B10, B13, F6a, F7 and F10) should be amended to provide specific deadlines for reporting, thus allowing the Statutory Party and the community to obtain access to relevant information in a timeframe that relates to the management issues that the reporting is designed to address.
643. Relevant condition/s: A3, A3a, A7, B6a, B10, B13, F6a, F7, F10
- The Statutory Party must be responsible for approving relevant plans, including any modifications, and the Stage 3 project must be subject to independent review*
644. The Statutory Party currently has a commentary role in a number of management plans but does not include a requirement for approval of plans nor does it have any ability to approve third party reviewers. The Applicant has indicated it is willing to accept an approval role in some, but not all, circumstances contended for by OCAA.
645. The rationale for OCAA's changes requiring the management plans to be approved by the Statutory Party is set out earlier in these submissions under the heading "Stronger conditions are a necessary pre-requisite to any approval" (conditions B5 and F8).
646. As discussed previously in these submissions, there is a clear history of the Applicant consistently using the same experts to provide advice regarding the New Acland Coal mine. While it is often helpful to use the same experts to ensure continuity, there is also an important role for independent peer review. OCAA's

- changes suggest the addition of the words “independent” and that the person be approved by the Statutory Party at key places in the conditions (conditions A11, B4, B6, and B14).
647. Similarly, OCAA has proposed changes to make clear that the Statutory Party has the ability to conduct its own review in circumstances where it is not satisfied with the Applicant’s performance (conditions B14).
648. Importantly, approvals by the Statutory Party must be provided **before** work on Stage 3 commences. To do otherwise would essentially leave the community at the whim of the Applicant for an indeterminate time – an Applicant whose past performance has demonstrated very low regard for the wellbeing of its neighbours (conditions B6 and F4, F6 and F8).
649. Making these requirements explicit in the conditions will be important for strengthening accountability in the conditions.
650. Relevant condition/s: A11, B6, B6a, B14, F4, F6, F8

*Community views must be sought in any Stage 3 project reviews*

651. OCAA contends that there should be a pathway for the Applicant’s neighbours to provide input into reviews of management plans. Neither the Statutory Party or the Applicant have accepted this recommendation.
652. Evidence provided by the lay witnesses make it clear that the Applicant has not always enjoyed good relationships with its neighbours. In fact some of their neighbours are so disillusioned by their previous engagement, that they no longer wish to engage directly with the Applicant at all.
653. During cross-examination, Mr Beutel expressed his concerns in this regard:

Now, tell me if you don’t recall this, but do you remember, perhaps in about December of 2012, telling the department that you didn’t want to undertake – didn’t want New Acland to undertake noise monitoring at your house?---That sentiment is compatible with my thoughts in the early days.

Okay. And do you remember at about the same time, telling the department that you didn’t want details of your complaints to be provided by the department to New Acland?---Yes, I remember that.

And did there generally come a period - - -?---Could I – could I add to that? Sorry.

By all means?---I remember, in a general sense, having various experiences of intimidation and I didn't think it was necessary for the department to know who made the complaint in order to deal with it, and I didn't want to be identified.<sup>547</sup>

654. It is important that a lack of complaints made directly to the Applicant is not taken as community support for Stage 3 or satisfaction with the management measurements that are in place. Rather, the evidence before the Court highlights the importance of independent review and ongoing community consultation.
655. A pathway must be provided to ensure that community members are given an opportunity to express any concerns in relation to Stage 3 without having to engage directly with the Applicant and in a way that can be considered during any revisions of management plans and monitoring programs (condition B4).
656. Relevant condition/s: B4

*Air Quality trend monitors should be maintained to ensure the system is functioning as intended*

657. All parties agree that trend monitors are a useful management tool. The Applicant and Statutory Party leave decisions on their use to the management plans. OCAA says the requirements for trend monitors should be acknowledged in the conditions.
658. Another key management feature supported by both air quality experts, albeit in different terms, was the use of trend monitors to ensure the system is performing as expected. While there was some disagreement between the experts on how this should be implemented, ultimately, both experts agreed with their value.
659. Dr Taylor provided a succinct description of the important of trend monitors in the JER Air Quality:

John Taylor is also of the opinion that NAC needs to respond to concerns and complaints expressed by affected residents in efficient timeframes.

- With the variability of operational emissions and locations coupled with the variability in meteorology on an hourly, daily, and seasonal basis, establishing a monitoring campaign months after a series of complaints is

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<sup>547</sup> T2-11, lines 31–44.

next to pointless, apart from not detecting the issues that led to the complaints.

- Maintaining a small number of calibrated trend monitors that can be quickly (24 to 48 hours) relocated to investigate concerns of residents as they arise would assist in the management of potential adverse impacts at sensitive receptor locations.<sup>548</sup>

660. Dr Taylor went on to explain:

In John Taylor's opinion, the application of calibrated trend monitors is required to assist detection of elevated dust events at sensitive receptor locations that may not necessarily be adequately covered by the compliance monitoring system, and for use in investigations such as complaints, earlier detection at the site boundary or the effect of agricultural activities. The use of compliance monitors for such activities should not be precluded. In John Taylor's opinion, trend monitors should be implemented as follows:

- The trend monitoring provides the ability to detect and manage elevated particulate concentrations at locations of less risk or in assistance of compliance monitoring with a less complex infrastructure.
- Establish three independent trend monitoring systems alongside primary sites to east (2 systems - R16) and west (1 system - R38)
  - Once calibrated the systems can be relocated to investigate issues/concerns
    - i. Two east systems initially for investigation related to regions east and north of operations (i.e. TSP at R15, elevated impacts at R14, R17 or R6 for instance).
    - ii. Western trend system primarily for issues on the western side of operations (i.e. TSP at R44)
- Each trend monitoring system should be independently power (not require mains power) to enable rapid re-location/installation in response to concerns and complaints of sensitive receptor residents.
- Trend monitors should be 'calibrated' or referenced against compliance monitors that are representative of the operational location if possible.<sup>549</sup>

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<sup>548</sup> JER Air Quality (Exhibit 24, NAC.0126) [132].

<sup>549</sup> JER Air Quality (Exhibit 24, NAC.0126) [179].

661. In OCAA’s submission trend monitors can play an important role in ensuring ongoing community concerns are addressed in a timely manner. Given the Applicant’s proven poor performance in relation to air quality, Dr Taylor’s evidence in relation to trend monitors should be preferred (condition B4).
662. Relevant condition/s: B4.

**The Court has the power to recommend OCAA’s proposed conditions if approval is granted**

*OCAA’s proposed conditions are consistent with the Coordinator-Generals conditions*

663. The Court has previously considered the relationship between the EPA, MRA and SDPWOA for applications involving mines that have been declared to be coordinated projects (previously “significant projects”), particularly the requirement that the Court may not recommend a condition that is “inconsistent” with a condition stated by the Co-ordinator General.<sup>550</sup> The Court has held that it:

Has the power under the EPA to recommend conditions for the draft EA dealing with the same subject matter as conditions imposed by the Co-ordinator-General, provided that the Court’s recommended conditions do not contradict or lack harmony with the Coordinator-General’s conditions.<sup>551</sup>

664. This reasoning was applied in the Hancock Case<sup>552</sup> and the Adani case,<sup>553</sup> and was discussed in detail by the Supreme Court in *New Acland Coal Pty Ltd v Smith & Ors* [2018] QSC 88.
665. In New Acland, a recommendation of a condition prescribing lower noise limits than that prescribed in the CG’s report was considered by Justice Bowskill to be inconsistent for the purposes of s 190(2)(b) of the EPA. In Bowskill J’s view, the

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<sup>550</sup> *Xstrata Coal Queensland Pty Ltd & Ors v Friends of the Earth-Brisbane Co-Op Ltd & Ors and Department of Environment and Resource Management* [2012] QLC 13 [2012] QLC 13 at [24]-[50], [606]-[610]; *Hancock Coal Pty Ltd v Kelly & Ors and Department of Environment and Heritage Protection (No. 4)* [2014] QLC 12 [2014] QLC 12 at [71]-[80]; EPA s 190(2).

<sup>551</sup> *Wandoan Case* [2012] QLC 013 at [47] – Equivalent provisions to those applied in the Wandoan Case are relevant in these proceedings under s190(2)(b) of the EPA.

<sup>552</sup> *Hancock Coal Pty Ltd v Kelly & Ors and Department of Environment and Heritage Protection (No. 4)* [2014] QLC 12 [2014] QLC 12 at [71]-[80].

<sup>553</sup> *Adani Mining Pty Ltd v Land Services of Coast and Country Inc & Ors* [2015] QLC 48 [412]-[414].

condition would be inconsistent because it dealt with identical subject matter as the relevant Coordinator General condition and prescribed different rules of conduct.<sup>554</sup> Her Honour reasoned that, in effect, the existence of both conditions would have had the effect of the Applicant being able to properly comply with the Coordinator General's noise conditions while breaching conditions imposed by the Land Court. This would amount to an inconsistency per the ordinary meaning of the word.<sup>555</sup>

666. Bowskill J presented an alternative in obiter for such circumstances where the Court sees fit to recommend stricter conditions than those of identical subject matter provided for by the CG:

Even where the inconsistent condition is considered sufficiently important by the Land Court that, in its absence, the approval ought to be refused, there may be other options available, including making any recommendation for approval subject to a condition that it not take effect unless and until an application is made by the proponent to the Coordinator General to change the condition, and on the basis of that application, or otherwise (for example, on the Coordinator-General's own initiative) the condition being changed, consistent with the Land Court's recommendation.<sup>556</sup>

667. In the remittal hearing heard by President Kingham in 2018,<sup>557</sup> her Honour took up Justice Bowskill's suggestion, in effect recommending approval of Stage 3 on the condition that the Coordinator General apply lower noise limits after application be made by the Applicant.
668. Following the Applicant's subsequent application in the terms of President Kingham's recommendation, the Coordinator General published a Change Report<sup>558</sup> on 12 February 2019, lowering the noise limits imposed by its initial Evaluation Report.<sup>559</sup>

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<sup>554</sup> *New Acland Coal Pty Ltd v Smith & Ors* [2018] QSC 88 at [345].

<sup>555</sup> *New Acland Coal Pty Ltd v Smith & Ors* [2018] QSC 88 at [344]-[345].

<sup>556</sup> *New Acland Coal Pty Ltd v Smith & Ors* [2018] QSC 88 at [337].

<sup>557</sup> *New Acland Coal Pty Ltd v Ashman & Ors (No 7)* [2018] QLC 41.

<sup>558</sup> Coordinator-General's report – Amendment to stated conditions (noise) (Exhibit 39, DES.0008).

<sup>559</sup> Coordinator-General's evaluation report on the EIS (Exhibit 39, EHP.0016).

669. At odds with the sentiment of Justice Bowskill’s interpretation, the CG stated:

I consider the proposed amendments to noise conditions would improve outcomes for the local community by imposing more stringent noise limits on mining activities during both construction and operation. I also consider the revised conditions to be consistent with the intent of the stated conditions in my CGER [Coordinator-General Evaluation Report].<sup>560</sup>

670. The Coordinator General’s view appears to allow a conclusion that stricter conditions, such as the lowering of noise limits, that share the intent of a Coordinator General condition, such as improving outcomes for the local community, can be consistent.

671. Further guidance is limited on this apparent contradiction between the Coordinator General’s and the Supreme Court’s views on what amounts to “inconsistency” for the purposes of s 190(2)(b) of the EPA. However, OCAA submits that the better view is OCAA’s proposed conditions are consistent with the CG conditions because they serve one or more of the following purposes:

- a) Superficially edit the text of existing conditions to clarify their intent (e.g. see OCAA Conditions A5-A7, B1(a)-(d), F1, F10);
- b) Supplement existing conditions without altering their intent (e.g. OCAA Conditions Ba, B2, B4, B6, F8, F9(e)-(g));
- c) Augment existing conditions in line with their intent (e.g. OCAA Conditions A11(a)), B7, F3, F7);
- d) Include additional conditions not provided for by the subject matter of the Coordinator General Report (e.g. OCAA Conditions “New Condition” p 9, p 10).

*In the alternative, any approval should be made conditional upon the Coordinator-General imposing OCAA’s conditions*

672. Where this Court sees fit to find differently, OCAA submits that its proposed conditions are essential to protecting amenity and as such, any recommendation

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<sup>560</sup> Coordinator-General’s report – Amendment to stated conditions (noise) (Exhibit 39, DES.0008) p 13.

of approval should be conditional upon the Coordinator General approving OCAAs conditions via a change report.

673. OCAA's proposed conditions are founded on creating certainty of the bounds of the Applicant's prospective rights and obligations under any issued EA. This is to contend with the Applicant's history of mining which has demonstrated its tendency to rely upon ambiguity in its existing EA to its benefit and the detriment of impacted landholders.

## **CONCLUSIONS**

674. For reasons set out above, the Court should recommend:

- a. MLA50232 and MLA70002 be rejected; and
- b. the EA Amendment Application be refused.

675. If the Court determines to recommend the grant of the MLAs and approval of the EA Amendment Application, then the Court should recommend clearer, more transparent and enforceable conditions as set out in OCAA's Draft EA in Appendix 5A.

**Juliet Forsyth SC**  
Owen Dixon Chambers West

**Chris McGrath**  
Higgins Chambers

**Kasey McAuliffe-Lake**  
Alfred Lutwyche Chambers

**Environmental Defenders Office**

23 November 2021

# APPENDIX 1 - CHRONOLOGY OF NOISE COMPLAINTS

## OCAA Chronology – Noise Complaints

### New Acland Mine 2002 - 2021

| No. | Date           | Event                                    | Commentary  | Evidence source/s   |
|-----|----------------|--|---|---|
| 1.  | August 2002    | Mine noise complaint – sleep disturbance | “...sleepless nights while heavy machinery roars, bleeps, clanks and honks all night less than a kilometre from their house.”<br>“...he would need to have an official complaint form filled out by the complainant and he would mail out one today...” | <ul style="list-style-type: none"> <li>• (DES Disclosure) 20020819 File Copy Re Chronicle article New Acland</li> <li>• (DES Disclosure) See also 20020819 Letter Nuisance Complaint – New Acland</li> </ul>                  |
| 2.  | 8 August 2002  | Mine noise complaint – sleep disturbance | “...strongly object to the high noise level continually through most of the night until the early hours of the morning. ...major sleep disruptions and has severely disturbed our normal way of life.”  | <ul style="list-style-type: none"> <li>• (DES Disclosure) 20020833 Letter (EHP) Noise &amp; Dust Complaint (<i>sic</i>) – NAC Mine</li> <li>• (DES Disclosure) See also 20020811 Letter Complaint dated 8.8.02 NAC</li> </ul> |
| 3.  | 8 August 2002  | Mine noise complaint – general           |   | <ul style="list-style-type: none"> <li>• Ex 1226/TWB741 Vol 2 (44001-000236)</li> </ul>   |
| 4.  | 12 August 2002 | Mine noise complaint (sleep disturbance) | “You obviously has the scrapers going last night as well, could you possibly schedule things...could be done during daylight hours and the further away work done at night...”  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul>   |
| 5.  | 13 August 2002 | Mine noise complaint (sleep disturbance) | “The noise level is totally unacceptable. I only had 4 hours sleep.”  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul>   |
| 6.  | 19 August 2002 | Mine noise complaint – general           | “Scraper noise again”   | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul>   |

|     |                  |  |  |   |
|-----|------------------|--|--|---|
| 7.  | 19 August 2002   | Mine noise complaint – general                           |  | <ul style="list-style-type: none"> <li>• Ex 1226/TWB741 Vol 1 (44001-000236)</li> </ul>                                 |
| 8.  | 28 August 2002   | Mine noise complaint – general                           |  | <ul style="list-style-type: none"> <li>• Ex 1226/TWB741 Vol 2 (44001-000236)</li> </ul>                                 |
| 9.  | 4 September 2002 | Mine noise complaint – general                           |  | <ul style="list-style-type: none"> <li>• Ex 1226/TWB741 Vol 2 (44001-000236)</li> </ul>                                 |
| 10. | 8 October 2002   | Mine noise complaint (sleep disturbance)                 | “...couldn’t sleep all night, sounded like heavy machinery all night...”   | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 11. | 18 October 2002  | Mine noise complaint (sleep disturbance) 4am             | “...the whole family is awake.”  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 12. | 27 January 2003  | Mine noise complaint – general                           |  | <ul style="list-style-type: none"> <li>• Ex 1226/TWB741 Vol 2 (44001-000236)</li> </ul>                                 |
| 13. | 27 January 2003  | Mine noise complaint – general                           |  | <ul style="list-style-type: none"> <li>• Ex 1226/TWB741 Vol 2 (44001-000236)</li> </ul>                                 |
| 14. | 27 March 2003    | Mine noise complaint (sleep disturbance)                 | “...noise at night still very disturbing....waited several months since our first complaint hoping things would improve but unfortunately it is still so bad...” | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 15. | 9 April 2003     | Mine noise complaint (sleep disturbance)                 |  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 16. | 30 April 2003    | Mine noise complaint (sleep disturbance) 2:30am – 5:15am | “reversing beepers...really annoying”  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 17. | 20 May 2003      | Mine noise complaint (sleep disturbance) 10pm – 2am      | “kept his wife and children awake”   | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 18. | 9 July 2003      | Mine noise complaint (sleep disturbance) 3am             |  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 19. | 8 August 2003    | Mine noise complaint – General                           |  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 20. | 13 August 2003   | Mine noise complaint (sleep disturbance) 10:30pm         |  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |

|     |                   |   |  |   |
|-----|-------------------|---|--|---|
| 21. | 16 September 2003 | Mine noise complaint (sleep disturbance)        | "...explained that if the problem persisted, the Mine had a procedure to properly investigate the matter (i.e. using the Mine's noise consultant)..."  | • N287 Redacted Complaints register compiled by NAC ( <b>OCA.0015</b> ) |
| 22. | 26 September 2003 | Mine noise complaint (sleep disturbance) 3am    |  | • N287 Redacted Complaints register compiled by NAC ( <b>OCA.0015</b> ) |
| 23. | 5 December 2003   | Mine noise complaint – General                  |  | • N287 Redacted Complaints register compiled by NAC ( <b>OCA.0015</b> ) |
| 24. | 19 February 2004  | Mine noise complaint (sleep disturbance)        | "...had a little noise in the last fortnight – nothing you can't sleep through if you go to bed early, but last night was different, with think it was mainly trucks – coming and going about every 5 mins. A few reversing beepers, but mainly when they take off and rev the engine up." | • N287 Redacted Complaints register compiled by NAC ( <b>OCA.0015</b> ) |
| 25. | 4 April 2004      | Mine noise complaint (sleep disturbance) 2:30am |  | • N287 Redacted Complaints register compiled by NAC ( <b>OCA.0015</b> ) |
| 26. | 24 June 2004      | Mine noise complaint – General                  |  | • N287 Redacted Complaints register compiled by NAC ( <b>OCA.0015</b> ) |
| 27. | 7 July 2004       | Mine noise complaint – General                  | "noise level increased over the last few weeks..."   | • N287 Redacted Complaints register compiled by NAC ( <b>OCA.0015</b> ) |
| 28. | 7 July 2004       | Mine noise complaint – General                  | "strong complaint about noise especially at night..."  | • N287 Redacted Complaints register compiled by NAC ( <b>OCA.0015</b> ) |
| 29. | 1 December 2004   | Mine noise complaint – General                  |  | • N287 Redacted Complaints register compiled by NAC ( <b>OCA.0015</b> ) |
| 30. | 16 December 2004  | Mine noise complaint – General                  |  | • N287 Redacted Complaints register compiled by NAC ( <b>OCA.0015</b> ) |
| 31. | 24 December 2004  | Mine noise complaint (sleep disturbance)        | "Noise all night – stops at 7am."  | • N287 Redacted Complaints register compiled by NAC ( <b>OCA.0015</b> ) |
| 32. | 20 January 2005   | Mine noise complaint (sleep disturbance)        |  | • N287 Redacted Complaints register compiled by NAC ( <b>OCA.0015</b> ) |

|     |                   |   |  |   |
|-----|-------------------|---|--|---|
| 33. | 7 March 2005      | Mine noise complaint – General 7am              |  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 34. | 4 April 2005      | Mine noise complaint (sleep disturbance)        |  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 35. | 12 May 2005       | Mine noise complaint – General                  |  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 36. | 14 May 2005       | Mine noise complaint – General                  | “unbearable this last week”  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 37. | 15 May 2005       | Mine noise complaint – General                  |  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 38. | 17 May 2005       | Mine noise complaint – General                  | “The level of noise tonight coming from those machines is unreal. ... The noise is really getting out of control.” | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 39. | 23 May 2005       | Mine noise complaint (sleep disturbance)        |  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 40. | 13 June 2005      | Mine noise complaint – General                  | “getting ridiculous”   | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 41. | 26 June 2005      | Mine noise complaint – General                  | “last 3 nights the noise is getting unbearable”  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 42. | 6 July 2005       | Mine noise complaint – General                  |  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 43. | 19 August 2005    | Mine noise complaint – General                  |  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 44. | 21 August 2005    | Mine noise complaint – General                  |  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 45. | 19 September 2005 | Mine noise complaint (sleep disturbance) 1:30am |  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 46. | 4 October 2005    | Mine noise complaint – General                  |  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 47. | 25 October 2005   | Mine noise complaint (sleep disturbance)        |  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |

|     |                  |  |   |   |
|-----|------------------|--|---|---|
| 48. | 23 December 2005 | Mine noise complaint (sleep disturbance)         |   | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 49. | 27 December 2005 | Mine noise complaint (sleep disturbance) 5:30am  |   | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 50. | 23 January 2006  | Mine noise complaint – General                   |   | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 51. | 17 February 2006 | Mine noise complaint – General                   |   | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 52. | 24 June 2006     | Mine noise complaint (sleep disturbance) 3am     | “...Accursed NAC in past that when she rings and complains, NAC changes the operation and then go and take noise readings which appear low.”                | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 53. | 30 June 2006     | Mine noise complaint (sleep disturbance) 5:50am  | “...noise coming and going in waves waking her up...”   | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 54. | 5 July 2007      | Mine noise complaint – general                   |   | <ul style="list-style-type: none"> <li>• Ex 1226/TWB741 Vol 13 (44001-000236)</li> </ul>                                |
| 55. | 6 July 2006      | Mine noise complaint (sleep disturbance)         | “...on and off since 10:30pm last night...”   | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 56. | 7 July 2006      | Mine noise complaint (sleep disturbance)         | “...the noise from the mine has been excessive at night and early in the morning...”  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 57. | 10 July 2006     | Mine noise complaint (sleep disturbance)         | “...noise waking her up. It was acceleration noise and they dying off. ...She said we probably would not get any high readings as it was coming and going.” | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 58. | 11 July 2006     | Mine noise complaint (sleep disturbance) 5:10am  | “...awakened by noise from the site.”   | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 59. | 15 July 2006     | Mine noise complaint (sleep disturbance) 12:25am | “First time complaint Noise – mine trucks she guessed.”   | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |

|     |                   |   |   |   |
|-----|-------------------|---|---|---|
| 60. | 19 July 2006      | Mine noise complaint – general                  | “...trucks banging down on cement culver all night...”  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 61. | 17 August 2006    | Mine noise complaint – general                  |   | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 62. | 25 August 2006    | Mine noise complaint – general                  | “Rang mine about noise...” Harrison   | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>                          |
| 63. | 21 September 2006 | Mine noise complaint (sleep disturbance)        | “Rang the mine about the noise. I got no sleep all night.” Harrison   | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>                          |
| 64. | 21 September 2006 | Mine noise complaint (sleep disturbance)        | “...excessive noise from 10:00pm (20/9/2006) to atleast ( <i>sic</i> ) 2:00am (21/90/2006) ( <i>sic</i> )”  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 65. | 28 September 2006 | Mine noise complaint (sleep disturbance) 4:30am | “Rang the mine about the noise. The mine woke me at 4:30am. I got up at 5am and went up to the old house and did some work there.” Harrison                                 | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>                          |
| 66. | 28 September 2006 | Mine noise complaint (sleep disturbance)        | “...Noise during the early morning house of last night was extremely loud...woken by loud, consistent machinery rumbling.”  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 67. | September 2006    | Mine noise complaint (sleep disturbance)        | “Noise has been excessive over the last couple of weeks. ...sleep depravation from excessive noise is causing distress.”<br>First time complaining.                         | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 68. | 26 January 2007   | Mine noise complaint (sleep disturbance) 3:15am | “Went to be about midnight. Got worken up by the mine at 3:15am with terrible noise. I ran the mobile number but did not get an answer. Tried 3 times.”<br>Harrison         | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21 (<b>OCA.0215</b>)</li> </ul>        |
| 69. | 27 January 2007   | Mine noise complaint (sleep disturbance) 3:15am | “Rang the mine about noise. Tried to ring the mine at 3:15am. I’m very tired – not having much sleep. The mine did not ring me back so I rang them back again.”<br>Harrison | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21 (<b>OCA.0215</b>) [51]</li> </ul>   |

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| 70. | 9 March 2007  | Mine noise complaint – general                        | “Reported noise at mine. Rang David Genn [NAC’s Principal Environmental Officer at the time] about curtains again. Brad from mine rang about blast to be at 11am. I told him about the noise.”  | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21 [60]</li> </ul>  |
| 71. | 16 April 2007 | Mine noise complaint (sleep disturbance) 3:30- 4:00am | “The mine got very noisy about 3:30 – 4:00am” Harrison  | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>   |
| 72. | 17 April 2007 | Mine noise complaint – general                        | “Rang mine about noise after I got home from Toowoomba.” Harrison   | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>   |
| 73. | 18 April 2007 | Noise complaint – general                             | “Marg beat me to ring mine, they have quietened before I got to the phone. I was very tired from laying awake most of the night.”   | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21 [66] (<b>OCA.0215</b>)</li> </ul>  |
| 74. | 19 April 2007 | Mine noise complaint – general                        | “Rang mine about noise. Rang David Genn. I could not get the noise stopped at the mine. ...I tried to get the mine to come up to hear the noise by they did not come till at least 10am when it had quietened down. I ran David Genn about the noise and said I could not cope with the noise one having to ring up during the night.” Harrison | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>   |
| 75. | 23 April 2007 | Mine noise complaint (sleep disturbance) 1am          | “The mine had me up. Rang about 1am.” Harrison  | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>   |
| 76. | 3 May 2007    | Mine noise complaint (sleep disturbance) 12:30-3:30am | “Rang mine about noise 12:30pm. I was very tired after being up till 3:30am with all the mine’s trouble.” Harrison  | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>   |
| 77. | 4 May 2007    | Mine noise complaint – general                        |   | <ul style="list-style-type: none"> <li>• (DES Disclosure) See 20070904 Letter Complaint noise, dust Vibration – NAC (DES Response to complaint, but no complaint itself?)</li> </ul> |

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| 78. | 14 May 2007  | Mine noise complaint – general           |  | <ul style="list-style-type: none"> <li>• (DES Disclosure 20 October 2021) [Redacted] and the New Acland Coal (NAC) Mine_Redacted</li> </ul>  |
| 79. | 17 May 2007  | Mine noise complaint – general           |  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul>  |
| 80. | 25 May 2007  | Mine noise complaint - general           | NAC lodges mining lease application (MLA) 50232 under the Mineral Resources Act 1989 (Qld) MRA), being the for three expanded mine pits for Stage 3 of the New Acland Mine.  | <ul style="list-style-type: none"> <li>•</li> </ul>  |
| 81. | 15 June 2007 | Mine noise complaint – general           | “Noise bad. Too cold to ring....After we got home, the mine got very noisy, byt it was far too cold to get up and ring so will in morn.” Harrison  | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>   |
| 82. | July 2007    | Mine noise complaint – general           |  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul>  |
| 83. | 4 July 2007  | Mine noise complaint (sleep disturbance) | “Rang mine about noise. Did not get anyone. Found terrible noise from the mine. So tried to ring them. They did not answer, left a message. The noise went all night.” Harrison  | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>   |
| 84. | 5 July 2007  | Mine noise complaint (sleep disturbance) | “Rang mine first up at 6am about noise all night.” Harrison  | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>   |
| 85. | 5 July 2007  | Mine noise complaint – general           | “...New Acland Coal has received a number of complaints from [redacted] over the past few years with regards to dust and noise, with the latest received on Thursday 5/7/7. At 6am she rang about noise from the mine saying that she had had difficulty sleeping that night.” | <ul style="list-style-type: none"> <li>• (DES Disclosure) 20070709 Email (A Cleary) re complaint – NAC</li> <li>• (DES Disclosure) See also 20020724 Email (A Cleary)</li> <li>• (DES Disclosure) See also 200727 Letter (A Cleary) complaint (Response from NAC)</li> </ul> |

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|     |                   |  |   | <ul style="list-style-type: none"> <li>• (DES Disclosure 20 October 2021) Harrison Complaint Noise Dust TWB741 Vol 13_Redacted</li> </ul>        |
| 86. | September 2007    | Mine noise complaint (sleep disturbance) | Undated complaint made prior to 10 September, complainant redacted. Resulted in David Moore conducting a noise assessment at the residence, showing exceedances – 40.1 from 12:09am – 1:09am, and 42.1 from 1:09 am to 2am. | <ul style="list-style-type: none"> <li>• (DES Disclosure) 20070920 Letter Exception Report – noise complaint - NAC</li> </ul>                    |
| 87. | September 2007    | Mine noise – general                     | Multiple undated complaints prior to 25 September, from the same residence. Residence redacted.   | <ul style="list-style-type: none"> <li>• (DES Disclosure) 20070925 Letter (CHill) Complaints - NAC</li> </ul>                                    |
| 88. | 5 September 2007  | Mine noise - general                     | “Mine noise – shut window.” Harrison  | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>   |
| 89. | 8 September 2007  | Mine noise (sleep disturbance)           | “Mine woke me – noisy. Shut window.” Harrison   | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>   |
| 90. | 9 September 2007  | Mine noise (sleep disturbance)           | “Mine woke me with noise. Shut window.” Harrison  | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>   |
| 91. | 10 September 2007 | Mine noise (sleep disturbance)           | “Mine noise most of the night. Shut window. The mine was very loud.” Harrison   | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>   |
| 92. | 11 September 2007 | Mine noise complaint (sleep disturbance) | “Rang mine about approx. 4:30pm about the night – very noisy most of the night. I rang the mine just before 5pm but I could not get Laura.” Harrison  | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>   |
| 93. | 11 September 2007 | Mine noise complaint – general           |   | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul>                          |
| 94. | 11 September 2007 | Mine noise complaint - general           | Complaint by Mr Beutel alleging noise nuisance for 2 years and stating that Mr  | <ul style="list-style-type: none"> <li>• 20070911 Complaint Form – NAC N297 (<b>TMP.0215</b>)</li> <li>• TWB741 Vol 14 (44001-000236)</li> </ul> |

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|      |                   |  | Moore drove to Mr Beutel's house and found mine over limit.  |  |
| 95.  | 12 September 2007 | Mine noise complaint (sleep disturbance) | "Rang Laura at mine 9am about noise. Rang mine 9:30pm. Rang Amanda Cleary [DES] She not there...Noise of the mine was bad at 9:30pm when I went to go to bed. Rang mine. It took until 10:40pm for it to ease enough for me to go to sleep.." Harrison     | <ul style="list-style-type: none"> <li>Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>   |
| 96.  | 14 September 2007 | Mine noise complaint (sleep disturbance) | "Rang the mine about noise 5am. Tony came and monitored but down the road not at our gate. They got a 76 [db] reading at the gate." Harrison   | <ul style="list-style-type: none"> <li>Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>   |
| 97.  | 17 September 2007 | Mine noise complaint – general           | "LM [Laura Morris of NAC] said that the noise consultant had taken a measurement at [redacted] residence on the night of 10-11 September at the request of [redacted] and had notified NAC that the mine was in non compliance with the noise conditions." | <ul style="list-style-type: none"> <li>(DES Disclosure) 20070917 File Note – Complaint – NAC (Actual complaint is partially missing, FN records response from NAC).</li> </ul> |
| 98.  | 17 September 2007 | Mine noise complaint – general           | "Rang Laura about noise and dust about 9am." Harrison  | <ul style="list-style-type: none"> <li>Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>   |
| 99.  | 21 September 2007 | Mine noise (sleep disturbance) 4am       | "The mine got noisy about 4am but I shut the window and got some sleep so I did not ring at all." Harrison   | <ul style="list-style-type: none"> <li>Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>   |
| 100. | 22 September 2007 | Mine noise (sleep disturbance) 4am       | "Mine got noisy at 4am. Shut the window and did not ring up." Harrison   | <ul style="list-style-type: none"> <li>Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>   |
| 101. | 25 September 2007 | Mine noise complaint (sleep disturbance) | "Rang mine at 12:05am – noise." Harrison   | <ul style="list-style-type: none"> <li>Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>   |
| 102. | 25 September 2007 | Mine noise complaint – general           |  | <ul style="list-style-type: none"> <li>Ex 1226/ TWB741 Vol 14 (44001-000236)</li> </ul>  |

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| 103. | 26 September 2007 | Mine noise complaint (sleep disturbance)        | "Mine work me at 1:45am. Shut all the windows. Rang Laura at 8:30am. Only got Rebecca." Harrison   | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>  |
| 104. | 1 October 2007    | Mine noise complaint – general                  |  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (OCA.0015)</li> </ul>  |
| 105. | 2 October 2007    | Mine noise complaint (sleep disturbance)        | "Just to let you know that [redacted] contacted David Moore last night (between 0030 – 0230 on 3/10/07) concerning noise from Acland Mining operations"                            | <ul style="list-style-type: none"> <li>• (DES Disclosure) 20071002 Email – Nosie Assess – NAC</li> <li>• (DES Disclosure) 20071010 Email – Noise Report 20071002 - NAC</li> </ul>               |
| 106. | 2 October 2007    | Mine noise (sleep disturbance) 1:10am           | "Mine got loud 1:10am. Did not ring but shut window." Harrison   | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>  |
| 107. | 4 October 2007    | Mine noise (sleep disturbance) 3:15am           | "Dusty morning and all day. Woke me at 3:15am and noise worried me the rest of the night. Because of the noise from 3:15am I have been very tired all day." Harrison               | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>  |
| 108. | 6 October 2007    | Mine noise complaint (sleep disturbance) 2:40am | "I rang David Moore 2:40am. Only got message bank. Left phone number." Harrison  | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>  |
| 109. | 9 October 2007    | Mine noise complaint (sleep disturbance) 2:30am | "Rang David at 2:30am, but he could not come out so I shut the windows and got a LITTLE sleep." Harrison   | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>  |
| 110. | 12 October 2007   | Mine noise (sleep disturbance) 4am              | "Has noisy night – bad from 4am." Harrison   | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>  |
| 111. | 14 October 2007   | Mine noise complaint (sleep disturbance)        | "Rang mine about ...noise 9:10pm. Monitored outside bedroom. Went to go to bed at 9pm. Noise bad. Rang mine and from bedroom window it went from 40 decibels up to 63-4." Harrison | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> <li>• (DES Disclosure 20 October 2021) Harrison Complaint Noise Dust TWB741 Vol 13_Redacted</li> </ul> |

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| 112. | 15 October 2007 | Mine noise (sleep disturbance)                           | "Mine noise. I was tired from not having much sleep from the mine noise again. It eased but got bad twice but lowered the sound before I got up to ring." Harrison  | <ul style="list-style-type: none"> <li>Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>                        |
| 113. | 15 October 2007 | Mine noise complaint (sleep disturbance)                 |   | <ul style="list-style-type: none"> <li>Ex 118 TMP.0217</li> </ul>   |
| 114. | 15 October 2007 | Mine noise complaint (sleep disturbance)                 | <p>"I checked with the site about last night's complaint from the [redacted] residence. The spot noise reading recorded at 9:35pm outside the [redacted] bedroom window was 47 – 48dB. ...He made a note on the complaints file that he spoke with [redacted] for about 30mins at the time of the reading..."</p> | <ul style="list-style-type: none"> <li>(DES Disclosure) 20071015 Email Complaint NAC</li> </ul>                     |
| 115. | 17 October 2007 | Mine noise complaint (sleep disturbance) 1:20am - 4:30am | <p>"Rang mine 2am, only got message bank. The noise got bat at 1:20am ....It kept slowly getting louder until 4:30am then louder still." Harrison</p>   | <ul style="list-style-type: none"> <li>Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>                        |
| 116. | 22 October 2007 | Mine noise complaint – general                           | <p>"Continual noise, but more a problem at night when we have trouble sleeping &amp; can't hear what is happening on our property to prevent dog attacks on our live stock."</p>  | <ul style="list-style-type: none"> <li>(DES Disclosure) 20071101 Letter Complaint Nosie &amp; Dust – NAC</li> </ul> |
| 117. | 22 October 2007 | Mine noise complaint (sleep disturbance)                 | <p>"...wind was blowing all that noise her way and after dust during the day she wanted a good nights sleep..."</p>   | <ul style="list-style-type: none"> <li>N287 Redacted Complaints register compiled by NAC (OCA.0015)</li> </ul>      |
| 118. | 29 October 2007 | Mine noise (sleep disturbance) 2am                       | <p>"Mine got loud at 2am. The mine was getting loud when I went to bed. Shut the window. It still woke me at least twice." Harrison</p>   | <ul style="list-style-type: none"> <li>Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>                        |
| 119. | 2 November 2007 | Mine noise (sleep disturbance) 5:15am                    | <p>"Mine got loud at 5:15am." Harrison</p>  | <ul style="list-style-type: none"> <li>Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>                        |

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| 120. | 17 December 2007 | Mine noise - general                     | "Mine getting louder." Harrison  | • Affidavit of Pamela Harrison sworn 4.08.21                   |
| 121. | 7 January 2008   | Mine noise (sleep disturbance)           | "Mine loud most of night. The mine kept me awake more of the night so slept in." Harrison  | • Affidavit of Pamela Harrison sworn 4.08.21                   |
| 122. | 6 February 2008  | Mine noise (sleep disturbance)           | "The noise was getting loud and kept up all night." Harrison   | • Affidavit of Pamela Harrison sworn 4.08.21                   |
| 123. | 7 February 2007  | Mine noise complaint – general           | "I rang Laura ... and told her about the noise." Harrison  | • Affidavit of Pamela Harrison sworn 4.08.21                   |
| 124. | 2 May 2008       | Mine noise complaint - general           | "Rang mine about noise. They told me they could not stop it." Harrison   | • Affidavit of Pamela Harrison sworn 4.08.21                   |
| 125. | 6 May 2008       | Mine noise complaint – general           | "Rang Ross Bennett, but only got answering machine. He did not ring back. The mine told me I had to ring during the daytime about the noise." Harrison | • Affidavit of Pamela Harrison sworn 4.08.21                   |
| 126. | 20 May 2008      | Mine noise (sleep disturbance) 4:20am    | "The mine got noisy this monrnning around 4:20am. Mine noisy from 4:30am." Harrison  | • Affidavit of Pamela Harrison sworn 4.08.21                   |
| 127. | 27 May 2008      | Mine noise complaint – general           |  | • N287 Redacted Complaints register compiled by NAC (OCA.0015) |
| 128. | 22 August 2008   | Mine noise (sleep disturbance)           | "Rang mine about noise before going to bed at 9am. The noise of the mine was terrible so range before going to bed." Harrison                          | • Affidavit of Pamela Harrison sworn 4.08.21                   |
| 129. | 23 October 2008  | Mine noise – general                     | "Last night, rang mine at 9:15pm. Only got message and complained about dust all day and the noise."   | • Affidavit of Pamela Harrison sworn 4.08.21 [193]             |
| 130. | 22 November 2008 | Mine noise –general                      | "The noise of the mine was loud but did not ring." Harrison  | • Affidavit of Pamela Harrison sworn 4.08.21                   |
| 131. | 14 December 2008 | Mine noise complaint (sleep disturbance) | "I rang at 10pm about the noise." Harrison   | • Affidavit of Pamela Harrison sworn 4.08.21                   |

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| 132. | Undated 2009  | Mine noise complaint (sleep disturbance) | "Received a call from [redacted] regarding noise last night..."  | <ul style="list-style-type: none"> <li>N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul>   |
| 133. | 5 March 2009  | Mine noise (sleep disturbance)           | "Noise annoyed me in bed. The noise...was very bad when I got home." Harrison  | <ul style="list-style-type: none"> <li>Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>  |
| 134. | 10 March 2009 | Mine noise complaint – general           |  | <ul style="list-style-type: none"> <li>20090727 Letter Noise &amp; Dust Complaint - NAC</li> </ul>  |
| 135. | 17 March 2009 | Mine noise complaint (sleep disturbance) |  | <ul style="list-style-type: none"> <li>N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul>   |
| 136. | 2 April 2009  | Mine noise (sleep disturbance)           | "noise coming up under pillow...I was very seedy after not getting much sleep..." Harrison                                       | <ul style="list-style-type: none"> <li>Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>  |
| 137. | 16 April 2009 | Mine noise complaint (sleep disturbance) | "Rang mine 9:15pm and left message. Rang again 9:50pm left message. Frank rang back 10:20. They cut the noise down...." Harrison | <ul style="list-style-type: none"> <li>Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>  |
| 138. | 20 April 2009 | Mine noise complaint (sleep disturbance) | "Rang mine at 2am and got Mark about the noise." Harrison  | <ul style="list-style-type: none"> <li>Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>  |
| 139. | 30 April 2009 | Mine noise complaint (sleep disturbance) | "Rang mine 9:45pm for John Thompson complained about the noise." Harrison  | <ul style="list-style-type: none"> <li>Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>  |
| 140. | 14 May 2009   | Mine noise complaint (sleep disturbance) | "Rang mine 10:430pm. Noise..." Harrison  | <ul style="list-style-type: none"> <li>Affidavit of Pamela Harrison sworn 4.08.21</li> <li>(DES Disclosure 20 October 2021) Harrison Complaint Noise Dust TWB741 Vol 13_Redacted</li> </ul> |
| 141. | 4 June 2009   | Mine noise (sleep disturbance) 3am       | "Mine got very noisy and woke up about 3am." Harrison  | <ul style="list-style-type: none"> <li>Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>  |
| 142. | 5 June 2009   | Mine noise (sleep disturbance) 4am       | "Mine woke me about 4am...." Harrison  | <ul style="list-style-type: none"> <li>Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>  |

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| 143. | 6 June 2009    | Mine noise complaint (sleep disturbance) 4am    | "Mine woke me 4am, very noisy. Rang mine 9:10pm about noise, got Tony." Harrison   | • Affidavit of Pamela Harrison sworn 4.08.21                            |
| 144. | 9 June 2009    | Mine noise (sleep disturbance) 4:30am           | "Got woken up by mine 4:30am (approx.)." Harrison  | • Affidavit of Pamela Harrison sworn 4.08.21                            |
| 145. | 10 June 2009   | Mine noise (sleep disturbance) 3am              | "Got woken up at 3am with mine again." Harrison  | • Affidavit of Pamela Harrison sworn 4.08.21                            |
| 146. | 16 June 2009   | Mine noise complaint (sleep disturbance) 9:05pm | "Rang mine 9:05pm about noise." Harrison   | • Affidavit of Pamela Harrison sworn 4.08.21                            |
| 147. | 26 June 2009   | Mine noise (sleep disturbance)                  | "The mine noise was bad and I up most of the night ( <i>sic</i> ). Did not ring." Harrison   | • Affidavit of Pamela Harrison sworn 4.08.21                            |
| 148. | 21 July 2009   | Mine noise complaint – general                  | Should have Local Issue Form   | • N287 Redacted Complaints register compiled by NAC ( <b>OCA.0015</b> ) |
| 149. | 23 July 2009   | Mine noise complaint (sleep disturbance) 4am    | "Noise work me 4am." Harrison  | • Affidavit of Pamela Harrison sworn 4.08.21                            |
| 150. | 23 July 2009   | Mine noise complaint – general                  | Should have Local Issue Form   | • N287 Redacted Complaints register compiled by NAC ( <b>OCA.0015</b> ) |
| 151. | 24 July 2009   | Mine noise (sleep disturbance) 3am              | "Woken 3am noise." Harrison  | • Affidavit of Pamela Harrison sworn 4.08.21                            |
| 152. | 25 July 2009   | Mine noise (sleep disturbance) 3:45am           | "Woken 3:45am with noise." Harrison  | • Affidavit of Pamela Harrison sworn 4.08.21                            |
| 153. | 26 July 2009   | Mine noise (sleep disturbance) 1:45am           | "Woken 1:45am with noise." Harrison  | • Affidavit of Pamela Harrison sworn 4.08.21                            |
| 154. | 12 August 2009 | Mine noise complaint (sleep disturbance) 5:30am | "...excessive for most of the night, more so in the morning."  | • N287 Redacted Complaints register compiled by NAC ( <b>OCA.0015</b> ) |
| 155. | 13 August 2009 | Mine noise complaint – general                  | "Mine...noise and dust bad when we got home. Rang mine 8pm, got Cam. Rang mine 10:15, noise still bad. Got Cam all 3 times,...Noise terrible and dust so bad I | • Affidavit of Pamela Harrison sworn 4.08.21                            |

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|      |                   |   | had to put mask onto unpack car. Rang mine 8pm and complained to Cam about the lot. He is the first person to agree with me in 7 years." Harrison |   |
| 156. | 13 August 2009    | Mine noise complaint (sleep disturbance)        | "...she couldn't sleep and that the excessive noise was making her unwell."   | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 157. | 13 August 2009    | Mine noise complaint – general                  |   | <ul style="list-style-type: none"> <li>• Ex 1226/ TWB741 Vol 14 (44001-000236)</li> </ul>                               |
| 158. | 21 August 2009    | Mine noise (sleep disturbance)                  | "I got woken in small hours with noise." Harrison   | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>                          |
| 159. | 17 September 2009 | Mine noise complaint – general                  | "Mine loud noise. David Moore here."  | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>                          |
| 160. | 24 September 2009 | Mine noise (sleep disturbance)                  | "Noise not good overnight." Harrison  | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>                          |
| 161. | 1 October 2009    | Mine noise (sleep disturbance) 12:30am          | "The noise was bad coming through the pillow of the night. I got no sleep from 12:30am." Harrison   | <ul style="list-style-type: none"> <li>• Affidavit of Pamela Harrison sworn 4.08.21</li> </ul>                          |
| 162. | 12 November 2009  | Mine noise complaint – general                  |   | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 163. | 18 November 2009  | Mine noise complaint (sleep disturbance) 4:30am | "...noise exceeding limits and waking him up."  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 164. | 29 November 2009  | Mine noise complaint – general                  | "Noise from 7am this morning (Crunch-Grind)...was very upset and yelling in the phone, and came across aggressive."                               | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 165. | 30 November 2009  | Mine noise complaint – general 6:30am           |   | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |

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| 166. | 19 January 2010  | Mine noise complaint (sleep disturbance)         | "...(trying to sleep). Message was left on OCE phone...not found until day shift."   | <ul style="list-style-type: none"> <li>N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 167. | 29 January 2010  | Mine noise complaint – general                   |  | <ul style="list-style-type: none"> <li>Ex 1226/ TWB741 Vol 14 (44001-000236)</li> </ul>                               |
| 168. | 22 February 2010 | Mine noise complaint (sleep disturbance) 11:57pm | "...a bit noisy tonight..."  | <ul style="list-style-type: none"> <li>N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 169. | 24 February 2010 | Mine noise complaint (sleep disturbance) 2:30am  | "Can we keep the noise down."  | <ul style="list-style-type: none"> <li>N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 170. | April 2010       | Mine noise complaint (sleep disturbance)         | "Noise at night over the last couple of weeks is getting worse"  | <ul style="list-style-type: none"> <li>N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 171. | 8 April 2010     | Mine noise complaint (sleep disturbance) 12:52am | "...is being woken by the noise and [redacted] is having trouble sleeping."  | <ul style="list-style-type: none"> <li>N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 172. | 20 May 2011      | Mine noise complaint (sleep disturbance)         | "...is deafening...Noise is greater than: washing machine and dryer combined, yelling conversation. Even though we are compliant doesn't change the fact that they have to live with it. Cannot sleep properly sometimes." | <ul style="list-style-type: none"> <li>N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 173. | 27 May 2011      | Mine noise complaint (sleep disturbance)         | "Refer to113005 noise complaint emails and monitoring for 112705.pdf"  | <ul style="list-style-type: none"> <li>N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |
| 174. | 15 June 2011     | Mine noise complaint – general                   | DERM informed NAC of complaint – "he [DERM staff] believes he [complainant] is in the process of planning a legal attack on us..."   | <ul style="list-style-type: none"> <li>N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul> |

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| 175. | 11 August 2011        | Mine noise complaint – general                      |  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (OCA.0015)</li> </ul>   |
| 176. | 19 August 2011        | Mine noise complaint (sleep disturbance)            | “...woken up and kept awake by noise from the mine even though we had every window in the house (and all doors) shut and had heaters on and a steamer which provided a bit of white noise...2 year old, completely unprompted ...said “it’s too noisy”...” | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (OCA.0015)</li> </ul>   |
| 177. | 21 September 2011     | Mine noise complaint – general                      | Should have Local Issue Form   | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (OCA.0015)</li> <li>• Two entries for 21 September</li> </ul> |
| 178. | 21 September 2011     | Mine noise complaint – general                      | “...received by mine personnel from a nearby resident...”  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (OCA.0015)</li> <li>• Two entries for 21 September</li> </ul> |
| 179. | 5 October 2011        | Mine noise complaint – general                      | Letter to the Explosive Inspectorate about fume (No DERM jurisdiction) – “I refer to a complaint received ...on 5 October 2011, ... raises concerns about noise, vibration and fume events from blasting ...”  | <ul style="list-style-type: none"> <li>• (DES Disclosure) 20111014 Letter (from S Horton to Ms Costello) re complaint NAC</li> </ul>                     |
| 180. | February – March 2012 | Mine noise complaint (sleep disturbance) (multiple) | Noise Log Sheet, unsigned, address/name redacted.<br>“restless sleep kids cried agitated, tired and cranky, stressed, drowned out birdsong in morning...”  | <ul style="list-style-type: none"> <li>• (DES Disclosure) 20012 Noise Log Sheet - NAC</li> </ul>   |
| 181. | February 2012         | Mine noise complaint – general                      | Meeting with DERM regarding long-running complaint<br>“...noise at its worst at night when trucks dump out of pit and at the wash  | <ul style="list-style-type: none"> <li>• (DES Disclosure) 20120228 File Note Meeting to discuss Complaint - NAC</li> </ul>                               |

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|      |              |  | [redacted] and ROM, Horns are still sounding a few times a night, stated she thinks reversing beepers have only been changed on trucks and not on loaders and dozers...”  |   |
| 182. | March 2012   | Mine noise complaint – general           | <p>“...we didn’t know that we needed to complain to DERM to get anything to happen. Letter from the mine ...always said things like “All results above NAC’s EA noise limit...have been reported to DERM...the mine has very strongly pushed calling their complaints line instead and there has never to my knowledge been any mention of needed to also complain to DERM.”</p> <p>Redacted complainant asks when her complaint was provided to NAC, as she believes that it impacted the way NAC dealt with her. DERM says that it isn’t allowed to provide that information.</p> | <ul style="list-style-type: none"> <li>• (DES Disclosure) 20120309 Impacts at Muldu and Acland – NAC.</li> <li>• (DES Disclosure) See also 20120308 Email Impacts at Muldu and Acland - NAC</li> </ul>            |
| 183. | 4 March 2012 | Mine noise complaint (sleep disturbance) | <p>“frequently interfered with sleep eg even tonight it isn’t possible to sleep with the windows open...”</p> <p>From DERM “...you are right complaints don’t just have to be on a form and may be submitted by phone or email...”</p>  | <ul style="list-style-type: none"> <li>• (DES Disclosure) 20120308 Email Impacts at Muldu and Acland – NAC</li> <li>• (DES Disclosure) See also 20120309 Impacts at Muldu and Acland – NAC.</li> <li>•</li> </ul> |
| 184. | 4 March 2012 | Mine noise complaint (sleep disturbance) | Email chain between NAC and redacted complainant “...we are still being disrupted by beepers as well as machinery noise and even tonight, for example, it is too noisy to sleep with the windows open.”   | <ul style="list-style-type: none"> <li>• (DES Disclosure) 20120305 Email Meeting location NAC</li> </ul>  |

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|      |                   |                                | NAC – “I have not been able to locate any contact you made through our complaint system. I will keep investigating...”<br>Complainant “You know it’s noisy enough to disturb sleep here more often than not. ...I have phoned the complaint number numerous times and have yet to have any success. Indeed the number has rarely been answered. I raised with Tom the issue of the complaint I made to the number soon after Christmas when the noise was unbearable. ...Tom said he’d look into it ...hasn’t been any response.” |   |
| 185. | 8 March 2012      | Mine noise complaint – general |   | <ul style="list-style-type: none"> <li>• Ex 1226/ CR53824</li> </ul>  |
| 186. | 8 March 2012      | Mine noise complaint – general |   | <ul style="list-style-type: none"> <li>• CR53824</li> <li>• Unredacted DES Ecotrack 2006 - 2020</li> </ul>                        |
| 187. | 12 July 2012      | Mine noise complaint – general |   | <ul style="list-style-type: none"> <li>• Ex 1226/ SWR/090536 (pt 3)</li> </ul>  |
| 188. | 12 July 2012      | Mine noise complaint – general |   | <ul style="list-style-type: none"> <li>• (DES Disclosure) 20120918 Letter Noise, dust, Water pollution complaint - NAC</li> </ul> |
| 189. | 11 August 2012    | Mine noise complaint – general |   | <ul style="list-style-type: none"> <li>• Ex 1226/ TWB8010 Vol 3 /CR55435</li> </ul>   |
| 190. | 16 August 2012    | Mine noise complaint – general | <p>“...noise pollution due to heavy machinery and blasting.”</p> <p>“Complainant asked to complete noise logging sheets.”</p> <p>“As noise logging sheets were not received from complainant by requested date of 5 April 2013, complaints has been closed.”</p>  | <ul style="list-style-type: none"> <li>• 20120816 Complaint Report Details CR55435 JLRF</li> </ul>                                |
| 191. | 13 September 2012 | Mine noise complaint –general  |   | <ul style="list-style-type: none"> <li>• Ex 1226/ SWR/090536 (pt 3)</li> </ul>  |
| 192. | 16 September 2012 | Mine noise complaint –general  |   | <ul style="list-style-type: none"> <li>• Ex 1226/ SWR/090536 (pt 3)</li> </ul>  |

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| 193. | 10 October 2012  | Mine noise complaint –general                      |   | <ul style="list-style-type: none"> <li>Ex 1226/ SWR/090536 (pt 3)</li> </ul>  |
| 194. | 16 October 2012  | Mine noise complaint –general                      |   | <ul style="list-style-type: none"> <li>Ex 1226/ SWR/090536 (pt 3)</li> </ul>  |
| 195. | 14 November 2012 | Mine noise complaint –general                      |   | <ul style="list-style-type: none"> <li>Ex 1226/ SWR/090536 (pt 3)</li> </ul>  |
| 196. | 22 January 2013  | Mine noise complaint –general                      |   | <ul style="list-style-type: none"> <li>Ex 1226/ SWR/090536 (pt 3)</li> </ul>  |
| 197. | 4 February 2013  | Mine noise complaint –general                      |   | <ul style="list-style-type: none"> <li>Ex 1226/ SWR/090536 (pt 3)</li> </ul>  |
| 198. | 8 February 2013  | Mine noise complaint –general                      |   | <ul style="list-style-type: none"> <li>Ex 1226/ CR57800</li> <li>CR57800: Unredacted DES Ecotrack 2006 - 2020</li> </ul>                                    |
| 199. | 8 March 2013     | Mine noise complaint –general                      |   | <ul style="list-style-type: none"> <li>Ex 1226/ SWR/090536 (pt 4)</li> <li>CR57800: Unredacted DES Ecotrack 2006 - 2020</li> </ul>                          |
| 200. | 10 March 2013    | Mine noise complaint –general                      |   | <ul style="list-style-type: none"> <li>Ex 1226/ SWR/090536 (pt 4)</li> </ul>  |
| 201. | 15 March 2013    | Mine noise complaint (sleep disturbance) 9:40pm    | “extremely bad mine noise ... roaring, clanking and banging”            | <ul style="list-style-type: none"> <li>Ex 1345, TMP.0277 File Note R Brown dated 15 March 2013</li> <li>Ex 1226/ SWR/090536 (pt 4)</li> </ul>               |
| 202. | 9 April 2013     | Mine noise complaint (sleep disturbance) 9:34pm    | “at his wits end”   | <ul style="list-style-type: none"> <li>Ex 1346, TMP.0278 File Note R Brown dated 15 April 2013 <b>(TMP.0278)</b> (Ex 1346)</li> </ul>                       |
| 203. | 11 April 2013    | Mine noise complaint (sleep disturbance) 5:18am    |   | <ul style="list-style-type: none"> <li>Ex 1346, TMP.0279 File Note R Brown dated 15 April 2013 <b>(TMP.0278)</b> (Ex 1346)</li> </ul>                       |
| 204. | 12 April 2013    | Mine noise complaint (sleep disturbance) 8:35pm    |   | <ul style="list-style-type: none"> <li>Ex 1346, TMP.0279 File Note R Brown dated 15 April 2013 <b>(TMP.0278)</b> (Ex 1436)</li> </ul>                       |
| 205. | 25 April 2013    | Mine noise complaint (sleep disturbance) 2:46am    | “mine noise roaring”  | <ul style="list-style-type: none"> <li>130429 File Note - Complaint re noise - NAC <b>(TMP.0280)</b> Ex 1348</li> <li>Ex 1226/ SWR/090536 (pt 4)</li> </ul> |
| 206. | 26 April 2013    | Mine noise complaint (sleep disturbance) 7am – 8am |   | <ul style="list-style-type: none"> <li>130429 File Note - Complaint re noise - NAC <b>(TMP.0280)</b> Ex 1348</li> <li>Ex 1226/ SWR/090536 (pt 4)</li> </ul> |
| 207. | 27 April 2013    | Mine noise complaint (sleep disturbance) 8:31pm    | “... stated no one is ever available and asked when is it going to end” | <ul style="list-style-type: none"> <li>130429 File Note - Complaint re noise - NAC <b>(TMP.0280)</b> Ex 1348</li> </ul>                                     |

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|      |               |  |   | <ul style="list-style-type: none"> <li>Ex 1226/ SWR/090536 (pt 4)</li> </ul>  |
| 208. | 30 April 2013 | Mine noise complaint (sleep disturbance) 2:39am  | “mine noise roaring...extremely loud cacophony of noise”  | <ul style="list-style-type: none"> <li>File Note R Brown dated 1 May 2013 (<b>TMP.0287</b>) Ex 1354</li> <li>Ex 1226/ SWR/090536 (pt 4)</li> </ul>          |
| 209. | 1 May 2013    | Mine noise complaint (sleep disturbance) 2:27am  | “extremely bad mine noise”  | <ul style="list-style-type: none"> <li>Ex 1354, (<b>TMP.0287</b>) File Note R Brown dated 1 May 2013.</li> <li>Ex 1226/ SWR/090536 (pt 4)</li> </ul>        |
| 210. | 3 May 2013    | Mine noise complaint (sleep disturbance) 9:54pm  |   | <ul style="list-style-type: none"> <li>Ex 1349, File Note R Brown dated 6 May 2013. (<b>TMP.0281</b>)</li> <li>Ex 1226/ SWR/090536 (pt 4)</li> </ul>        |
| 211. | 9 May 2013    | Mine noise complaint (sleep disturbance) 4:42am  | “complaining (yelling) about the mine noise ...wanted the roaring from the mine to stop and was yelling that he wanted something done about it.”  | <ul style="list-style-type: none"> <li>Ex 1350, File Note of R Brown dated 9 May 2013. (<b>TMP.0282</b>)</li> <li>Ex 1226/ SWR/090536 (pt 4)</li> </ul>     |
| 212. | 11 May 2013   | Mine noise complaint (sleep disturbance) 8am     | “awful mine noise, saying nothing’s getting better and asking when is it going to stop”   | <ul style="list-style-type: none"> <li>130513 File Note - Complaint re noise - NAC Ex 1352 (<b>TMP.0284</b>)</li> <li>Ex 1226/ SWR/090536 (pt 4)</li> </ul> |
| 213. | 13 May 2013   | Mine noise complaint (sleep disturbance) 5am     | “left an undiscernible yelled message”  | <ul style="list-style-type: none"> <li>130513 File Note - Complaint re noise - NAC Ex 1352 (<b>TMP.0284</b>)</li> <li>Ex 1226/ SWR/090536 (pt 4)</li> </ul> |
| 214. | 16 May 2013   | Mine noise complaint (sleep disturbance) 1:50 am | “wanted to watch a show but couldn’t”   | <ul style="list-style-type: none"> <li>130517 Email EHP Complaint form - NACEmail to R Brown dated 17 May 2013. (<b>TMP.0286</b>) Ex 1353</li> </ul>        |
| 215. | 9 July 2013   | Mine noise complaint (sleep disturbance) 8:30pm  | “roaring and a clunk, clunk sound”<br>Clunking = “D11 bulldozer tracks” p9.   | <ul style="list-style-type: none"> <li>EHP Southern Region Compliance Investigations. (<b>TMP.0483</b>) Ex 1531, p.6</li> </ul>                             |
| 216. | 10 July 2013  | Mine noise complaint (sleep disturbance) 1am     | bad roaring<br>Roaring = “dump truck engines under load revving and using the gears to climb out of the pit” p9.<br>Banging = “excavator buckets emptying rocks into the dump trucks” p9. | <ul style="list-style-type: none"> <li>EHP Southern Region Compliance Investigations. (<b>TMP.0483</b>) Ex 1531, p.6</li> </ul>                             |

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| 217. | 11 July 2013          | Mine noise complaint (sleep disturbance) 1:30am; 1:45; 5:45 – 6am; 8pm – 9:30pm | Constant, moderate to very bad mine noise. | <ul style="list-style-type: none"> <li>EHP Southern Region Compliance Investigations. (TMP.0483) Ex 1531, p.6Ex 1529, (TMP.0481) Email to R Brown from C Puschmann dated 8 August 2013 – logging shows exceedances from 11pm – 12am. .</li> </ul> |
| 218. | 12 July 2013          | Mine noise complaint (sleep disturbance) 8:30pm                                 | Shift change noise                         | <ul style="list-style-type: none"> <li>Ex 1531, TMP.0483 p 6 EHP Southern Region Compliance Investigations. (TMP.0483)</li> </ul>   |
| 219. | 16 – 19 December 2013 | Mine noise complaint (sleep disturbance)  |  | <ul style="list-style-type: none"> <li>(DES Disclosure) 20131220 Email to EHP Ruth Brown RE Noise Complaint NAC</li> </ul>  |
| 220. | 18 December 2013      | Mine noise complaint (sleep disturbance)  | “very bad and he was unable to sleep”      | <ul style="list-style-type: none"> <li>File Note R Brown dated 20 December 2013 Ex 1358 (TMP.0291)</li> </ul>   |
| 221. | 19 December 2013      | Mine noise complaint (sleep disturbance)  | “high pitched whirring noise”              | <ul style="list-style-type: none"> <li>131220 File Note RE Noise Complaint regarding NAC Ex 1358 (TMP.0291) File Note R Brown dated 20 December 2013.</li> </ul>  |
| 222. | 20 December 2013      | Mine noise complaint – general  |  | <ul style="list-style-type: none"> <li>Ex 1226 / SWR/090536 (pt 6)</li> </ul>   |
| 223. | 6 January 2014        | Mine noise complaint (sleep disturbance)  |  | <ul style="list-style-type: none"> <li>Ex 1194 TMP.0499, File Note H Case of EHP dated 10 January 2014.</li> </ul>  |
| 224. | 7 January 2014        | Mine noise complaint (sleep disturbance)  |  | <ul style="list-style-type: none"> <li>Ex 1194 TMP.0499, File Note H Case of EHP dated 10 January 2014.</li> </ul>  |
| 225. | 18 January 2014       | Mine noise complaint (sleep disturbance) 6:18am                                 |  | <ul style="list-style-type: none"> <li>Ex 1195 TMP.0296, File Note R Brown dated 20 January 2014.</li> <li>Ex 1226 / SWR/090536 (pt 6)</li> </ul>   |
| 226. | 19 January 20214      | Mine noise complaint (sleep disturbance) 4:34am; 9:22pm                         |  | <ul style="list-style-type: none"> <li>Ex 1195 TMP.0296, File Note R Brown dated 20 January 2014.</li> </ul>  |

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|      |                 |  |   | <ul style="list-style-type: none"> <li>• Ex 1226 / SWR/090536 (pt 6)</li> </ul>   |
| 227. | 20 January 2014 | Mine noise complaint (sleep disturbance) 5am             | "...very distressed state and was screaming for the noise to stop." | <ul style="list-style-type: none"> <li>• Ex 1195 TMP.0296, File Note R Brown dated 20 January 2014.</li> <li>• Ex 1226 / SWR/090536 (pt 6)</li> </ul>                                       |
| 228. | 28 January 2014 | Mine noise complaint (sleep disturbance) 3:25am – 3:50am | "roaring and screeching"  | <ul style="list-style-type: none"> <li>• Ex 1362 TMP.0297, File Note R Brown (<b>TMP.0295</b>)</li> <li>• Ex 1226 / 101/0007030</li> </ul>  |
| 229. | 10 May 2014     | Mine noise complaint (sleep disturbance) 8pm – 9:30pm    |   | <ul style="list-style-type: none"> <li>• Ex 1569 TMP.0523 (mail T Sheppard to R Brown) (<b>TMP.0523</b>)</li> <li>• Ex 1226 / 101/0007030</li> </ul>  |
| 230. | 10-19 May 2014  | Mine noise complaint – sleep disturbance (multiple)      | "loud mine noises which at time disturbed sleep."                   | <ul style="list-style-type: none"> <li>• (DES Disclosure) 20140526 RE Noise complaint received 21 May</li> </ul>  |
| 231. | 16 May 2014     | Mine noise complaint (sleep disturbance) 6am – 8am       |   | <ul style="list-style-type: none"> <li>• Ex 1569 TMP.0523 (mail T Sheppard to R Brown) (<b>TMP.0523</b>)</li> <li>• Ex 1226 / 101/0007030</li> </ul>  |
| 232. | 17 May 2014     | Mine noise complaint (sleep disturbance) 6am – 8am       |   | <ul style="list-style-type: none"> <li>• 20140526 RE Noise complaint received 21 May msg Ex 1569 (mail T Sheppard to R Brown) (<b>TMP.0523</b>)</li> </ul>                                  |
| 233. | 18 May 2014     | Mine noise complaint (sleep disturbance) 8pm – 10pm      |   | <ul style="list-style-type: none"> <li>• 20140526 RE Noise complaint received 21 May msg Ex 1569 (mail T Sheppard to R Brown) (<b>TMP.0523</b>)</li> <li>• Ex 1226 / 101/0007030</li> </ul> |
| 234. | 19 May 2014     | Mine noise complaint 5:30pm – 6:30pm                     |   | <ul style="list-style-type: none"> <li>• Ex 1569 TMP.0523 (mail T Sheppard to R Brown) ) (<b>TMP.0523</b>)</li> <li>• Ex 1226 / 101/0007030</li> </ul>                                      |
| 235. | 1 June 2014     | Mine noise complaint (sleep disturbance) 7am – 8am       |   | <ul style="list-style-type: none"> <li>• Ex 1575 TMP.0299 (email T Sheppard NCA to R Brown) (<b>TMP.0529</b>)</li> <li>• Ex 1226 / 101/0007030</li> </ul>                                   |

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| 236. | 6 June 2014       | Mine noise complaint (sleep disturbance) 5:30am – 6:30am |   | <ul style="list-style-type: none"> <li>• Ex 1575 <b>TMP.0299</b> (email T Sheppard NCA to R Brown)</li> <li>• Ex 1226 / 101/0007030</li> </ul>   |
| 237. | 10 June 2014      | Mine noise complaint (sleep disturbance) 7am – 9am       |   | <ul style="list-style-type: none"> <li>• 140610 Email (from PALM to R Brown) Ex 1365 (<b>TMP.0299</b>)</li> <li>• 140612 Email (from N Di Certo to S Horton) Ex 1364 (<b>TMP.0300</b>)</li> </ul>  |
| 238. | 21-23 July 2014   | Mine noise complaint (general roaring, banging)          | “awful”, “as bad as it gets”<br>“dependent on air movement when there is a NE or E wind or if there is a temperature inversion” | <ul style="list-style-type: none"> <li>• Ex 1366 <b>TMP.0301</b> - (File note R Brown, Ref 101/0007030, dated 23 July)</li> <li>• Ex 1380 <b>TMP.0315</b> - Email S Horton to R Brown</li> <li>• Ex 1226 / 101/0006870 / nCR63753</li> </ul> |
| 239. | 10 August 2014    | Mine noise complaint – general                           |   | <ul style="list-style-type: none"> <li>• Ex 1226 / 101/0007030</li> </ul>  |
| 240. | 11 August 2014    | Mine noise complaint - general                           |   | <ul style="list-style-type: none"> <li>• Email to R Brown and S Horton (received 12/8/2-14) Ex 1368 (<b>TMP.0303</b>)</li> </ul>   |
| 241. | 20 August 2014    | Mine noise complaint – general                           |   | <ul style="list-style-type: none"> <li>• Ex 1226 / 101/0007030</li> </ul>  |
| 242. | 20 August 2014    | Mine noise complaint – general                           |   | <ul style="list-style-type: none"> <li>• Ex 1585 TMP.0541</li> </ul>   |
| 243. | 21-23 August 2014 |  |   | <ul style="list-style-type: none"> <li>• File note R Brown Ex 1366 (<b>TMP.0301</b>)</li> </ul>  |
| 244. | 7-9 December 2014 | Mine noise complaint – general                           | “unbearable and made his dog bark.”   | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul>  |
| 245. | 23 March 2015     | Mine noise complaint – general                           | “Nuisance at sleep time”  | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul>  |
| 246. | 28 May 2015       | Mine noise complaint (sleep disturbance) 10:07pm         |   | <ul style="list-style-type: none"> <li>• N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul>  |

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| 247. | 25-27 August 2015 | Mine noise complaint (sleep disturbance) |   | <ul style="list-style-type: none"> <li>N287 Redacted Complaints register compiled by NAC (<b>OCA.0015</b>)</li> </ul>                                      |
| 248. | October 2015      | Objections to EAA and ML                 |   | <ul style="list-style-type: none"> <li><b>F.0001</b> (Referral Docs)</li> </ul>  |
| 249. | 20-21 May 2016    | Mine noise complaint – general           |   | <ul style="list-style-type: none"> <li>Letter from EHP to NAC re complaint regarding noise on 21 May 2016 N3S, 2 (<b>OCA.0032</b>)</li> </ul><br>(Event 1) |
| 250. | 18 July 2016      | Mine noise complaint – general           | Beutel  | <ul style="list-style-type: none"> <li>CR74171: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 251. | 25 January 2017   | Mine noise complaint (sleep disturbance) | “...all night disturbed sleep even when all double glazed windows were closed”<br>Mason   | <ul style="list-style-type: none"> <li>CR76991: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 252. | 4-5 August 2017   | Mine noise complaint – general           |   | <ul style="list-style-type: none"> <li>Email from EHP to NAC notifying of noise complaint (<b>OCA.0046</b>) (N3S, 14)</li> </ul>                           |
| 253. | 7 August 2017     | Mine noise complaint – general           | Mason   | <ul style="list-style-type: none"> <li>CR79905: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 254. | 25 August 2017    | Mine noise complaint (sleep disturbance) | “...last night was noisy again this morning 24 and 25 <sup>th</sup> August 2017 This is not the only time We are all tired and stressed as we have to work each day with little or broken sleep. They are working in the west pit and this noise will be worse if they get stage three and shift they wash plant closer to us...” | <ul style="list-style-type: none"> <li>CR80149: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 255. | 10 October 2017   | Mine noise complaint (sleep disturbance) | “...we went to go to bed the noise from the mine as ( <i>sic</i> ) really noise and hard to go to sleep. ... As the mine have still not got approval for stage three one would  | <ul style="list-style-type: none"> <li>CR90746: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |

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|      |                     |   | assume they would be on their best behaviour.”   |  |
| 256. | 18 October 2017     | Mine noise complaint – general                          | Mason  | <ul style="list-style-type: none"> <li>CR80882: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 257. | 27-28 December 2017 | Mine noise complaint – general                          | Noise complaints made to DES (CR81907) that culminate in the SLR Winter Survey AND eventually resulted in the PIN:   | <ul style="list-style-type: none"> <li>Statutory Party Decision memo re PIN (<b>OCA.0155</b>) (N4S94A),</li> <li>Letter from DES to NAC re community concern (noise) (<b>OCA.0052</b>) (N3S 18)</li> <li>CR81907: Unredacted DES Ecotrack 2006 - 2020</li> </ul> |
| 258. | January 2018        | Mine noise complaint - general                          | Complaints to DES and notified to NAC  | <ul style="list-style-type: none"> <li>Letter from DES to NAC re noise complaint (<b>OCA.0042</b>) (N3S 11),</li> <li>Letter from DES to NAC re community concern (noise) (<b>OCA.0052</b>)(N3S 18)</li> </ul>   |
| 259. | 21 April 2018       | Mine noise complaint (sleep disturbance) 11pm           | “...It is 11apm and I would like to get some sleep. After almost 2 decades one would assume that they either can’t or won’t improve...”  | <ul style="list-style-type: none"> <li>CR83396: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 260. | 26 April 2018       | Mine noise complaint (sleep disturbance) 9:37pm         | - "noise very bad" Beutel  | <ul style="list-style-type: none"> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul>   |
| 261. | 27 April 2018       | Mine noise – general                                    | <ul style="list-style-type: none"> <li>- "very noisy", "caterpillar" and "roaring" in my diary from 5pm to approximately 5.25pm;</li> <li>- "very loud roaring" from approximately 5.50pm to 6.40pm; and</li> <li>"moaning and groaning", "clunk clunk clunk" for 9.15pm Beutel</li> </ul> | <ul style="list-style-type: none"> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul>   |
| 262. | 29 April 2018       | Mine noise complaint (sleep disturbance) 6:50 – 7:05 am | - "Klank Klank and lots of Bangs" and "Very Bad" noise from 6.50am to 7.05am” Beutel   | <ul style="list-style-type: none"> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul>   |

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| 263. | 10 May 2018          | Mine noise complaint – general  | Beutel   | <ul style="list-style-type: none"> <li>CR93153: Unredacted DES Ecotrack 2006 - 2020</li> </ul>  |
| 264. | 13 May 2018          | Mine noise complaint (sleep disturbance) 2am  | “it is 2am on Sunday morning. Happy Mother’s day. The noise from Acland is of rocks crashing...I resent having to get out of bed in the cold to make this email and I am tired.” | <ul style="list-style-type: none"> <li>CR83646: Unredacted DES Ecotrack 2006 – 2020</li> <li>(DES Disclosure 20 October 2021) 167.20180606 Email in land court decision noise comments 101_0007030 Pt9 [marked]_Redacted</li> </ul> |
| 265. | 15 May 2018          | Mine noise complaint – general  | “...Moaning and groaning like a field of dying people...” Beutel   | <ul style="list-style-type: none"> <li>CR93152: Unredacted DES Ecotrack 2006 - 2020</li> </ul>  |
| 266. | 18 May 2018          | Mine noise complaint – general  | Beutel   | <ul style="list-style-type: none"> <li>CR93154: Unredacted DES Ecotrack 2006 - 2020</li> </ul>  |
| 267. | 20 May 2018          | Mine noise complaint – general  | Mason  | <ul style="list-style-type: none"> <li>CR83753: Unredacted DES Ecotrack 2006 - 2020</li> </ul>  |
| 268. | 23 May 2018          | Mine noise complaint – general  | “...Bad most of the day” Beutel  | <ul style="list-style-type: none"> <li>CR93160: Unredacted DES Ecotrack 2006 – 2020</li> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul>  |
| 269. | 30 May – 2 June 2018 | DES monitoring at Mason residence shows exceedance at 10pm on 30 May 2018 and notes 15 examples of impulsive noise. Also notes correction for tonality. Also notes mine noise close to 40dBA limit throughout the period. Concludes that noise has caused or likely causes nuisance at Mason family residence on 30 May 2018. | Note that SLR contests these findings on the basis that only a 2dBA correction for impulsive noise should be applied and no tonal adjustment among other things: N3S, 59A        | <ul style="list-style-type: none"> <li>New Acland Coal Mine Noise Monitoring Report Mason Residence – 30 May to June 2018 (<b>OCA.0063</b>, note paragraphs 11, 13, 26) (N97A)</li> </ul>   |
| 270. | 30 May 2019          | Mine noise complaint – general  | Beutel   | <ul style="list-style-type: none"> <li>CR93161: Unredacted DES Ecotrack 2006 - 2020</li> </ul>  |

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| 271. | 4 June 2018 | M Mine noise complaint (sleep disturbance) pre-7am | "Very loud mine noise" and "thousand moaning & groaning screaming dying people" around 7.00am and before and "bad noise" to approximately 8.15-8.30am"<br>"V[ery] Bad mine noise" 8.15 to 9.57pm"<br>Phoned the Pollution Hotline at around 7:30am<br>- Beutel | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul>   |
| 272. | 5 June 2018 | Mine noise complaint (sleep disturbance)           | "6:30am – Very bad ...10pm evening very bad past 10pm" Beutel  | <ul style="list-style-type: none"> <li>• CR93167: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 273. | 6 June 2018 | Mine noise complaint – general                     | "Very Bad", "lots of Bangs" at about 6:30am;<br>I phoned the Pollution Hotline "re mine noise" at about 7:45am; and "Roaring", "Banging", "10000 screams of dying people" from around 7:45am to 8:15am.<br>Beutel  | <ul style="list-style-type: none"> <li>• CR93170: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 274. | 7 June 2018 | Mine noise complaint – general                     | "V[ery] Bad Mine Noise" at around 4:56pm and "Noise Very Bad" at around 6:30pm to 9:30pm." Beutel  | <ul style="list-style-type: none"> <li>• CR93173: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 275. | 8 June 2018 | Mine noise complaint – general                     | "V[ery] bad noise" at around 6:30am - 8:15am and "bad" at 8:40am and 9:50am.<br>I later recorded "V[ery] bad noise" at around 5:40pm.<br>Beutel  | <ul style="list-style-type: none"> <li>• CR93175: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 276. | 9 June 2018 | Mine noise complaint – general                     | Beutel   | <ul style="list-style-type: none"> <li>• CR84015: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 277. | 9 June 2018 | Mine noise complaint – general                     | "...Noisy 7:15pm onwards" Beutel   | <ul style="list-style-type: none"> <li>• CR93176: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |

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| 278. | 10 June 2018 | Mine noise complaint (sleep disturbance) 6:15am        | "awful [noise] from? drilling. Clunk clunk. Roaring" from around 7:15am - 7:42am; "Noise bad", "Roaring" and "Klunk Klunk Klunk" around 6:00pm to 7:00pm; "Noise increasing", "whining/bangs" around 8:20pm; "Roaring" at 8:57pm; and "Bad noise" around 9:00-9:30pm"<br>Beutel | <ul style="list-style-type: none"> <li>• CR93178: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 279. | 11 June 2018 | Mine noise complaint (sleep disturbance) 6:30am        | "the mine noise was "bad" at 6:30; "very bad" at 8:30 - 8:50; and "extreme" at 9:08."<br>Beutel   | <ul style="list-style-type: none"> <li>• CR93182: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 280. | 12 June 2018 | Mine noise complaint (sleep disturbance) 6:30am        | "the mine noise was "v[ery] bad" at around 6:30am - 6:45am; "noisy Klunk" at around 5:40pm; and "Klunk Klunk Very Bad" around 6:38pm - 6:42pm, when the noise reduced suddenly."<br>Beutel  | <ul style="list-style-type: none"> <li>• CR93203: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 281. | 13 June 2018 | Mine noise complaint (sleep disturbance) 4:15 – 4:30am | "mine noise Very Bad" from around 6:45am" – inconsistent with Ecotrack?<br>Beutel   | <ul style="list-style-type: none"> <li>• CR93204: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 282. | 15 June 2018 | Mine noise complaint – general                         | Mason   | <ul style="list-style-type: none"> <li>• CR84382: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 283. | 16 June 2018 | Mine noise complaint – general                         | Mason   | <ul style="list-style-type: none"> <li>• CR84382: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 284. | 16 June 2018 | Mine noise complaint – general                         | "Very Bad Mine Noise" at around 6:45am - 8:15am"<br>Beutel  | <ul style="list-style-type: none"> <li>• CR93206: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |

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| 285. | 20 June 2018      | Mine noise complaint – general               | “...medium loud.” Beutel  | <ul style="list-style-type: none"> <li>• CR93207: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 286. | 21 June 2018      | Mine noise complaint – general               | <p>"Very Bad mine noise" at about 7:15am-around 8:10am;</p> <p>"Very Bad Blast" at 11:03am;</p> <p>"Very Bad noise" from around 9:14pm - 9:54pm including "lots of bangs, squeaks"; and</p> <p>I called the Pollution Hotline at around 9:54." Beutel</p> | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul>   |
| 287. | 21 June 2018      | Mine noise complaint – general               | Beutel  | <ul style="list-style-type: none"> <li>• CR84180: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 288. | 21 June 2018      | Mine noise complaint – general               | Beutel  | <ul style="list-style-type: none"> <li>• CR84199: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 289. | 22 – 24 June 2018 | Mine noise – general                         | “Recorded very bad mine noises and exhibited some of the videos ...in my first affidavit at paragraphs 55 – 65” - Beutel  | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul>   |
| 290. | 23 June 2018      | Mine noise complaint (sleep disturbance)     | “EXCESSIVE NOISE OF BANGING CLANKING AND WHOORING WOKE ME UP AT 6:30AM” Beutel  | <ul style="list-style-type: none"> <li>• CR84208: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 291. | 25 June 2018      | Mine noise complaint – general               | Beutel  | <ul style="list-style-type: none"> <li>• CR92467: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 292. | 30 June 2018      | Mine noise – general                         | “Very Bad mine(DRILL?) Noise...phoned the Pollution Hotline around 9:28pm” - Beutel   | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul>   |
| 293. | 3-4 July 2018     | Mine noise complaint (sleep disturbance) 3am | Mason   | <ul style="list-style-type: none"> <li>• CR84382: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 294. | 4 July 2018       | Mine noise complaint – general               | “very bad noise all day... I called the Pollution Hotline around 9:28pm” Beutel   | <ul style="list-style-type: none"> <li>• CR93208: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |

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| 295. | 5 July 2018   | Mine noise – general                         | mine very noise[y] most of the day."<br>Beutel   | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul>   |
| 296. | 6 July 2018   | Mine noise complaint – general               | V[ery] Bad noise" and "Lots of Banging"<br>from about 6:30pm - 11:00pm"<br>Beutel  | <ul style="list-style-type: none"> <li>• CR93210: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 297. | 7-8 July 2018 | Mine noise complaint (sleep disturbance) 3am | Mason  | <ul style="list-style-type: none"> <li>• CR84382: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 298. | 8 July 2018   | Mine noise complaint (sleep disturbance)     | “Also rocks falling into hopper and truck deliveries from 6:10am” Mason  | <ul style="list-style-type: none"> <li>• CR84382: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 299. | 9 July 2018   | Mine noise complaint (sleep disturbance)     | “The noise woke me at 3am today ... My daughter worked until 1am and said it was noisy then...”  | <ul style="list-style-type: none"> <li>• CR84383: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 300. | 9 July 2018   | Mine noise complaint – general               | Mason  | <ul style="list-style-type: none"> <li>• CR84382: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 301. | 9 July 2018   | Mine noise complaint – general               | Beutel   | <ul style="list-style-type: none"> <li>• CR93216: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 302. | 10 July 2018  | Mine noise complaint (sleep disturbance)     | “Mine noise early...Mine very bad at 7:50am – klunk klunk...” Beutel<br>Affidavit – “mine noise woke me at around 2:20am...”   | <ul style="list-style-type: none"> <li>• CR93219: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 303. | 11 July 2018  | Mine noise complaint – general               | “Mowing contractors next door but nothing to mow” Beutel   | <ul style="list-style-type: none"> <li>• CR93221: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 304. | 15 July 2018  | Mine noise complaint – general               | “V[ery] large bangs and mine noise" from around 6:30am;<br>I phoned the Pollution Hotline at around 6:47am; and<br>V[ery] Bad noise" at around 8:30pm - 10:00pm.” Beutel | <ul style="list-style-type: none"> <li>• CR84425: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 305. | 16 July 2018  | Mine noise complaint – general               | “V[ery] bad from around 7:05am - 8:40am. I called the Pollution Hotline at around 7:05am”  | <ul style="list-style-type: none"> <li>• CR84429: Unredacted DES Ecotrack 2006 – 2020</li> </ul>   |

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|      |              |  | Beutel  | <ul style="list-style-type: none"> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul>   |
| 306. | 17 July 2018 | Mine noise complaint (sleep disturbance) | "6:30am – 8am V bad mine noise. 47dBA at 06:00 – 07:00. 8L30 – 10pm Continuing" Beutel  | <ul style="list-style-type: none"> <li>CR93223: Unredacted DES Ecotrack 2006 – 2020</li> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 307. | 17 July 2018 | Mine noise complaint (sleep disturbance) | "very loud noise including low frequency nise ( <i>sic</i> ) Friday night" Mason  | <ul style="list-style-type: none"> <li>CR84465: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 308. | 18 July 2018 | Mine noise complaint – general           | "Very Bad mine noise" from before 6:30am - 7:00am; I phoned the Pollution Hotline at around 7:00am; and "Moaning & groaning banging Klunk Klunk Roaring" from around 8:15am." Beutel              | <ul style="list-style-type: none"> <li>CR84460: Unredacted DES Ecotrack 2006 – 2020</li> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 309. | 19 July 2018 | Mine noise complaint – general           | "ROARING CLUNKING BANGING"- Ecotrack V[ery] bad noise" at around 7:10am- 8:00am; I called the Pollution Hotline at around 8:00am; and "V[ery] Bad mine noise" from about 6:30pm - 7:15pm." Beutel | <ul style="list-style-type: none"> <li>CR84485: Unredacted DES Ecotrack 2006 – 2020</li> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 310. | 20 July 2018 | Mine noise complaint – general           | "Very bad mine noise" at around 6:54am - 7:30am. I called the Pollution Hotline" Beutel   | <ul style="list-style-type: none"> <li>CR84505: Unredacted DES Ecotrack 2006 – 2020</li> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 311. | 21 July 2018 | Mine noise complaint – general           | "recorded "mine noise very bad" at 9:15. I did not record whether this was AM or PM" Beutel   | <ul style="list-style-type: none"> <li>CR93226: Unredacted DES Ecotrack 2006 – 2020</li> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |

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| 312. | 22 July 2018      | Mine noise complaint – general   | “...Very Bad mine [noise]" from about 6:30am - 9:00am and made a number of entries at later times in the day when there was "Klunk Klunk" sounds; and I called the Pollution Hotline around 7:24am, 1 :32pm and 5:13pm.” Beutel | <ul style="list-style-type: none"> <li>• CR84543: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 313. | 23 July 2018      | Mine noise complaint – general   | “AWFUL NOISE FROM MINING ACTIVITIES IT NEVER STOPS...” Ecotrack<br>“V[ery] Bad Noise" from around 6:30am - 10:30am. I called the Pollution Hotline at around 7:35am”<br>Beutel  | <ul style="list-style-type: none"> <li>• CR84544: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 314. | 24 July 2018      | Mine noise complaint – general   | Beutel  | <ul style="list-style-type: none"> <li>• CR84558: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 315. | 28 July 2018      | Mine noise complaint (sleep disturbance)   | “Awoke to gunshot noises...” Beutel   | <ul style="list-style-type: none"> <li>• CR93229: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 316. | 29 July 2018      | Mine noise complaint – general 8-9am   | “...morning Very Bad noise" from before 8:00am - 8:30am.” Beutel  | <ul style="list-style-type: none"> <li>• CR93232: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 317. | 29 – 30 July 2018 | Mine noise complaint (sleep disturbance)   | “very loud noise including low frequency nise ( <i>sic</i> ) during Friday night... Mason   | <ul style="list-style-type: none"> <li>• CR84790: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 318. | 1 August 2018     | Mine noise complaint – general   | “Very bad” at about 7:15am.<br>Beutel   | <ul style="list-style-type: none"> <li>• CR93235: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 319. | 1 August 2018     | Mine noise complaint – general   | “Noise monitoring report alleging noise level exceedances...” Mason   | <ul style="list-style-type: none"> <li>• CR85000: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 320. | 2 August 2018     | Mine noise complaint (sleep disturbance) 12:30am – 2:00am; 6:00am – 6:45am...8:00 – 9:45pm | Bad mine Noise" from around 12:30am - 2:00am;<br>"moderate Bad [noise]" at around 6:00 - 6:30am;  | <ul style="list-style-type: none"> <li>• CR84728: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |

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|      |                   |                                | "very bad", and "Klunk Klunk Rattle Rattle Roar Bang" from about 6:30am -6:45am;<br>I rang the Pollution Hotline around 6:59am;<br>"Extreme" and "V(ery) Bad" noise from 7:20 - 8:15am;<br>"Noise Bad for most of the day";<br>"Very Bad [noise]" from about 5:30pm - 6:45pm; and<br>"Very large BANGS" and "extra large bangs" at various times from 8:00pm -9:45pm."<br>Beutel |  |
| 321. | 2 September 2018  | Mine noise complaint – general | Beutel   | <ul style="list-style-type: none"> <li>• CR85479: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 322. | 4 September 2018  | Mine noise complaint – general | "noisy [most of the] day" Beutel   | <ul style="list-style-type: none"> <li>• CR93236: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 323. | 5 September 2018  | Mine noise complaint – general | "Mine Very Bad noisy most of day" Beutel   | <ul style="list-style-type: none"> <li>• CR93237: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 324. | 6 September 2018  | Mine noise complaint – general | "Bad most of day except early afternoon; very bad in evening 20:30-21:15" – Ecotrack<br>"Bad most of the day except early afternoon"<br>and "V[ery] bad evening" Beutel  | <ul style="list-style-type: none"> <li>• CR93279: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 325. | 10 September 2018 | Mine noise complaint – general | "SOUNDS LIKE THOUSANDS OF DEAD PEOPLE MOANING..."(Beutel)  | <ul style="list-style-type: none"> <li>• CR85660: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |

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| 326. | 11 September 2018 | Mine noise complaint – general                                  | “Very bad in the morning; later in the day” (Beutel) Ecotrack<br>“mine noise very bad” from around 6.30am to 7am and later in the day.” - Beutel | <ul style="list-style-type: none"> <li>• CR93280: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 327. | 13 September 2018 | Mine noise (sleep disturbance) 2:30am – 3:00am                  | "noise bad" from 2.30am to approximately 3.00am and "mine noise bad" from 7. 10pm to 7. 18pm."Beutel   | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul>   |
| 328. | 17 September 2018 | Mine noise complaint (sleep disturbance) 5:50am                 | "V[ery] Bad mine noise followed by ?? Drilling noise" for 6am to approximately 7.30am” Beutel  | <ul style="list-style-type: none"> <li>• CR93281: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 329. | 21 September 2018 | Mine noise complaint – general                                  | “Evening noise – very bad” 8.30-9.20pm Beutel  | <ul style="list-style-type: none"> <li>• CR93284: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 330. | 23 September 2018 | Mine noise complaint (sleep disturbance) 2:20am, 4:20am, 6:30am | “Awoke to mine noise” at 2.20am, 4.20am and 6. 30am Beutel   | <ul style="list-style-type: none"> <li>• CR93285: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 331. | 25 September 2018 | Mine noise complaint – general                                  | Beutel   | <ul style="list-style-type: none"> <li>• CR93180: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 332. | 26 September 2018 | Mine noise complaint – general                                  | “large bangs, klink klinks loud intermittent Crash” Ecotrack (Beutel)  | <ul style="list-style-type: none"> <li>• CR93184: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 333. | 3 October 2018    | Mine noise complaint – general                                  | “Home for Land court. Very bad mine noise” Ecotrack (Beutel)<br>"Very Bad Mine Noise" for 8. 15-8.50 and 10. 17pm.” – Beutel Affidavit           | <ul style="list-style-type: none"> <li>• CR93187: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 334. | 4 October 2018    | Mine noise complaint – general                                  | “Very large bang” Ecotrack (Beutel)  | <ul style="list-style-type: none"> <li>• CR93190: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 335. | 5 October 2018    | Mine noise complaint – general                                  | “Bad noise in morning” Beutel Affidavit  | <ul style="list-style-type: none"> <li>• CR93191: Unredacted DES Ecotrack 2006 – 2020</li> </ul>   |

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| 336. | 11 October 2018 | Mine noise complaint – general | <p>“Very bad mine noise, lost (<i>sic</i>) of bangs...” Ecotrack (Beutel)</p> <p>"very bad mine noise lots of bangs most of the morning to 9:50am"; and<br/> “V[ery] noisy later" from around 3:00pm - 4:30pm; and<br/> "Bangs" from around 6: 11pm to 9:12pm.<br/> “ Beutel Affidavit</p> | <ul style="list-style-type: none"> <li>• CR93192: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul>         |
| 337. | 16 October 2018 | Mine noise complaint – general | <p>“Saturday "service" Very bad banging” Ecotrack (Beutel)</p> <p>“Very Bad Banging" for 6. 10pm to 7.20pm” Beutel Affidavit</p>   | <ul style="list-style-type: none"> <li>• CR93195: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul>         |
| 338. | 17 October 2018 | Mine noise complaint – general | <p>“Constant bad mine noise. As above(?)” Ecotrack (Beutel)</p> <p>“Constant bad mine noise” around 6:40am- 8:25am.” Beutel Affidavit</p>  | <ul style="list-style-type: none"> <li>• CR93196: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul>         |
| 339. | 27 October 2018 | Mine noise complaint – general | <p>"Bad Mine Noise" from around 6:30am - 10:40am.” - Beutel Affidavit</p>  | <ul style="list-style-type: none"> <li>• CR93200: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul>         |
| 340. | 30 October 2018 | Mine noise complaint – general | <p>“v[ery] bad most of the morning” - Beutel Affidavit</p>   | <ul style="list-style-type: none"> <li>• CR93202/CR93198: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 341. | 31 October 2018 | Mine noise complaint – general | <p>“most of the day” Ecotrack (Beutel)</p>   | <ul style="list-style-type: none"> <li>• CR93202: Unredacted DES Ecotrack 2006 - 2020</li> </ul>   |
| 342. | 1 November 2018 | Mine noise – general           | <p>“Mine noise bad all afternoon” – Ecotrack (Beutel) </p>   | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul>   |

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| 343. | 27 November 2018 | Mine noise – general 7am – 10:30am  | "Very Bad mine noise" and "Roaring, clunk clunking." From around 7:00am-10:30am" – Beutel Affidavit   | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul>   |
| 344. | 15 December 2018 | Mine noise complaint – general  | <p>"mine noise very bad most of the day; break at approximately 1pm" Ecotrack (Beutel)</p> <p>"mine noise very bad most of day" Beutel Affidavit</p>  | <ul style="list-style-type: none"> <li>• CR93214: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 345. | 16 December 2018 | Mine noise complaint – general  | <p>"mine noise very bad most of the day; break at approximately 1pm" Ecotrack (Beutel)</p> <p>"mine noise very bad after 9:00am" Beutel Affidavit</p> | <ul style="list-style-type: none"> <li>• CR93215: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 346. | 24 December 2018 | Mine noise complaint – general  | <p>"mine very noisy after blast" Ecotrack (Beutel)</p> <p>"Blast @ 10.45am" and "mine very noisy after blast" until 2.45pm." Beutel Affidavit</p>     | <ul style="list-style-type: none"> <li>• CR93217: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 347. | 28 December 2018 | Mine noise complaint – general  | <p>"Large bangs Very noisy most of the day" Ecotrack (Beutel)</p> <p>"V[ery] Noise most of Day" and "large bang" at 5.54pm." Beutel Affidavit</p>     | <ul style="list-style-type: none"> <li>• CR93218: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 348. | 31 December 2018 | Mine noise complaint – general  | <p>"Very bad noise (unlear)" Ecotrack (Beutel)</p> <p>"V[ery] Bad Noise" and "Drill Rig, esp[ecially]" at around 9:00am." Beutel Affidavit</p>        | <ul style="list-style-type: none"> <li>• CR93220: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 349. | January 2019     | From at least Jan 2019, all complaints by Mr Beutel are complaints about noise during the day. This coincides with SLRs reports that report no night time |   | <ul style="list-style-type: none"> <li>• Reply Affidavit of Glenn Beutel sworn 6 September 2021 (<b>OCA.0007</b>)</li> </ul>                             |

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|      |                | exceedances from that point onwards. |  |  |
| 350. | 1 January 2019 | Mine noise complaint – general       | “Very noisy most of the day after 9am ”<br>Ecotrack (Beutel)<br>“very noisy most of the day after 9.00 am” Beutel Affidavit  | <ul style="list-style-type: none"> <li>• CR93222: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 351. | 2 January 2019 | Mine noise complaint – general       | “Very noisy Very bad” Ecotrack (Beutel)<br>““very noisy” 7am to 12pm and “V [very] Bad Mine Noise” at 4.20pm” Beutel Affidavit   | <ul style="list-style-type: none"> <li>• CR93224: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 352. | 3 January 2019 | Mine noise complaint – general       | “Very bad mine noise. Occasional large bangs much of the day, especially later in the afternoon” Ecotrack (Beutel)<br>“V[ery] Bad mine noise. Occasional large bangs much of the day” and “especially late afternoon”.” Beutel Affidavit | <ul style="list-style-type: none"> <li>• CR93225: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 353. | 4 January 2019 | Mine noise complaint – general       | “Very bad” Ecotrack (Beutel)<br>“very bad mine noise about 7AM to 8.15AM”.Beutel Affidavit   | <ul style="list-style-type: none"> <li>• CR93227: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 354. | 7 January 2019 | Mine noise complaint – general       | “Very bad” Ecotrack (Beutel)<br>“Very Bad Noise” at 11:10AM to 4:10PM and 5.00PM.” Beutel Affidavit  | <ul style="list-style-type: none"> <li>• CR93228: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 355. | 9 January 2019 | Mine noise complaint – general       | “Mine noise bad from 7:15am onwards; occasional bangs and whirring, roaring, klunk klunk klunking...” Ecotrack (Beutel)<br>“Mine noise bad from about 7. 15AM” and “occasional bangs & whirring roaring Klank Klanking”; and             | <ul style="list-style-type: none"> <li>• CR93230: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |

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|      |                 |                                | "mine noise Very Bad" at 8.32AM."<br>Beutel Affidavit  |  |
| 356. | 10 January 2019 | Mine noise complaint – general | "...very bad" Ecotrack (Beutel)<br>"...mine noise V[ery] Bad" afternoon<br>around 4. 50pm." Beutel Affidavit   | <ul style="list-style-type: none"> <li>• CR93231: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 357. | 11 January 2019 | Mine noise complaint – general | "V[ery] Bad mine noise from about 7. 15"<br>to around 9.42 with further entries for<br>10.00 - 5.50pm and notes of "Blast @<br>11.09 AM" and "V[ery] Bad Noise" around<br>11.30AM." Beutel Affidavit | <ul style="list-style-type: none"> <li>• CR93233: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 358. | 12 January 2019 | Mine noise complaint – general | "V[ery] Bad Mine Noise" from about 7.15<br>AM to about 10.30 AM." Beutel Affidavit   | <ul style="list-style-type: none"> <li>• CR93234: Unredacted DES Ecotrack 2006 – 2020</li> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 359. | 18 January 2019 | Mine noise – general           | "intermittent Bad Mine Noise" about<br>7am – 7:45am; "V[ery] Bad Mine Noise"<br>7:45am – 8:35am - Beutel Affidavit   | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul>   |
| 360. | 20 January 2019 | Mine noise – general           | "Mine Noise Bad" from about 9.00 AM to<br>2.25<br>PM and a note of "Klank Klanking<br>Klanking" for around 5.00 PM to<br>5.50PM." - Beutel Affidavit   | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul>   |
| 361. | 21 January 2019 | Mine noise– general            | "V[ery] Bad mine noise" about 7.00 AM<br>to around 10.30 AM."- Beutel Affidavit  | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul>   |
| 362. | 26 January 2019 | Mine noise – general           | "screeching mine noise" and "scraping"<br>from about 8:50am - 10:07am, and ""whir<br>whir were", "bang crash", "screech<br>scrach", "roar roar" from about 10:07am -<br>12:00pm." - Beutel Affidavit | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul>   |
| 363. | 28 January 2019 | Mine noise – general           | "...I recorded a number of noises like<br>"Crash Bang" during the day and "Very  | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul>   |

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|      |                  |                      | Bad Mine noise" from 9.00 PM to 9.30 PM" - Beutel Affidavit   |  |
| 364. | 29 January 2019  | Mine noise – general | "...I recorded a number of noises like "Crash Bangs" during the day and "noise very bad" for 12-12.30PM with a "V[ery] Bad Screech Bang" around 1.30PM." - Beutel Affidavit               | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 365. | 5 February 2019  | Mine noise – general | "Heathrow Airport" 7:10am – 7:30am, 9:25am – 9:32am<br>"Very Bad noise" 11:09am – 2:45pm – Beutel Affidavit   | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 366. | 6 February 2019  | Mine noise– general  | "Bad Mine Noise" from around 7.00 AM to 12.04 PM and "crash bang" for 4:14PM to "screech screech" to 4:24PM" – Beutel Affidavit   | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 367. | 7 February 2019  | Mine noise – general | Very bad 5pm – 10:00pm - Beutel Affidavit   | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 368. | 8 February 2019  | Mine noise – general | "lots of Bang crashes. Pennaaent roar varying with wind gusts" and "Klank Klanks" from about 7.00 AM to 10.00 AM; and "roaring banging" from about 8.30 PM to 9. 17 PM"- Beutel Affidavit | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 369. | 9 February 2019  | Mine noise – general | "Very Bad mine noise" about 7am – 8:30am - Beutel Affidavit   | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 370. | 10 February 2019 | Mine noise – general | Bad Mine Noise" around 6 PM with "various intensity" to 8.30 PM and "screech screech" around 9. 11 PM.- Beutel Affidavit  | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 371. | 11 February 2019 | Mine noise – general | "Roaring Banging chugg chugging" about 7.00 AM;<br>"Roaring & Banging" around 8.02 AM;<br>"Crash Bang" around 9.30 AM." Beutel Affidavit  | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |

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| 372. | 14 February 2019 | Mine noise – general                     | “some minor quiet periods but mostly persistent noise” "Bangs", "Roaring", Klunk Klunk" and "Very Bad Noise" from about 7:15am – 4:45pm - Beutel Affidavit   | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 373. | 4 April 2019     | Mine noise complaint – general           | “...Caller was only marginally coherent. Initially reported that he was reporting mining noise. When details about the noise ( <i>sic</i> ) he began yelling the word “BANG” repeatedly. Eventually he then changed to making a “whirring” type sound. He then self-terminated the phone call.” Beutel | <ul style="list-style-type: none"> <li>• CR90862: Unredacted DES Ecotrack 2006 - 2020</li> </ul> |
| 374. | 5 April 2019     | Mine noise complaint – general           | Beutel   | <ul style="list-style-type: none"> <li>• CR90900: Unredacted DES Ecotrack 2006 - 2020</li> </ul> |
| 375. | 9 April 2019     | Mine noise complaint – general           | “Waiting on complaint form”  | <ul style="list-style-type: none"> <li>• CR91027: Unredacted DES Ecotrack 2006 - 2020</li> </ul> |
| 376. | 8 May 2019       | Mine noise complaint – general           | “Tonight is noisy...”  | <ul style="list-style-type: none"> <li>• CR91696: Unredacted DES Ecotrack 2006 - 2020</li> </ul> |
| 377. | 22-27 May 2019   | Complaints made to DES                   |  | <ul style="list-style-type: none"> <li>• N3S 33</li> </ul>                                       |
| 378. | 22 May 2019      | Mine noise complaint – general           | Beutel   | <ul style="list-style-type: none"> <li>• CR91926: Unredacted DES Ecotrack 2006 - 2020</li> </ul> |
| 379. | 24 May 2019      | Mine noise complaint – general           | Beutel   | <ul style="list-style-type: none"> <li>• CR91989: Unredacted DES Ecotrack 2006 - 2020</li> </ul> |
| 380. | 30 May 2019      | Mine noise complaint (sleep disturbance) | “...Mine noisy tonight. cold windows closed. Would like to go to sleep. 11:20pm now ...”   | <ul style="list-style-type: none"> <li>• CR93234: Unredacted DES Ecotrack 2006 - 2020</li> </ul> |
| 381. | 4 June 2019      | Mine noise complaint – general           | “Noise has been ongoing however event listed is during the night of 4 <sup>th</sup> June. The noise is guessed at being CHPP noise as well as mining noise, engines and banging...” Beutel   | <ul style="list-style-type: none"> <li>• CR92082: Unredacted DES Ecotrack 2006 - 2020</li> </ul> |

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| 382. | 7, 12 and 25 June 2019 | Complaints to DES              |  | <ul style="list-style-type: none"> <li>N3S 38</li> </ul>                                       |
| 383. | 7 June 2019            | Mine noise complaint – general | Beutel   | <ul style="list-style-type: none"> <li>CR92166: Unredacted DES Ecotrack 2006 - 2020</li> </ul> |
| 384. | 12 June 2019           | Mine noise complaint – general | Beutel   | <ul style="list-style-type: none"> <li>CR92239: Unredacted DES Ecotrack 2006 - 2020</li> </ul> |
| 385. | 20 June 2019           | Mine noise complaint – general | “Noise has been ongoing however event listed is during the night of 4 <sup>th</sup> June. The noise is guessed at being CHPP noise as well as mining noise, engines and banging...” Beutel | <ul style="list-style-type: none"> <li>CR92358: Unredacted DES Ecotrack 2006 - 2020</li> </ul> |
| 386. | 30 September 2019      | Mine noise complaint – general |  | <ul style="list-style-type: none"> <li>CR83646: Unredacted DES Ecotrack 2006 - 2020</li> </ul> |
| 387. | 1 October 2019         | Mine noise complaint – general | Mason  | <ul style="list-style-type: none"> <li>CR94124: Unredacted DES Ecotrack 2006 - 2020</li> </ul> |
| 388. | 28 - 29 January 2020   | Mine noise complaint – general | “Very bad noise impacts” Beutel  | <ul style="list-style-type: none"> <li>CR88841: Unredacted DES Ecotrack 2006 – 2020</li> </ul> |
| 389. | 23 February 2020       | Mine noise – general           | "V[ery] Bad mine noise most of the day - lots of Banging & Roaring" Beutel Affidavit   | <ul style="list-style-type: none"> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 390. | 24 February 2020       | Mine noise – general           | "Bad Mine noise" from around 7.30 - 7.45 AM and "lots of bangs" to 10. 15 AM." Beutel Affidavit  | <ul style="list-style-type: none"> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 391. | 25 February 2020       | Mine noise – general           | "mine noise bad most of the day". Beutel Affidavit   | <ul style="list-style-type: none"> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 392. | 26 March 2020          | Mine noise – general           | "Very Bad Mine Noise" and "Roaring, clunk clunk" at around ( <i>sic</i> ) 5.45 PM." Beutel Affidavit   | <ul style="list-style-type: none"> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 393. | 3 April 2020           | Mine noise – general           | “Mine noise very bad morning & afternoon” Beutel Affidavit   | <ul style="list-style-type: none"> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |

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| 394. | 15 April 2020 | Mine noise complaint – general        |   | <ul style="list-style-type: none"> <li>Complaint Summary from Statutory Party’s Compliance Hub Database (<b>OCA.0179</b>) (N288)</li> </ul> |
| 395. | 28 April 2020 | Mine noise – general                  | Very bad around 4:55pm - Beutel Affidavit   | <ul style="list-style-type: none"> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul>  |
| 396. | 5 May 2020    | Mine noise complaint – general        | "Mine Noise Crash Bang Clunk Clunk" and urban WAR" and "screech squeak." "I phoned the pollution hotline ...around 7:27am" Beutel Affidavit   | <ul style="list-style-type: none"> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul>  |
| 397. | 5 May 2020    | Mine noise complaint – general 7am    | “caller was very very very angry”   | <ul style="list-style-type: none"> <li>Complaint Summary from Statutory Party’s Compliance Hub Database (<b>OCA.0179</b>) (N288)</li> </ul> |
| 398. | 12 May 2020   | Mine noise complaint – general 8:30am | <p>“Awful mine noise, started about 7 and has gotten worse”.</p> <p>Complaint later verified by NAC and DES as per N3S, 45.</p> <p>"Awful Mine Noise" about 7.00 AM to 8.07 AM. I phoned the Pollution Hotline at around 8:02am” Beutel Affidavit</p> | <ul style="list-style-type: none"> <li>Complaint Summary from Statutory Party’s Compliance Hub Database (<b>OCA.0179</b>) (N288)</li> </ul> |
| 399. | 12 May 2020   | Mine noise complaint – general        | “Awful Mine Noise” 7 – 8:07am, “phoned the Pollution Hotline around 8:02am” Beutel  | <ul style="list-style-type: none"> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul>  |
| 400. | 7 July 2020   | Mine noise complaint – general        | Very bad around 7:45am “phoned the Pollution Hotline at about 5:51pm” Beutel  | <ul style="list-style-type: none"> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul>  |
| 401. | 8 June 2020   | Mine noise complaint – general 5pm    | “Noise unbearable”  | <ul style="list-style-type: none"> <li>Complaint Summary from Statutory Party’s Compliance Hub Database (<b>OCA.0179</b>) (N288)</li> </ul> |
| 402. | 7 July 2020   | Mine noise complaint – general 6pm    | “ROARING AND CLUNKING, VERY LOUD AND INTRUSIVE”   | <ul style="list-style-type: none"> <li>Complaint Summary from Statutory Party’s Compliance Hub Database (<b>OCA.0179</b>) (N288)</li> </ul> |

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| 403. | 21 July 2020   | Mine noise complaint – general<br>8am, 4:50pm – 6:20pm | “rumbling and crashing noises including high pitched beeping”  | <ul style="list-style-type: none"> <li>Complaint Summary from Statutory Party’s Compliance Hub (<b>OCA.0179</b>) database (N288)</li> </ul> |
| 404. | 21 July 2020   | Mine noise complaint – general                         | <p>“five calls to the Pollution Hotline between 7:40am to 7:55am; "screaming", "roaring, "crash"and "rrh rhh" at about 7:50am; The noise was "still v[ery] bad with a very slight southerly breeze (smoke test)" at around 8:1 lam; it "lessened overall by 8:20am" and "loud bangs cont[inued] till 9:10 -11:00 approx"; "rrh rrh", "crash bang", "klunk klunk klunk" and "scream" at about 5:40pm and that I phoned the pollution hotline on 1300 130 372. 1 recorded that the phone call receipt was N100013040.”</p> <p>Beutel Affidavit</p> | <ul style="list-style-type: none"> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul>  |
| 405. | 22 July 2020   | Mine noise – general                                   | "mine noise roaring", "banging all day", "much banging" and "roaring/screaming" from around 4:38pm until 4:44pm; and "Very bad until about 6:00pm. Lots of bangs etc." Beutel Affidavit  | <ul style="list-style-type: none"> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul>  |
| 406. | 22 July 2020   | Mine noise complaint – general 7am                     | “same noise [as 21 July], noise not as bad as 21 <sup>st</sup> ”   | <ul style="list-style-type: none"> <li>Complaint Summary from Statutory Party’s Compliance Hub database (<b>OCA.0179</b>) (N288)</li> </ul> |
| 407. | 11 August 2020 | Mine noise – general                                   | “very bad mine noise (SLR monitoring)" from about 4pm until about 5:50pm.”<br>Beutel Affidavit   | <ul style="list-style-type: none"> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul>  |
| 408. | 26 August 2020 | Mine noise complaint – general                         | “I phoned DES hotline ...at about 12:16 and recorded a reference number “C-  | <ul style="list-style-type: none"> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul>  |

|      |                   |                                |   |  |
|------|-------------------|--------------------------------|---|--|
|      |                   |                                | CPLRC-100021887" "bad for much of the day..." Beutel Affidavit  |  |
| 409. | 30 September 2020 | Mine noise complaint – general | "bad mine noise most of the day E.g. 4:24pm, 4:29pm, 4:58pm, 5:02pm, 5:22pm ...phoned the pollution hotline ...at about 5:20pm" Beutel Affidavit  | <ul style="list-style-type: none"> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul>                                       |
| 410. | 1 October 2020    | Mine noise complaint – general | "began to be agitated and the phone call was discontinued after asking [redacted] to lower his voice"   | <ul style="list-style-type: none"> <li>Complaint Summary from Statutory Party's Compliance Hub database (<b>OCA.0179</b>)</li> </ul> |
| 411. | 13 October 2020   | Mine noise complaint – general | "mine noise" at about 5:29pm and "roaring", "Plunking", "crash", "crashing", "bang bang" and "screaming"; "...called the Pollution Hotline ...reference number as "Escalation No. 029" and that my instructions from the person on the receiving end of the call were to "phone after tomorrow midday if no call." I recorded that at the time there was a "generally easterly breeze" and "INTENSE NOISE" Beutel Affidavit | <ul style="list-style-type: none"> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul>                                       |
| 412. | 14 October 2020   | Mine noise complaint – general | "roaring, clunking, crashing, banging, screaming Mine Noise"  | <ul style="list-style-type: none"> <li>Complaint Summary from Statutory Party's Compliance Hub database (<b>OCA.0179</b>)</li> </ul> |
| 413. | 15 October 2020   | Mine noise complaint – general | "No further information provided as notifier became distressed and aggressive..."   | <ul style="list-style-type: none"> <li>Complaint Summary from Statutory Party's Compliance Hub database (<b>OCA.0179</b>)</li> </ul> |
| 414. | 15 October 2020   | Mine noise complaint – general | "there was no call. GB phoned 15/10/2020." This refers to the entry on 13 October 2020; "intense roaring", "klunk klunk", "screaming and squealing", "crash banging" and "surging rrr rrr rrr" at about 1:3 8pm;  | <ul style="list-style-type: none"> <li>Affidavit of Mr G Beutel of 6 September 2021</li> </ul>                                       |

|      |                 |                      |  |  |
|------|-----------------|----------------------|--|--|
|      |                 |                      | <p>"I phoned the pollution hotline on 1300 130 372 at about 1:42pm and spoke to Laura "re call from 13/10 @ 5:29 Escalation No. 029." I recorded my conversation with Laura included that she "Said to phone (if no call) for CRN". Later I wrote, "waiting for call back - nothing yet". At 2:56pm I recorded that I phoned again and a reference number "N - 100026954" Beutel Affidavit</p> |  |
| 415. | 30 January 2021 | Mine noise – general | <p>"noise very bad" from about 7:00am - 10:30am" and "roaring", "thud", "banging", "thud" and "clunk clunking" Beutel Affidavit</p>  | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 416. | 31 January 2021 | Mine noise – general | <p>"I recorded "mine noise" generally" Beutel Affidavit</p>  | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 417. | 1 February 2021 | Mine noise – general | <p>"I recorded "mine noise" generally" Beutel Affidavit</p>  | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |
| 418. | 8 February 2021 | Mine noise – general | <p>"NOISE very bad for most of the day" Beutel Affidavit</p>   | <ul style="list-style-type: none"> <li>• Affidavit of Mr G Beutel of 6 September 2021</li> </ul> |

Environmental Defenders Office Ltd  
Solicitor for OCAA  
26 October 2021

## APPENDIX 2 - CHRONOLOGY OF KEY DATES

### OCAA chronology - New Acland Mine 2002-2021

| No. | Date             | Event   | Commentary  | Evidence source/s  |
|-----|------------------|---|---|--|
| 1.  | 6 September 2001 | ML 50170 granted for a term of 21 years.  |   | <ul style="list-style-type: none"> <li>Letter of Instructions to JER Noise Experts (<b>OCA.209</b>)</li> <li>Exhibit DPO-2 Affidavit of David O'Dwyer (<b>NAC.0010</b>)</li> </ul> |
| 2.  | 24 June 2006     | Moore reported exceedance at Harrison residence   |   | <ul style="list-style-type: none"> <li>Exhibit DPO-16 O'Dwyer Reply Affidavit p 20 (<b>NAC.0021</b>)</li> </ul>  |
| 3.  | 7 December 2006  | The Applicant was granted a mining lease for stage 2 of the mine (ML 50216).<br><br>Stage 2 EA authorised by an amended EA.   |   | <ul style="list-style-type: none"> <li>Exhibit DPO-2 Affidavit of David O'Dwyer (<b>NAC.0010</b>)</li> </ul>   |
| 4.  | 27 May 2007      | Applicant lodged mining lease application (MLA) 50232 pursuant to section 245 of the MR Act.<br><br>NAC lodges initial development plan for MLA 50232   | The IDP May 2007 no longer reflects NAC's current plan.<br><br>The IDP May 2007 remains the application plan submitted to satisfy s245(n) MR Act. | <ul style="list-style-type: none"> <li>O'Dwyer Affidavit at [42] and Exhibit DPO-2 (<b>NAC.0010</b>)</li> </ul>  |
| 5.  | 9 August 2007    | NAC writes to EPA noting an exceedance on 26 May 2007 but noting no complaint was received on that day.   |   | <ul style="list-style-type: none"> <li><b>TMP.0358</b></li> </ul>  |
| 6.  | 13 May 2009      | Moore reported exceedance at Harrison residence by 8dBA   |   | <ul style="list-style-type: none"> <li>Exhibit DPO-16 O'Dwyer Reply Affidavit p 121 (<b>NAC.0021</b>)</li> </ul>   |
| 7.  | 27 July 2009     | DERM writes to complainant and notes that the noise levels in the EA have been exceeded 6 times since monitoring began in 2006 but that in May 2009 the limit was exceeded by 8dBA and says that "DERM responded ... by reminding NAC they must |   | <ul style="list-style-type: none"> <li><b>TMP.0390</b></li> </ul>  |

|     |                   | comply with the conditions of their EA".  |  |   |
|-----|-------------------|---|--|---|
| 8.  | November 2009     | Applicant submitted an EIS (First EIS) for the Initial Expansion Project, which at that time still involved the staged expansion for the mine up to a capacity of 10 mtpa, and which was expected to extend coal production at the mine until approximately 2042. |  | <ul style="list-style-type: none"> <li>Exhibit DPO-2 Affidavit of David O'Dwyer (<b>NAC.0010</b>)</li> </ul>                  |
| 9.  | Feb 2011          | Moore reports that reported 'inconclusive' results  |  | <ul style="list-style-type: none"> <li><b>TMP.0140, TMP.0141, TMP.0143</b></li> </ul>   |
| 10. | March 2011        | Moore reports that reported 'inconclusive' results  |  | <ul style="list-style-type: none"> <li><b>TMP.0144, TMP.0145</b></li> </ul>   |
| 11. | April 2011        | Moore reports that reported 'inconclusive' results  |  | <ul style="list-style-type: none"> <li><b>TMP.0146</b></li> </ul>   |
| 12. | May 2011          | Moore report that reports exceedances (Kuhl) (and NAC exception report)   |  | <ul style="list-style-type: none"> <li><b>TMP.0035, TMP.0036</b></li> </ul>   |
| 13. | June 2011         | Moore report that report exceedances eg at Mason residence (and NAC exception report)   |  | <ul style="list-style-type: none"> <li><b>TMP.0037</b></li> <li><b>TMP.0060</b></li> <li><b>TMP.0038, TMP.0038</b></li> </ul> |
| 14. | 18-23 June 2011   | Moore report on monitoring at Plant/Ward residence which measures levels in excess of 40dBA but is inconclusive about whether it was mine noise   |  | <ul style="list-style-type: none"> <li><b>TMP.0038, TMP.0038, TMP.0060</b></li> </ul>   |
| 15. | Aug 2011          | Moore report that reports exceedances at Acland   |  | <ul style="list-style-type: none"> <li>Noise reports from David Moore and Associates N219 (<b>TMP.0060</b>) p21</li> </ul>    |
| 16. | 21 September 2011 | NAC letter to DERM exception report for noise acknowledging exceedances at, inter alia, Mason residence   |  | <ul style="list-style-type: none"> <li><b>TMP.0045</b></li> </ul>   |
| 17. | October 2011      | Exceedances recorded at Acland in Moore report dated 28 March 2012  |  | <ul style="list-style-type: none"> <li><b>TMP.0062, TMP.0060 p 40</b></li> </ul>  |
| 18. | February 2012     | Exceedances recorded at Acland in Moore report dated 28 March 2012  |  | <ul style="list-style-type: none"> <li><b>TMP.0057, TMP.0060 p 78</b></li> </ul>  |

|     |                    |  |  |   |
|-----|--------------------|--|--|---|
| 19. | 28 February 2012   | DERM letter to NAC that notes difficulties in interpreting Moore results and asking for further analysis including impulsive or tonal noise.               |  | <ul style="list-style-type: none"> <li>• <b>TMP.0429</b></li> </ul>   |
| 20. | March 2012         | Queensland Government rejects the Stage 3 project.   |  |   |
| 21. | April 2012         | Moore reports that reported exceedances at Acland (and NAC exception report)   |  | <ul style="list-style-type: none"> <li>• <b>TMP.0065, TMP.0066</b></li> </ul>                               |
| 22. | July 2012          | Moore reports that reported exceedances at Acland (and NAC exception report)   |  | <ul style="list-style-type: none"> <li>• <b>TMP.0070, TMP.0071</b></li> </ul>                               |
| 23. | 6 July 2012        | NAC advises DES that it has 'committed to upgrading the remainder of their fleet ...' etc.   |  | <ul style="list-style-type: none"> <li>• Letter Noise Monitoring - NAC N355 (<b>TMP.0456</b>)</li> </ul>    |
| 24. | 6-9 July 2012      | DEHP undertakes monitoring near Tanya Plant's residence and reported exceedances   |  | <ul style="list-style-type: none"> <li>• <b>TMP.007</b></li> </ul>  |
| 25. | August 2012        | Moore reports that reported exceedances at Acland (and NAC exception report)   |  | <ul style="list-style-type: none"> <li>• <b>TMP.0073, TMP.0074</b></li> </ul>                               |
| 26. | 24 September 2012  | NAC writes to DES and claims that the monitor at Lot 1, Acland Road, ACLAND is 'not considered to represent a sensitive receptor'.                         | This letter illustrates the importance of the conditions making it clear whether not the measurement of noise is at the monitor, and if not, how adjustments will be made to account for any difference in the location of the receptors and the location of the monitors. | <ul style="list-style-type: none"> <li>• <b>TMP.0074</b></li> </ul>   |
| 27. | 25-26 October 2012 | DES undertakes monitoring near Mr Beutels' house in response to his complaints and reported exceedances of between 1.1 and 7.2 dBA                         | This monitoring was followed up with subsequent monitoring by the Department on 9-13 July 2013, reported in a memo dated 15 August 2013.   | <ul style="list-style-type: none"> <li>• <b>TMP.0083, TMP.0469, TMP.0083, OCA.0028, TMP.0483</b></li> </ul> |
| 28. | 17 April 2013      | DEHP write to complainant NAC noting levels exceeded by up to 7.2dBA(A) and noting that NAC has been requested to take action to implement noise abatement |  | <ul style="list-style-type: none"> <li>• <b>TMP.0469</b></li> </ul>   |

|     |                |  |  |   |
|-----|----------------|--|--|---|
|     |                | measures so that the emissions do not result in further environmental nuisance.  |  |   |
| 29. | 17 April 2013  | DEHP write to NAC noting levels exceeded by up to 7.2dBA(A) and requesting NAC take action to implement noise abatement measures so that the emissions do not result in further environmental nuisance.  |  | <ul style="list-style-type: none"> <li>• <b>TMP.0083</b></li> </ul>   |
| 30. | 22 April 2013  | David Moore writes to NAC and comments on DEHP letter dated 17 April 2013 arguing that the DEHP assessment was flawed.   | Note however that this letter does not say that the mine complied.   | <ul style="list-style-type: none"> <li>• <b>TMP.0085</b></li> </ul>   |
| 31. | 24 April 2013  | <p>NAC letter to DEHP (attaching Moore letter of 22 April) noting that NAC has undertaken 'extensive efforts to reduce the potential for environmental nuisance (noise) caused by our operation, some of which occurred after the AA's monitoring ...'.</p> <p>The letter argues that the monitoring does not include some aspects of condition D3 and therefore cannot be used to determine compliance.</p> | <p>NAC argues that, if the monitoring does not comply with D3 then it cannot be used to show exceedances.</p> <p>This communication illustrates how important it is that the conditions which require NAC's compliance monitoring to include certain measurements is not then used as a basis to exclude other monitoring which may demonstrate a lack of compliance but may not include some or all of the measurements required by condition F5 (such as the LA 1% and LA 10% requirements).</p> | <ul style="list-style-type: none"> <li>• <b>TMP.0472</b></li> </ul>   |
| 32. | 15-16 May 2013 | Noise monitoring conducted at various locations around mine  | This is the only noise monitoring data that is included in the EIS other than background monitoring.   | <ul style="list-style-type: none"> <li>• Ch 11 (Noise and Vibration) (Ex 29, <b>EHP.0029</b>) section 11.2.4 and Table 11-2.</li> </ul> |
| 33. | 9-12 July 2013 | DES undertakes monitoring at Glen Beutel's property during night time period – see 15 August 2013 report and letter to NAC   |  | <ul style="list-style-type: none"> <li>• <b>TMP.0483</b></li> </ul>   |

|     |                |   |   |  |
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| 34. | August 2013    | Moore reports that reported exceedances (and NAC exception report)  |   | <ul style="list-style-type: none"> <li>• <b>TMP.0090, TMP.0091</b></li> </ul>  |
| 35. | 15 August 2013 | DEHP memo which sets out results of monitoring from 9-12 July 2013 and recommending that NAC take action to implement noise abatement measures  | <p>The memo concludes at pdf p 10:<br/>The frequent complaints lodged by [] show that noise from the mining activity is causing an environmental nuisance at a sensitive place. Therefore NAC are not complying with condition D1 of their Environmental Authority.</p> <p>Investigation into the source of the noise through the noise monitoring program undertaken by EHP showed that the night time noise level of 40dB(A) was exceeded on all three one-hour blocks of noise data analysed from the unattended monitoring at the complainant's property. The night time noise level was also exceeded during a 15 minute attended monitoring period in Acland. Therefore NAC are in non-compliance with condition D4 of their Environmental Authority.</p> | <ul style="list-style-type: none"> <li>• <b>TMP.0483</b></li> </ul>  |
| 36. | 15 August 2013 | EHP letter to NAC, refers to noise monitoring results from 9-12 July 2013 and requests that NAC take action to implement noise abatement measures 'so that emissions of noise from mining activities do not result in further environmental nuisance' | See response 9 September 2013   | <ul style="list-style-type: none"> <li>• <b>TMP.0089</b></li> </ul>  |
| 37. | 15 August 2013 | EHP letter to complainant noting that 'EHP has subsequently written to NAC seeking advice on what measures have been taken to reduce noise nuisance and ensure compliance with the conditions of their environmental authority and what additional    | "The analysed data revealed that the noise limit of $L_{AR, 1hr}$ 40dB(A) defined in NAC's environmental authority was exceeded during all three sample periods taken ..."  | <ul style="list-style-type: none"> <li>• Affidavit of Glenn Beutel sworn 4 August 2021 (<b>F.0075</b>), GB-56</li> </ul> |

|     |                         | measures will be taken to mitigate noise from the mine.'  |  |  |
|-----|-------------------------|---|--|--|
| 38. | 9 September 2013        | NAC writes to DEHP referring to the nights of 9-10 and 10-11 July when DES was undertaking noise monitoring: <ul style="list-style-type: none"> <li>- acknowledging that 'conditions on both nights could have resulted in achieving the noise levels observed in Acland' and</li> <li>- setting out the 'proactive measure and actions in the recent past with respect to minimising potential noise nuisance ...' and</li> <li>- actions that NAC is considering to minimise the potential for noise nuisance.</li> </ul> |  | <ul style="list-style-type: none"> <li>• <b>TMP.0486</b></li> </ul>  |
| 39. | October 2013            | Moore reports that reported exceedances (and NAC exception report)  |  | <ul style="list-style-type: none"> <li>• <b>TMP.0093, TMP.0094</b></li> </ul>  |
| 40. | 18 and 20 December 2013 | Advitech conducts noise monitoring in Acland. The report concluded that the EA levels were exceeded on both 18 and 20 December (Advitech report 13 January 2014 attached to NAC letter dated 14 January 2014)   |  | <ul style="list-style-type: none"> <li>• <b>TMP.0098</b></li> </ul>  |
| 41. | 14 January 2014         | NAC writes to DES in response to DES's letter dated July 2013 acknowledging exceedances of EA on 18 and 20 December 2013 and proposing mitigation measures including TARP   |  | <ul style="list-style-type: none"> <li>• <b>TMP.0098</b></li> </ul>  |
| 42. | January 2014            | The Applicant submitted the revised environmental impact statement (EIS) for the Project under the SDPWO Act.   |  | <ul style="list-style-type: none"> <li>• JER instructions (<b>OCA.0209</b>)</li> <li>• Exhibit DPO-2 Affidavit of David O'Dwyer (<b>NAC.0010</b>) p70</li> </ul> |

|     |                                 |  |                            |   |
|-----|---------------------------------|--|----------------------------|---|
| 43. | 18 January 2014 to 3 March 2014 | Draft EIS for the revised project was released for public consultation   |                            | <ul style="list-style-type: none"> <li>Exhibit DPO-2 Affidavit of David O'Dwyer (<b>NAC.0010</b>) p70</li> </ul>        |
| 44. | January 2014                    | Exceedences of EA noise limits recorded in TARP  | 15 exceedances 40.4 – 43.6 | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul> |
| 45. | February 2014                   | Exceedences of EA noise limits recorded in TARP  | 9 exceedances 40.2 – 41.9  | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul> |
| 46. | March 2014                      | Exceedences of EA noise limits recorded in TARP  | 7 exceedances 40.1 – 40.6  | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul> |
| 47. | 14 March 2014                   | Example of Moore report that says compliance 'could not be determined'   |                            | <ul style="list-style-type: none"> <li><b>NAC.0136</b> – Original Hearing</li> </ul>                                    |
| 48. | April 2014                      | Exceedences of EA noise limits recorded in TARP  | 9 exceedances 40.1 – 42.8  | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul> |
| 49. | 22 April 2014                   | DEHP writes to complainant noting that the TARP system implemented by NAC 'relied upon a quick response time from operators to shut down equipment to reduce the noise levels which sometimes was not always possible for operational reasons. Consequently, NAC refined the TARP system to add an additional noise abatement measure referred to as the dashboard measure ... NAC will fully implement this additional noise abatement measure in May when all relevant supervisors and open cut examiners are fully trained in the use of the dashboard ..." |                            | <ul style="list-style-type: none"> <li><b>TMP.0513</b></li> </ul>   |
| 50. | May 2014                        | Dashboard system introduced by NAC to complement the TARP  |                            | <ul style="list-style-type: none"> <li>Expert Report – Noise (Shane Elkin) (<b>NAC.0060</b>) [147]</li> </ul>           |

|     |              |   |   |   |
|-----|--------------|---|---|---|
| 51. | May 2014     | Exceedences of EA noise limits recorded in TARP   | 10 exceedances 40.1. – 41.3   | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul> |
| 52. | June 2014    | Exceedences of EA noise limits recorded in TARP   | 9 exceedances 40.1 – 41.1   | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul> |
| 53. | 20 June 2014 | EHP letter to complainant noting it is possible that noise from the mine may have caused noise nuisance but that it is difficult to determine whether the mine caused an exceedance between 6am-8am and proposing further EHP monitoring. |   | <ul style="list-style-type: none"> <li><b>TMP.0530</b></li> </ul>   |
| 54. | July 2014    | Exceedences of EA noise limits recorded in TARP   | 9 exceedances 401. 42.7   | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul> |
| 55. | July 2014    | Moore reports that reported exceedances at Acland   |   | <ul style="list-style-type: none"> <li><b>TMP.0106</b></li> </ul>   |
| 56. | 2 July 2014  | SLR Overview of Overview of New Acland Coal Mine's Noise "Live Dashboard" prepared by Shane Elkin.  |   | <ul style="list-style-type: none"> <li>Expert Report – Noise (Shane Elkin) N56 Annexure B (<b>NAC.0060</b>)</li> </ul>  |
| 57. | 8 July 2014  | Advitech 'validation' report of new directional monitor (Quattro monitor)   | Mr Elkin conceded under cross examination in 2016 that the "validation" was "short of best practice by some margin" and that one of "the problems that appears to exist with this directional array is its loss of accuracy when its dealing with variations in noise over time and spatially" and that reliance upon a discrete quadrant has the tendency to under report the contribution from that noise source. | <ul style="list-style-type: none"> <li><b>OCA.0059</b> p 19</li> <li>Exhibit 21 OCA.0262</li> </ul>                     |
| 58. | August 2014  | Exceedences of EA noise limits recorded in TARP   | 13 exceedances 40.6 – 44.2  | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul> |

|     |                                       |   |  |  |
|-----|---------------------------------------|---|--|--|
| 59. | September 2014                        | Exceedences of EA noise limits recorded in TARP   | 12 exceedances 40.2 – 44.9   | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul>                                      |
| 60. | 1 September 2014 to 29 September 2014 | Additional information to the EIS (AEIS) was released for public consultation.  |  | <ul style="list-style-type: none"> <li>Exhibit DPO-2 Affidavit of David O’Dwyer (<b>NAC.0010</b>) p71</li> </ul>   |
| 61. | October 2014                          | Exceedences of EA noise limits recorded in TARP   | 1 exceedance 42.0  | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul>                                      |
| 62. | October 2014                          | NAC commences use of Quattro monitor at Acland  | Note: Mr Elkins later acknowledged that this method was likely to under-report noise attributable to the mine in the TARP system | <ul style="list-style-type: none"> <li>Exhibit 21, OCA.0262 T4-43</li> </ul>   |
| 63. | 19 December 2014                      | The Coordinator-General's evaluation report on the EIS and AEIS was released.   |  | <ul style="list-style-type: none"> <li>JER Instructions (<b>OCA.209</b>);</li> <li>Exhibit DPO-2 Affidavit of David O’Dwyer (<b>NAC.0010</b>) p71</li> </ul> |
| 64. | March 2015                            | Exceedences of EA noise limits recorded in TARP   | 2 exceedances 40.8 – 42.5  | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul>                                      |
| 65. | April 2015                            | Exceedences of EA noise limits recorded in TARP   | 3 exceedances 40.3 – 41.1  | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul>                                      |
| 66. | 13 April 2015                         | NAC lodges an application to amend its existing environmental authority (EA Amendment Application) under the Environmental Protection Act 1994 (Qld) (EPA). |  | <ul style="list-style-type: none"> <li>Exhibit DPO-2 Affidavit of David O’Dwyer (<b>NAC.0010</b>) p71</li> </ul>   |
| 67. | May 2015                              | Exceedences of EA noise limits recorded in TARP   | 5 exceedances 40.4 – 42.8  | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul>                                      |
| 68. | June 2015                             | Exceedences of EA noise limits recorded in TARP   | 3 exceedances 40.1 – 40.5  | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul>                                      |
| 69. | July 2015                             | Exceedences of EA noise limits recorded in TARP   | 6 exceedances 40.1 – 41.4  | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul>                                      |

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| 70. | August 2015     | Moore report that reported exceedances (Kuhl)   |   | <ul style="list-style-type: none"> <li>150906 Letter, David Moore to NAC N276 (<b>TMP.0117</b>)</li> </ul>                                |
| 71. | August 2015     | Exceedences of EA noise limits recorded in TARP   | 2 exceedances 40.1 – 41.4   | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul>                   |
| 72. | 28 August 2015  | DEHP approved the Applicant's EAA Application and issued the Applicant a Draft Environmental Authority      |   | <ul style="list-style-type: none"> <li>Exhibit DPO-2 Affidavit of David O'Dwyer (<b>NAC.0010</b>) p72</li> </ul>                          |
| 73. | September 2015  | Moore report that reported exceedances at Acland  |   | <ul style="list-style-type: none"> <li>150930 Letter, David Moore to NAC N278 (<b>TMP.0118</b>)</li> </ul>                                |
| 74. | September 2015  | Exceedences of EA noise limits recorded in TARP   | 3 exceedances 40.3 – 41.5   | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul>                   |
| 75. | October 2015    | Exceedences of EA noise limits recorded in TARP   | 6 exceedances 40.5 – 43.5   | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul>                   |
| 76. | 14 October 2015 | The MLAs referred to the Land Court   |   | <ul style="list-style-type: none"> <li><b>F.0001</b> (Referral Docs)</li> </ul>   |
| 77. | 19 October 2015 | The EA Amendment Application is referred under s 185 of the EPA to the Land Court for an objections hearing |   | <ul style="list-style-type: none"> <li><b>F.0001</b> (Referral Docs)</li> </ul>   |
| 78. | November 2015   | Exceedences of EA noise limits recorded in TARP   | 3 exceedances 40.1 – 46.0   | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul>                   |
| 79. | December 2015   | Exceedences of EA noise limits recorded in TARP   | 3 exceedances 40.2 – 41.5   | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul>                   |
| 80. | January 2016    | Moore report that reported exceedances (Kuhl)   |   | <ul style="list-style-type: none"> <li><b>NAC.0199</b></li> </ul>   |
| 81. | January 2016    | Exceedences of EA noise limits recorded in TARP   | 2 exceedances 40.9 – 42.9   | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul>                   |
| 82. | 22 Feb 2016     | Joint expert report – original hearing  | <p>The experts agree that Mr Moore methodology is flawed.</p> <p>Mr Elkin states that 'the historical performance of NAC in responding to and investigating noise complaints prior to</p> | <ul style="list-style-type: none"> <li>Joint Expert Report – Noise and Vibration (Elkin, Savery) N55, Ex 406 (<b>NAC.0034</b>)</li> </ul> |

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|     |               |   | <p>the TARP was not satisfactory” (joint report at 466).</p> <p>Mr Elkin recommends that the monthly monitoring by Mr Moore is discontinued with the additional 2 real time directional noise monitors replacing it.</p> <p>Mr Savery notes at [364] that the noise of mining includes frequencies greater than 630Hz. He notes other deficiencies in the TARP including the fact that the system excludes data where there is extraneous noise (ie the 2dB rule).</p> <p>At [370] Mr Savery says:<br/> “Directional noise monitoring systems find it difficult to provide accurate information if there are significant sources close to the monitor relative to the sources of interest that are further removed from the location. The directional monitoring station also has difficulty in handling constantly moving sources where sources are located in a depth of field, i.e. not all located at the same separation distance from the monitoring location.”</p> |   |
| 83. | March 2016    | Exceedences of EA noise limits recorded in TARP   | 1 exceedance 40.2   | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul> |
| 84. | 18 March 2016 | Mr Elkin IER attaching 2 July 2014 report and referring to that report to describe the operation of the TARP system |   | <ul style="list-style-type: none"> <li><b>NAC 0060</b> at [191] p 29 and p 71</li> </ul>                                |

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| 85. | May 2016            | Exceedences of EA noise limits recorded in TARP  | 1 exceedance 40.8   | <ul style="list-style-type: none"> <li>Amended Table 1 Mr Elkins Report (<b>NAC.0106 – Original Hearing</b>)</li> </ul>                       |
| 86. | 27 May 2016         | Revision 5 of the TARP Work Instructions Checked Internally before being signed on 6 June 2016   | Work Instructions provide for TARP system to operate by alarms and use to 2dB rule  | <ul style="list-style-type: none"> <li><b>OCA.0059 p 76 and 81</b></li> </ul>   |
| 87. | 3-4 and 6 June 2016 | Shane Elkin gives expert evidence  | <p>Mr Elkin agrees that:</p> <ul style="list-style-type: none"> <li>- the Advitech report ‘validating’ the directional monitor fell short</li> <li>- the directional monitor was not a type 1 monitor and was likely to under-represent noise from the mine and has accuracy issues with variable noise</li> <li>- the application of the 2dBA rule means that the TARP system does not work in the dawn, day or evening periods</li> </ul> <p>Mr Elkin suggests the location of the monitor should be changed.</p> | <ul style="list-style-type: none"> <li>Exhibit 21, OCA.0262</li> </ul>  |
| 88. | 6 June 2016         | Revision 5 of the TARP Work Instructions signed  | Work Instructions are contrary to Mr Elkin’s evidence about the way the TARP system operates as set out in his IER and continue to rely upon the 2dB rule   | <ul style="list-style-type: none"> <li><b>OCA.0059 p 76 and 81</b></li> </ul>   |
| 89. | 7 June 2016         | Letter from DES to NAC noting that no preventative action was taken when the noise levels from the mine exceeded the EA limits by almost 10dBA |   | <ul style="list-style-type: none"> <li>Letter from EHP to NAC re complaint regarding noise on 21 May 2016 N3S, 2 (<b>OCA.0032</b>)</li> </ul> |
| 90. | 16 June 2016        | NAC responds to DES’s letter of 7 June 2016  | <p>NAC continues to rely upon the 2dB rule as a defence.</p> <p>The letter states “.. the A0I11 Hr dB(A), was greater than 40dB(A) at [the relevant time] ... In all of these instances, the influence of noise outside area of interest 1 (the direction of the mine) was likely to impact results, as there was greater than 2 dB(A) separation between LAeq and LF ... In this circumstance, in</p>  | <ul style="list-style-type: none"> <li><b>OCA.0033</b></li> </ul>   |

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|     |               |   | the period from 5:40 am to 7am there was no reason to take preventative action as the noise results were influenced by other non-mine noise sources.  |  |
| 91. | June 2016     | Moore report (with amended methodology, averaging over an hour and using a log scale) - identifies exceedance |   | <ul style="list-style-type: none"> <li>Affidavit of Glenn Beutel sworn 4 August 2021 (F.0075) GB exh 57 pdf 242</li> </ul> |
| 92. | 7-8 July 2016 | DES disputes NAC's reliance upon 2dBA rule and requests audio files.  |   | <ul style="list-style-type: none"> <li>OCA.0034</li> </ul>   |
| 93. | 26 July 2016  | NAC provides audio files from 5am – 7am May 2016  |   | <ul style="list-style-type: none"> <li>OCA.0034</li> </ul>   |
| 94. | 28 July 2016  | Advitech report   | <p>This report is relied upon by NAC to justify the use of the 2dB rule notwithstanding Mr Elkin's evidence given less than 2 months earlier.</p> <p>Mr Elkin gives evidence in 2021 that this report is not a correlation report and that it does not validate the use of the 2dB rule at dawn.</p>  | <ul style="list-style-type: none"> <li>OCAA.0059 p 62</li> </ul>   |
| 95. | 29 July 2016  | NAC response to DES letter of 7 July 2016 attaching the Advitech report .                                     | <p>The letter states:</p> <p>“NAC have engaged the consultancy services of Advitech Environmental to justify with further and better particulars why the statement relating to 2dB separation from NAC's letter dated 16 June 2016 applies (refer enclosed report).”</p> <p>“NAC have complied with Condition D1 of its Environmental Authority (EA) and its general environmental duty by leasing a noise monitor and locating it and operating it in Acland as a management</p> | <ul style="list-style-type: none"> <li>OCAA.0038</li> </ul>  |

|      |                                |  | tool, to allow NAC to identify potential for elevated noise and adapt its operations to minimise risk of noise impacts.” |  |
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| 96.  | August 2016                    | Moore report identifies exceedance   |  | <ul style="list-style-type: none"> <li>Affidavit of Glenn Beutel sworn 4 August 2021 (F.0075) GB exh 57 pdf p 249</li> </ul>                   |
| 97.  | September 2016                 | Moore report says compliance could not be determined   |  | <ul style="list-style-type: none"> <li>Affidavit of Glenn Beutel sworn 4 August 2021 (F.0075) GB exh 57 pdf p252</li> </ul>                    |
| 98.  | October 2016                   | Moore report says compliance could not be determined due to less than one hour of sample                                   |  | <ul style="list-style-type: none"> <li>Affidavit of Glenn Beutel sworn 4 August 2021 (F.0075) GB exh 57 pdf p255</li> </ul>                    |
| 99.  | November 2016                  | Moore report records levels above 40 dB(A) but says compliance could not be determined due to less than one hour of sample |  | <ul style="list-style-type: none"> <li>Affidavit of Glenn Beutel sworn 4 August 2021 (F.0075) GB exh 57 pdf p258</li> </ul>                    |
| 100. | November 2016 and January 2017 | Moore report says compliance could not be determined but records levels that were over 40dB(A) for relevant period         |  | <ul style="list-style-type: none"> <li>Affidavit of Glenn Beutel sworn 4 August 2021 (F.0075) GB exh 58 pdf p265</li> </ul>                    |
| 101. | February 2017                  | Moore report compliance could not be determined  |  | <ul style="list-style-type: none"> <li>Affidavit of Glenn Beutel sworn 4 August 2021 (F.0075) GB exh 59 pdf p300</li> </ul>                    |
| 102. | April 2017                     | Moore report exceedance by 3.2dB(A)  |  | <ul style="list-style-type: none"> <li>Affidavit of Glenn Beutel sworn 4 August 2021 (F.0075) GB exh 59 pdf p300;</li> <li>95A p 33</li> </ul> |
| 103. | 31 May 2017                    | Land Court (Member Smith) delivers decisions   |  |  |
| 104. | Nov 2017                       | Moore reports identifies exceedance  |  | <ul style="list-style-type: none"> <li>Affidavit of Glenn Beutel sworn 4 August 2021 (F.0075), GB exh 62 pdf 410</li> </ul>                    |
| 105. | 9 February 2018                | DES investigation into complaints on 27-28 December 2017 and 2 January   | Note that NAC provided the data requested. There are a number of   | <ul style="list-style-type: none"> <li><b>OCA.0052</b></li> </ul>  |

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|      |               | 2018 commences with letter to NAC seeking information.  | communications that are not included in the this chronology.   |   |
| 106. | March 2018    | Moore reports identifies exceedance   |  | <ul style="list-style-type: none"> <li>Affidavit of Glenn Beutel sworn 4 August 2021 (F.0075) GB exh 63;</li> </ul> |
| 107. | 11 April 2018 | DES requests that NAC undertake analysis of SentineX monitoring in frequencies less than 1kHz rather than the 630kHz previously used and questioning the quality of the noise ie whether it is impulsive noise.   |  | <ul style="list-style-type: none"> <li><b>OCA.0058</b></li> </ul>   |
| 108. | April 2018    | <p>Report prepared by Mr Elkin attaching:</p> <ul style="list-style-type: none"> <li>- Advitech Report 2014</li> <li>- Advitech Report July 2016</li> <li>- Acland Mine's (Tech Services Work Instruction) WI-TECH-05 – Noise Nuisance Management Standard</li> </ul> | <p>The report concludes that NAC acted in “accordance with the 2dBA rule”, including in the dawn period.</p> <p>The report fails to comment on the fact that the Advitech report does not validate the use of the 2dB rule in the dawn period (only having looked at it over a 1 hour period in the middle of the night) and critically fails to comment on the fact that Mr Elkin considered at that time that the 2dB rule does not work at dawn.</p> <p>This raises a serious issue in relation to Mr Elkin's independence. It also raises a serious issue in relation to NAC's representations to the Department – in circumstances where NAC was aware of Mr Elkin's views on the 2dB rule.</p> <p>The report also identifies the problem with applying the low pass 630Hz filter when mining closer than 2km to sensitive receptors. However, despite this problem being identified in April 2018 (after being raised in 2016), no action was taken by</p> | <ul style="list-style-type: none"> <li><b>OCA.0059 p 7</b></li> </ul>   |

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|      |               |   | NAC to redress the problem until October 2018.   |   |
| 109. | 30 April 2018 | NAC writes to DES attaching SLR report dated April 2018 (which in turn attached the 2014 and 2016 Advitech reports)   | <p>The letter argues that a complaint and a subsequent request for monitoring under the EA conditions D2 and D3 are to be triggered prior to and to inform compliance with condition D1.</p> <p>The letter argues that</p> <ul style="list-style-type: none"> <li>- NAC followed it's Trigger Action Response Plan for the nights under investigation and</li> <li>- that the "2dB(A) rule" "was reviewed and validated by Advitech as recently as 2016" and</li> <li>- "as noted in the SLR report, the 2dB(A) rule was implemented during the periods in question".</li> </ul> | <ul style="list-style-type: none"> <li>• <b>OCA.0059</b></li> </ul>   |
| 110. | 2 May 2018    | First decision of the primary judge, Bowskill J: New Acland Coal Pty Ltd v Smith & Ors [2018] QSC 88  |  |   |
| 111. | 2-3 May 2018  | Moore reports exceedance in hour from 11:10pm to 12:10am  |  | <ul style="list-style-type: none"> <li>• Affidavit of Glenn Beutel sworn 4 August 2021 (<b>F.0075</b>) GB-64 p 444</li> </ul>                   |
| 112. | 5-11 May 2018 | SAVtek monitoring 1972 Oakey-Cooyar Road, Highland Plains (Mason residence) demonstrating non compliance on 9-10 May 2018   |  | <ul style="list-style-type: none"> <li>• Exhibit PAH-18 to Ms Aileen Harrison's affidavit sworn 4 August 2021 (<b>F.0074</b>) (p127)</li> </ul> |
| 113. | 5-11 May 2018 | SAVtek monitoring 11 Allen St (Beutel residence).<br><br>"The report concludes that the mining noise immissions at the Beutel sensitive place were noncompliant with the Schedule D Noise Limits in | Note in particular the level of exceedance on 10 May 2018:<br>5am to 6am (6-11 dB exceedance)<br>9pm to 10pm (7-8 dB exceedance)<br>10pm to 11pm (5-6 dB exceedance)   | <ul style="list-style-type: none"> <li>• Affidavit of Glenn Beutel sworn 4 August 2021 (<b>F.0075</b>) Exhibit GB-65</li> </ul>                 |

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|      |                      | NAC's environmental authority for a total of 11 hours over four days during this week of monitoring. The noise immission levels exceeded the noise limits by up to 11 dB. Another four hours were assessed as being "marginal" and require further analysis to determine if there was non-compliance with the noise limits." |  |   |
| 114. | 12-18 May 2018       | SAVtek monitoring 1972 Oakey-Cooyar Road, Highland Plains (Mason residence) demonstrating non compliance on 12, 13, 14 and 18 May 2018   |  | <ul style="list-style-type: none"> <li>Exhibit PAH-18 to Ms Aileen Harrison's affidavit sworn 4 August 2021 (p64) (<b>F.0074</b>)</li> </ul>                                    |
| 115. | 21 May 2018          | DES letter to NAC that requests that NAC undertake monitoring in accordance with the noise measurement manual  |  | <ul style="list-style-type: none"> <li><b>OCA.0060</b></li> </ul>   |
| 116. | 26 May – 1 June 2018 | SAVtek monitoring 1972 Oakey-Cooyar Road, Highland Plains (Mason residence) demonstrating non compliance on 31 May 2018 and 1 June 2018 and noting other potential exceedances during the period for which further analysis required.  |  | <ul style="list-style-type: none"> <li>Exhibit PAH-21 to Ms Aileen Harrison's affidavit sworn 9 September 2021 (<b>OCA.0009</b>)</li> </ul>                                     |
| 117. | 28 May 2018          | Second decision of Bowskill J: New Acland Coal Pty Ltd v Smith & Ors (No 2) [2018] QSC 119.  |  |   |
| 118. | June – Aug 2018      | Multiple exceedances identified in SLR report.   |  | <ul style="list-style-type: none"> <li>Affidavit of Glenn Beutel sworn 4 August 2021 (<b>F.0075</b>), GB-67;</li> <li>1810 SLR Noise Survey Winter (<b>OCA.0149</b>)</li> </ul> |

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| 119. | 12-15 June 2018 | DES monitoring shows exceedances.<br><br>See also DES peer review report.  |  | <ul style="list-style-type: none"> <li>• Statutory Party's Noise Monitoring Report (<b>OCA.0064</b>);</li> <li>• Affidavit of Glenn Beutel sworn 4 August 2021 (<b>F.0075</b>), GB-66</li> </ul> |
| 120. | 18 July 2018    | JER gives this day as an example of where TARP registered 35.9dB(A) and SLR measured 43dB(A) attributable to the mine.   |  | <ul style="list-style-type: none"> <li>• JER Noise (<b>NAC.0036</b>) at [93]</li> </ul>  |
| 121. | 17 August 2018  | EDO writes to DES on behalf of OCAA imploring DES to take action and enclosing SAVtek report setting out results of monitoring from 5-18 May 2018 at Ms Mason's residence. |  | <ul style="list-style-type: none"> <li>• Exhibit PAH-18 to Ms Aileen Harrison's affidavit sworn 4 August 2021 (p 61) (<b>F.0074</b>)</li> </ul>  |
| 122. | October 2018    | SLR winter survey report   | <p>Numerous exceedances identified throughout June, July and August including exceedances not described by SLR as 'acoustically marginal'.</p> <p>Finds that "The current NAC Trigger Action Response Plan (TARP) utilises a low pass filter of <math>\leq 630</math>Hz to account for mine noise at the sensitive receptor monitoring location (based on an Advitech Report dated 28 July 2016) which was relevant given the location of mining operations at that time. Based on the findings from this assessment, it is now evident that (approximately) 1.5 dBA of mine noise is present <math>&gt;630</math> Hz, primarily because mining is now closer than in 2016."</p> <p>This statement later accepted by Mr Elkin to be inaccurate – given that the report in April 2018 had identified the use of the</p> | <ul style="list-style-type: none"> <li>• SLR Winter Noise Survey (N74) (<b>OCA.0149</b>),</li> <li>• T5-97, lines 31 - 46</li> </ul>   |

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|      |                 |  | low pass filter in proximity to Mr Beutel's premises as an issue.   |   |
| 123. | 9 October 2018  | Moore records exceedance 10-11pm   |   | <ul style="list-style-type: none"> <li>Affidavit of Glenn Beutel sworn 4 August 2021 (F.0075) Exh 68 pdf p 742-743</li> </ul> |
| 124. | 19 October 2018 | NAC provides SLR Winter Survey Report to Department and acknowledges exceedances.  | NAC makes certain commitments to reduce noise including adjusting from 630Hz and changes to 2dB(A) rule and training of noise bunker staff to commence on 19 October 2018 and that NAC will have trained operators in bunker 6pm to 7am | <ul style="list-style-type: none"> <li><b>OCA.0147, OCA.0148</b></li> </ul>   |
| 125. | 31 October 2018 | SLR prepares a technical note "to explain why the current TARP noise limits should be modified based on the learnings from the June / July / August 2018 compliance noise monitoring within Acland". |   | <ul style="list-style-type: none"> <li><b>OCA.0150</b></li> </ul>   |
| 126. | Nov 2018        | SLR monitoring - exceedances identified  | Reported to NAC on 26 July 2019   | <ul style="list-style-type: none"> <li><b>OCA.0170</b></li> </ul>   |
| 127. | 7 November 2018 | Decision of Kingham P in the Land Court: <i>New Acland Coal Pty v Ashman Ors (No 7)</i> [2018] QLC 41.   |   |   |
| 128. | December 2018   | SLR monitoring exceedances identified.   | Reported to NAC on 26 July 2019   | <ul style="list-style-type: none"> <li><b>OCA.0170, OCA.0167</b></li> </ul>   |
| 129. | 4 December 2018 | The Applicant applied to the Coordinator General for its noise conditions to be changed under the SDPWOA.  |   | <ul style="list-style-type: none"> <li>Exhibit JCM-02 (F.0020) Affidavit Juliana McCosker (210310)</li> </ul>                 |
| 130. | 6 December 2018 | DES peer review report of SLR winter survey and DES monitoring report.   | Confirms that existing mine related noise levels exceed the criteria defined in Schedule D of the Environmental Authority for New Acland Mine.  | <ul style="list-style-type: none"> <li><b>OCA.0151</b></li> </ul>   |

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| 131. | 18 December 2018 | DES identifies alleged contraventions from SLR reports and invites representations   |   | <ul style="list-style-type: none"> <li>• <b>OCA.0152</b></li> </ul>                     |
| 132. | January 2019     | SLR monitoring exceedances identified.   | On one occasion, noise was 3dBA above the noise levels in EA. Reported to NAC on 26 July 2019 and recorded in SLR report August 2019.   | <ul style="list-style-type: none"> <li>• <b>OCA.0170, OCA.0166</b></li> </ul>           |
| 133. | 25 February 2019 | NAC's response to DES letter arguing exceedances don't translate to nuisance and setting out steps NAC has taken and will take to address complaints including revision of 2dBA rule.  |   | <ul style="list-style-type: none"> <li>• OCA.0234</li> </ul>                            |
| 134. | 1-2 March 2019   | DES monitoring at Mr Beutel's residence showing potential exceedances on 1-2 March 2019 with recommendation for acoustic consultant to review and noting conditions not worst case for noise.<br><br>Peer review report by ANE confirms exceedances on 2 March from 6-7pm. |   | <ul style="list-style-type: none"> <li>• <b>OCA.0154, OCA.0162, OCA.0200</b></li> </ul> |
| 135. | 11 April 2019    | Statutory Party Decision Memo  |   | <ul style="list-style-type: none"> <li>• <b>OCA.0155</b></li> </ul>                     |
| 136. | 15 April 2019    | DES issues PIN for period 21 June – 30 Aug 2018 nuisance – s440(2) EP Act 1994   |   | <ul style="list-style-type: none"> <li>• <b>OCA.0159-OCA.0161</b></li> </ul>            |
| 137. | 15 April 2019    | 'Compliance Activity Report Pre-Evaluation, Compliance Evaluation, Post Evaluation and Enforcement Response'   | <p>Sets out complaint history by Mr Beutel.</p> <p>Report notes that:</p> <ul style="list-style-type: none"> <li>- NAC was aware of the risk and that the impact was foreseeable;</li> <li>- the alleged offences are considered to have had a major impact;</li> <li>- the breach is likely to have been ongoing since 2017 after mining activities</li> </ul> | <ul style="list-style-type: none"> <li>• <b>OCA.0157</b></li> </ul>                     |

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|      |                 |   | <p>commenced in West Pit and progressed south towards Mr Beutel's residences.</p> <ul style="list-style-type: none"> <li>- the impact is considered to be 'substantial and unreasonable'</li> <li>- West Pit was mined to approx. 300m from Mr Beutel's residence</li> </ul> |   |
| 138. | 9 May 2019      | Shane Elkin writes technical note which considers the correlation/corrections to apply to the relocated SentineX monitor.   | Mr Elkin concludes that there should be a correction to the TARP noise limits ie the limits reduced to Evening 42 dB(A) (from 45dB(A)) and Night 37 dB(A) (from 40dB(A)).  | <ul style="list-style-type: none"> <li>• <b>OCA.0163</b></li> </ul>   |
| 139. | 24-28 June 2019 | SLR undertakes training of dashboard operators  |  | <ul style="list-style-type: none"> <li>• O'Dwyer Affidavit affirmed 5 August 2021 (<b>NAC.0010</b>) p25 [99]</li> </ul>                 |
| 140. | 15 July 2019    | DES provides NAC with draft EPO which notes "The results outlined in Table 2 – Measured noise level comparisons in conjunction with the detail provided in the community report indicate that you have, on 34 occasions, exceeded the noise limits defined in Schedule D - Table 1 of the EA and has contravened condition D1 of your EA, and caused unlawful environmental nuisance ..." |  | <ul style="list-style-type: none"> <li>• Letter from Tony Baker to Darren Andrews re draft EPO (<b>OCA.0164</b>) (N4S, 138A)</li> </ul> |
| 141. | 1 August 2019   | DES writes to NAC and notes that on 26 July 2019, NAC provided an SLR memo which contains information that indicates that the limits in the EA were exceeded in November 2018 and January 2019 and requesting information about that monitoring and any further monitoring that indicates exceedances to satisfy the exception reporting conditions of the EA.                            |  | <ul style="list-style-type: none"> <li>• Letter Sarah Horton to Darren Andrews (<b>OCA.0167</b>) (N105A)</li> </ul>                     |

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| 142. | 15 August 2019   | NAC writes to DES in response to DES letter dated 1 Aug 2019 (N105A) and asserts that the monitoring undertaken by SLR in November 2018 and January 2019 was not compliance monitoring and that NAC was not required to report exceedances to DES under condition H6 of the EA because that condition is confined to compliance monitoring required by the EA. | This letter explains why NAC has not reported exceedances identified in the Mason loggers, the TARP system and the Moore reports to DES. NAC took the view that it was not required to report such exceedances. | <ul style="list-style-type: none"> <li>Letter from Darren Andrews (NAC) to Sarah Horton (DES) (<b>OCA.0168</b>) (N4S, 107A)</li> </ul> |
| 143. | August 2019      | SLR report for Nov 2018 to Jan 2019 monitoring   | Reports multiple exceedances including 7 one hour periods of more than 2dBA above and 1 occurrence of 3dBA above.   | <ul style="list-style-type: none"> <li><b>OCA.0170</b></li> </ul>  |
| 144. | September 2019   | DES report noting advice by NAC that mining has slowed and will continue to slow over the coming months.   |   | <ul style="list-style-type: none"> <li><b>OCA.0171</b></li> <li>See also para 11 JER Instructions (<b>OCA.0209</b>)</li> </ul>         |
| 145. | October 2019     | 'the Applicant has been required to significantly reduce its workforce ... due to delays with achieving the approvals to commence the expansion project'   |   | <ul style="list-style-type: none"> <li>O'Dwyer Affidavit affirmed 5 August 2021, p [205(b)] (<b>NAC.0010</b>)</li> </ul>               |
| 146. | October 2019     | Environmental Noise Compass (ENC) monitoring station installed at Acland to replace the former Sentinex Noise logging station  | Note: it was not made operational until 12 March 2020: JER Noise at [102]   | <ul style="list-style-type: none"> <li><b>OCA.0177, OCA.0182</b></li> </ul>  |
| 147. | 1 November 2019  | Second decision of Court of Appeal declaring Member Smith's decision was affected by apprehended bias but declining to set it aside and order a rehearing: Oakey Coal Action Alliance Inc v New Acland Coal Pty Ltd & Ors [2019] QCA 238.  |   |  |
| 148. | 27 November 2019 | DES notifies Mr Beutel of the results of the monitoring and says that it has finalised the complaints CR88841 and CR81907.   | DES closed the complaint despite further exceedances.   | <ul style="list-style-type: none"> <li><b>OCA.0175</b></li> </ul>  |

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| 149. | 31 January 2020    | SLR memo which notes the 4.6dBA correction that must be applied to account for the new ENC monitoring station. | The memo notes:<br>“In recommending this correction, it needs to be noted the corrections stated above in Table 1 are all subject to any further (official) compliance monitoring that may be undertaken in the future. Furthermore, when Stage 3 mining operations commence, further testing will be required given that mining will occur in different locations from Stage 2 mining (resulting in different ‘areas of interest’) and at different offset distances (which will likely impact on the correction for mine noise outside 100Hz to 630Hz).” | <ul style="list-style-type: none"> <li>• <b>OCA.0177</b></li> </ul>   |
| 150. | 12 March 2020      | Sentinex TARP replaced by the new TARP and ENC dashboard system, using the new ENC noise monitor at Acland     | Conclusion drawn in JER Noise at [102] based upon review of 2020 TARP logs provided in brief.  | <ul style="list-style-type: none"> <li>• JER Noise (<b>NAC.0036</b>)</li> </ul>   |
| 151. | June - August 2020 | SLR noise monitoring   | <p>Note: TARP operators aware of when noise monitoring commenced in August: TARP operators notes “noise compliance monitoring starts tonight bench talked and I have notified 3.5”</p> <p>Mr Elkin agrees under cross examination that a question is raised over the results given that on 12 August 2020, the only attended result for that month was 48dB(A) (p18), which was some 7 to 9 dB above the unattended results is 39 to 41 dB(A).</p> <p>TARP says mine noise is 44.3dB(A).</p>   | <ul style="list-style-type: none"> <li>• <b>OCA.0184</b></li> <li>• <b>OCA.0192</b></li> <li>• <b>T 4-38, line 27-28</b></li> </ul> |
| 152. | 3 February 2021    | The High Court allowed the appeal and ordered that the applications be   |  | <ul style="list-style-type: none"> <li>• <b>OCCA v NAC [2021] HCA 2</b></li> </ul>  |

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|      |                  | referred back to the Land Court of Queensland to be reconsidered in full. The High Court set aside the decision of DEHP to approve the EAA Application. The High Court said at [57]<br>“Central to those implied conditions of that statutory process by which the recommendation is required to be produced is that the Land Court observe procedural fairness in conducting the hearing and in making the recommendation.” |  |   |
| 153. | 11 February 2021 | First Directions Hearing before President Kingham  |  |   |
| 154. | 15 February 2021 | The Applicant filed an amended Draft Environment Authority, with changes predominately reflecting the 3 Change Application approvals.  |  | <ul style="list-style-type: none"> <li>• Applicant Notice and Applicant Draft EA (<b>F.0003</b>)</li> </ul>               |
| 155. | 2 March 2021     | The Statutory Party filed submissions to the effect that the Change Application approvals 1 and 2 of the Coordinator General are invalid and legal nullities due to their being premised on recommendations of the Land Court that are tainted by bias following the High Court decision in February 2021  |  | <ul style="list-style-type: none"> <li>• Statutory Party Submissions (<b>F.0015</b>)</li> </ul>                           |
| 156. | 11 March 2021    | President Kingham makes Order 4 requiring the parties to file a document setting out any grounds upon which they no longer rely and particulars of the way in which the draft EA does not resolve the objections   |  | <ul style="list-style-type: none"> <li>• Land Court Orders 11 March 2021, Order 4</li> </ul>                              |
| 157. | By 17 March 2021 | All objectors besides OCAA had elected to become inactive parties to the MOH   |  | <ul style="list-style-type: none"> <li>• Affidavit of Mark Geritz affirmed 12 August 2021 (<b>Document 68</b>)</li> </ul> |

|      |                       |  |  |   |
|------|-----------------------|--|--|---|
|      |                       |  |  | <b>NAC.0014</b> ). Affidavit of S Ryan filed 9.3.2021 ( <b>F.0018</b> )   |
| 158. | 25 March 2021         | OCAA files grounds of objection in response to Order 4 of 11 March 2021.   |  | <ul style="list-style-type: none"> <li>OCAA Grounds of Objection and Related Matters (<b>F.0036</b>)</li> </ul>                     |
| 159. | 20 April 2021         | OCAA files amendment grounds of objection in response to Order 4 of 11 March 2021.   |  | <ul style="list-style-type: none"> <li>OCAA Amended Grounds of Objection and Related Matters (<b>F.0043</b>)</li> </ul>             |
| 160. | 11 June 2021          | President Kingham makes orders (2 and 3) striking out the document entitled “Amended Grounds of Objection on which OCAA continues to rely and related matters” filed 20 April 2021 by OCAA to the extent identified in Exhibit MAG-37 of the affidavit of Mark Andrew Geritz filed 8 June 2021 and requiring OCAA to file and serve a new document reflecting the strike out.  |  | Land Court Order 11 June 2021, Orders 2 and 3   |
| 161. | 18 June 2021          | OCAA files and serves Amended Objections in accordance with Order 3 of President Kingham’s orders date 11 June 2021.   |  | <ul style="list-style-type: none"> <li>OCAA Amended objections (<b>F.0071</b>)</li> </ul>   |
| 162. | 20 and 27 August 2021 | <p>President Kingham made orders, and gave reasons, in relation to:</p> <ul style="list-style-type: none"> <li>whether OCA could rely upon the affidavits of Mr Beutel and Ms Harrison; and</li> <li>the questions for the experts.</li> </ul> <p>In particular, President Kingham directed that “the brief will include in the list of issues the questions 6 and 7 as formulated by OCAA for each of the air and the noise experts” and gave reasons for doing so.</p> |  | <ul style="list-style-type: none"> <li>New Acland Coal Pty Ltd v Oakey Coal Action Alliance Inc. &amp; Ors [2021] QLC 29</li> </ul> |

|   |
|---|
| Moore Report – exceedances                              |
| Moore Report – inconclusive                             |
| DES/DEHP communications                                 |
| NAC event/action/communication                          |
| Consultant report (other than SLR or Objector's Report) |
| SLR Report  |
| Objectors Reports                                       |
| Court events  |

## APPENDIX 3 - CHRONOLOGY OF AIR COMPLAINTS

### OCAA Chronology – Air Complaints

#### New Acland Mine 2002 - 2021

| No. | Date              | Event                  | Commentary  | Evidence source/s   |
|-----|-------------------|------------------------|---|---|
| 1   | 20 August 2002    | Dust – property damage | “Dust ! Can we be like the residents in rosewood and have our houses washed down every 6 months? Where we live, the dust covers us more directly than others – it will affect the house paint.”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> ) |
| 2   | 10 September 2002 | Dust – general         | “terrible dust problems – already complained – wants X to go and see her after 5pm – wants something done”  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> ) |
| 3   | 26 June 2002      | Dust – property damage | “Inquired as to whether their house (roofs) can be washed down and rainwater tanks cleared out, due to dust they believe is caused by the mine. They have been told residents in Rosewood have this done once a year and are concerned mostly about what is going into the drinking water.” | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> ) |
| 4   | 17 July 2003      | Dust – general         | “Being covered in dust – started last night”  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> ) |
| 5   | 12 September 2003 | Dust – general         | “Just ringing to let you know that I’[m getting covered in dust that appears to be coming from your mine.”  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> ) |
| 6   | 16 September 2003 | Dust – general         | “the dust levels at her place were very bad yesterday (15 September 2003)”  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> ) |
| 7   | 26 September 2003 | Dust – general         | “she said they were getting covered by dust from the mine site”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> ) |

|    |                 |                             |  |   |
|----|-----------------|-----------------------------|--|---|
| 8  | 22 October 2003 | Dust – general              | “she then said that there was dust coming from over the hill”  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> ) |
| 9  | 18 May 2004     | Dust – property damage      | “Can something please be done about the amount of dust we’re getting on our roofs etc, from the stockpiles at Jondaryan? They don’t look like they’re using any sprayers at all to keep it down”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> ) |
| 10 | 21 May 2004     | Dust – breathing and health | “Only have tank water connected to their house, but the tap water contains coal dust... has severe health problems (Cancer) and ... is very concerned with the amount of coal dust collected in the filter inside her home.”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> ) |
| 11 | 2 July 2004     | Dust – breathing and health | “Just calling to let you know that the dust has increased over here in the last couple of weeks, my daughter sings, and is having trouble getting the high notes, as there is too much dust in the atmosphere”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> ) |
| 12 | 7 July 2004     | Dust – property damage      | “... we’re experiencing an excessive amount of dust from the mine over here, we’ve just recently washed our roof, and of course, disconnected the plumbing to allow the dust not to get into the tanks, however over the last 2-3 weeks, there’s been excessive dust from the mine which has settled in the tanks” | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> ) |
| 13 | 7 July 2004     | Dust - general              | “Dust problem is getting worse from the stockpiles at Jondaryan”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> ) |
| 14 | 30 July 2004    | Dust – property damage      | “In the last few weeks the dust and noise has been far greater, we had washed on the Friday night and when we went to take the clothes off the line, they were all dusty so had to wash again”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> ) |

|    |                   |                             |   |   |
|----|-------------------|-----------------------------|---|---|
| 15 | 27 September 2004 | Dust - general              | "Just ringing about the excessive dust we're getting from the mine"   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )                     |
| 16 | 19 April 2005     | Dust - general              | Complaint found to be related to paddocks ploughing   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )                     |
| 17 | 8 October 2005    | Dust - general              |   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )                     |
| 18 | 2 May 2006        | Dust – breathing and health | "Mainly a dust complaint – not just from the blast but also from operational dust" ... "She is having breathing problems [sic]. Curtains & everything [sic] is getting dust on it Windows are shut but dust is still getting in." | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )                     |
| 19 | 20 May 2006       | Dust - general              | "Letter dated 20/05/2008, with concerns regarding dust ..."   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )                     |
| 20 | 25 August 2006    | Dust - general              | "A lot of dust coming from the mine – all morning for the last couple of hours"   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )                     |
| 21 | 25 August 2006    | Dust complaint              | "Rang mine about noise and dust."   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 22 | 29 October 2006   | Dust complaint              | "I rang mine about the dust in our house when we came up from the shed at 7pm."   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 23 | 17 November 2006  | Dust - general              | "Alison called to say we cannot get our curtains cleaned" "I remember we asked NAC if we could get out curtains cleaned because they were covered in  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |

|    |                 |                |  |   |
|----|-----------------|----------------|--|---|
|    |                 |                | coal dust. I remember the walls were starting to turn black from the coal dust.”   |   |
| 24 | 29 January 2007 | Dust complaint | “Dust got bad. Rang the mine, got Sandra. Tied to get David Genn about the curtains. Dust became unbearable. Again late, I tried to ring mine, could not get an answer, left message. They did not ring me back.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 25 | 30 March 2007   | Dust - general | “On or about 30 March 2007, I recall an incident where a busload of tourists was scheduled to arrive mid-morning. Margaret informed me that she had telephoned the mine to tell them about this and asked if the dust could be reduced during this time. No changes were made. As the tourists were being welcomed and told about the history of the alpacas, I remember a lady called out words to the effect of: <i>‘Excuse me, the bus driver will have to get me out here, I am an asthmatic’</i> I believe this comment was made with reference to dust at the property. All the people returned to the bus, and it left without the guests entering the craft shop and memorabilia display.” | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 26 | 19 April 2007   | Dust           | “Manager Environment Services reported that dust from coal handling operations at the New Acland coal loading facility is sometimes causing a hazard to traffic on the Warrego Highway and may present a nuisance to residents within the township of Jondaryan. Issue was discussed with David Genn at New Hope Coal in Ipswich who advised that the site operates under a development approval issued by the Rosalie Shire Council and the company conducts  | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> )                  |

|    |              |                |  |   |
|----|--------------|----------------|--|---|
|    |              |                | regular monitoring of dust emissions (suspended and deposited dust) at the site and at the perimeter of the town. Kevern was advised by phone and a letter to the Council that Rosalie shire council is the relevant administering authority for resolving their concerns.”  |   |
| 27 | 11 May 2007  | Dust – general | “alleges that she is affected by dust”   | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> )                  |
| 28 | 17 May 2007  | Dust - general | “Letter received from EPA re formal complaint from ... about dust, noise and vibration 17/05/2007”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )                     |
| 29 | 15 June 2007 | Dust – general | “Dusty most of day. Noise bad. Too cold to ring. The dust from the mine was bad this afternoon. After we got home, the mine got very noisy, but it was far too cold to get up and ring so will in morn.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 30 | 22 June 2007 | Dust – general | “We received an email from Ross Bennett, containing lab results from testing of my and Ken as well as Brett and Margaret’s rainwater tanks. The report suggested that there was contamination of our water from faeces of animals such as possums or birds. We obtained independent testing and received a report which I recall stated the tanks contained coal dust, as well as other chemicals including lead and ammonia, amongst others, but I can no longer locate this report.” | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 31 | 27 June 2007 | Dust - general | ““Took Ken to Ian Keyes because he had an infection in his eyes.” Ian Keyes was our doctor at the time. I recall the dust was starting to make Ken’s eyes play up.’  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |

|    |               |                |  |  |
|----|---------------|----------------|--|--|
| 32 | 2 July 2007   | Dust complaint | “Rang mine about dust.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 33 | 5 July 2007   | Dust complaint | “Rang mine first up at 6am about noise all night. Rang mine about dust. Dust bad in the afternoon again,” and in more detail I wrote, “I got up at 6am. Rang mine as I had been awake most of the night. Lady from mine rang to say the dust was not from mine – it was a cold day.” | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 34 | 11 July 2007  | Dust - general | “Dust bad all night and half the morning.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 35 | 12 July 2007  | Dust - general | “Blast Dust Complaint”   | <ul style="list-style-type: none"> <li>• Ex. 675 Complaints Register 2002-2016 (<b>OCA.0035</b>)</li> <li>• Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (<b>OCA.0215</b>)</li> </ul> |
| 36 | July 2007     | Dust - general | “Phone call from EPA advised of complaint from ... regarding noise and dust.”  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )  |
| 37 | 24 July 2007  | Dust - general | Telephone call Nuisance complaint “Air : Dust : Quarry/Extraction”   | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> )   |
| 38 | 24 July 2007  | Dust - general | “On Friday 24 April 2007, I received an email from ... EPA, raising a number of questions in relation to a dust complaint from the Jondaryan Shire Council”  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )  |
| 39 | 3 August 2007 | Dust - general | “... complained about dust at the Mine. She then rang up ... at EPA to complain”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )  |

|    |                   |                |   |  |
|----|-------------------|----------------|---|--|
| 40 | 13 August 2007    | Dust - general | Dust complaint  | Ex. 675 Complaints Register 2002-2016 (OCA.0035)                     |
| 41 | 5 September 2007  | Dust - general | "I often had to shut the windows and doors to try to reduce the impacts of both noise and dust."  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 42 | 11 September 2007 | Dust - general | Dust and noise complaint  | Ex. 675 Complaints Register 2002-2016 (OCA.0035)                     |
| 43 | 12 September 2007 | Dust - general | "Current dust levels occurring over the mine (can see where they are digging and dumping) and that her house was full of dust" ... "Sick of ringing up"   | Ex. 675 Complaints Register 2002-2016 (OCA.0035)                     |
| 44 | 17 September 2007 | Dust complaint | Rang Laura about noise and dust about 9am. Rang Amanda. She still not there. After ringing, I told Laura I wanted the monitor outside our bedroom window."  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 45 | 20 September 2007 | Dust - general | "Rang Amanda Cleary. Rang Donna at Ray Hopper. We are going to the meeting with Ray Hopper." I recall that Ray Hopper was an independent MP within the government at the time. He was trying to help improve our situation with mine impacts. At this point, we were meeting with him because we were trying to find options to ease the noise and dust impacts on us.' | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 46 | 21 September 2007 | Dust - general | 'Amanda Cleary rang to say she had meeting with mine manager about their plans on noise, dust, lights. They are to give her a plan on how they are going to keep noise, dust and lights down. She will ring me. The mine got noisy about 4am but I shut the window and got some sleep so I did not ring at all.'  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |

|    |                   |                |  |  |
|----|-------------------|----------------|--|--|
| 47 | September 2007    | Dust - general | “I recall that complaining to DEHP rarely resolved our concerns about noise and dust. For instance, often the worst impacts were at night, but we had instructions from DEHP to only call them when the dust is bad between 9am and 4pm. Sometimes DEHP staff informed me that they had talked to NAC directly about my complaints and had been reassured by NAC that NAC were compliant, or that it was an accident and it wouldn’t happen again.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 48 | September 2007    | Dust – general | “I recall that the noise and dust was so bad at this point in time, that it didn’t matter whether the windows were open or shut. My bedroom was on the western side of the house and Ken and I couldn’t hear the wireless in there, even with all of our windows and doors shut. I very seldom could open any windows. Occasionally, in the summertime, it got so hot and stuffy, I would open the windows up and the next thing the house was full of dust. I tried to clean our windowsills of coal dust every morning.” | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 49 | 22 September 2007 | Dust - general | “Mine got noisy at 4am. Shut window and did not ring up. Dust over houses but we at the yards with Alpacas and did not ring. Dust was bad in our bedroom and when we came inside. Before I could ring mine they had closed down for the weekend.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 50 | 27 September 2007 | Dust complaint | “Rang the mine 5:55pm. Dust only. Only got answering machine. Laura rang to say she put a letter in the mailbox giving me David Moore’s phone number for noise. Dust was bad all day from about 11am. It really got to me by night.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 51 | 4 October 2007    | Dust - general | “Dusty this morning and all day. Woke me at 3:15am and noise worried me the rest of the night. Because   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |

|    |                  |                       |  |  |
|----|------------------|-----------------------|--|--|
|    |                  |                       | of the noise from 3:15am I have been very tired all day.”  |  |
| 52 | 10 October 2007  | Dust - water sampling | “Amanda Cleary rang. She said she had been sick and was checking on what was happening and also said we could have our tank tested no charge to us.” At this point in time I remember we were concerned about coal dust being in our water supply. We had only rainwater for our houses. The tanks were fed by drains along the periphery of the roof of our house. At some point, the water started coming out of the taps with a green tinge and it had a foul taste. We would boil it before drinking it, or try to get some from a friend or neighbour.’ | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 53 | 25 October 2007  | Dust – water sampling | “Laura rang to set a time to sample the water. Laura rang to come here at 8am tomorrow. Had a big discussion on it coming from our tank from bottom. I thought I had her going to do that. I got out of watching alpacas.” This diary entry relates to the fact that I believed NAC would take a water sample from the bottom of our tank where I believed the coal dust had settled. Instead, they were to take it from the top. I believe this wasn’t an accurate representation of the quality of the water.’   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 54 | 5 November 2007  | Dust - general        | “Rang Donna about what Ray Hopper is up to with the mine meeting.” We were still trying to get help from Ray Hopper at this time to solve the issues we were having with noise and dust.’  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 55 | 15 November 2007 | Dust – general        | “Mr and Mrs s I are complaining about the dust and noise allegedly coming from the New Acland Coal Mine.”  | 200302 Ecotrack Enquirer Extract for NAC (OCA.0250)                  |

|    |                  |                |  |   |
|----|------------------|----------------|--|---|
| 56 |                  | Air - odour    | "Coal dust and odour in the evenings usually about 11pm and 2am. Complainant notices the odour when the wind is blowing from the East."  | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> )                  |
| 57 | 3 January 2008   | Dust complaint | "Rang mine about dust all night. Spoke to Laura. I was awake with the dust from the mine most of the night as they were dumping soil all night. I rang Laura about the dust."  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 58 | 8 January 2008   | Dust – general | "Our family started to investigate moving elsewhere because of the noise and dust impacts from the mine. Our tourist business ceased to be operational, and health conditions for us and our animals had become intolerable."                          | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 59 | 28 February 2008 | Dust - general | "Letter of complaint received regarding persistent coal dust deposits in the township of Jondaryan" from Uniting Church Jondaryan  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )                     |
| 60 | 28 February 2008 | Dust - general | Formal complaint via Rosalie Shire Council: "Council has received a formal complain regarding the high level of air pollution created by the New Acland Coal Mine Stockpile which is located approximately 1km to the east of the Jondaryan Township." | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )                     |
| 61 | 30 March 2008    | Dust - general | "Dust bad from mine. I cleaned the house out this morning. The dust was bad this afternoon."   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 62 | 20 May 2008      | Dust - general | "Letter dated 20/05/2008, with concerns regarding dust ..."  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )                     |
| 63 | 27 May 2008      | Dust - general | "called to voice concerns"   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )                     |

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| 64 | 13 June 2008   | Dust complaint | “Rang left message about...dust 11pm.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 65 | 25 July 2008   | Dust - general | “The mine was dusty through the night.”<br>“The mine got going and the dust got me through the night.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 66 | 26 July 2008   | Dust - general | “I choked up with mine dust. It was a terrible day with fine dust. I stayed in the house most of the day.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 67 | 31 July 2008   | Dust - general | “Dust bad from mine.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 68 | 6 August 2008  | Dust - general | “The dust bad from the mine this afternoon and night.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 69 | 7 August 2008  | Dust complaint | “Rang the mine – dust is terrible, about 5:15pm. The dust in the afternoon was unbearable and I was crook from it, rang the mine.”                                     | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 70 | 8 August 2008  | Dust complaint | “Mine blasted. Dust came this way. Rang mine 5:15-5:30pm about the dust again. I was still crook from the mine and then they had the dust bad again in the afternoon.” | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 71 | 14 August 2008 | Dust - general | “Had a big talk to Paul Statham about...dust.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |

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| 72 | 18 August 2008   | Dust complaint | “Rang mine about dust. It was a horrid day again and the dust was terrible and it is cold.” | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 73 | 19 August 2008   | Dust – general | “Dust bad.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 74 | 20 August 2008   | Dust - general | “The dust, bad again. The dust was bad in evening again.”                                   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 75 | 21 August 2008   | Dust - general | “Dust bad from mine in afternoon.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 76 | 22 August 2008   | Dust - general | “Dust bad.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 77 | 3 September 2008 | Dust – general | “Dust bad at night.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 78 | 4 September 2008 | Dust - general | “Dust bad at night.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |

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| 79 | 8 September 2008  | Dust - general   | “The dust bad all night.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 80 | 9 September 2008  | Dust - general   | “Rang Paul Statham at mine to get dust cleared for weekend while Dan here. Dust bad.” Dan is our grandson who was little at the time and an asthmatic.’   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 81 | 10 September 2008 | Dust - general   | “Dust bad. Having trouble with dust again.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 82 | 11 September 2008 | Dust – breathing and health  | “Marg had to wear a mask all night. Dust bad. I had a bad chest and throat again.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 83 | 29 September 2008 | Dust - general   | “Mine dust bad. I got really bad from it and I had to leave the shed.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 84 | 7 October 2008    | Dust complaint   | “Rang mine about dust 5:45...The dust was terrible, so rang mine. Brett rang when he got home, they told him it was the drought.” At the time I remember that we were not experiencing a significant drought.’  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 85 | 8 October 2008    | Dust – breathing and health<br>Complaint about handling of complaint | “Two issues:<br>1. Yesterday mother in law ... called before 6pm and the person answering the phone took a condescending view, laughed at her & told her their was a drought on.”<br><br>“2. Yesterday mine was clearly the dust source it is not liveable (wife & kids coughing & sick all the | Ex. 675 Complaints Register 2002-2016 (OCA.0035)                     |

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|    |                    |                             | time). ... thinks that the mine are in denial that it doesn't produce dust that although we undaterake [sic] monitoring we (mine) & fulfilling our legal obligations we are not fulfilling our moral obligations, Heard that the water trucks were not running due to lack of water. Although they are in negotiations [sic] to brought out there is still going to be a 6-8 month period to move and which they can't live in this dust." |  |
| 86 | 22-23 October 2008 | Dust – general              | "Dust was bad the night before (Tuesday night) & when she got back home after lunch time the dust was really bad The dust got thicker in the afternoon & after dark."  | <ul style="list-style-type: none"> <li>• Ex. 675 Complaints Register 2002-2016 (<b>OCA.0035</b>)</li> <li>• Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (<b>OCA.0215</b>)</li> </ul> |
| 87 | 22 October 2008    | Dust – breathing and health | "Didn't notice dust before dark but was sneezing [sic] when went to bed. This morning the effects of the dust were obvious (in chest), started coughing. Classic (obvious) symptoms is the feeling of dust in the lungs when start walking around start wheezing"<br>...   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )  |
| 88 | 22 October 2008    | Dust – breathing and health | "... still being covered in dust"<br>"Dust not the heavy stuff you can see but know its there due to the effect on her health, can smell the dust. Know about the PM10 monitoring but dust smaller than that. Unless monitoring here all the time date means nothing. ... can't work outside in this sort of weather (winds getting up SW). Can't  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )  |

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|    |                  |                             | have a social life because visitors leave coughing& spluttering. Can't keep going on as its affecting her health." ...   |  |
| 89 | 22 October 2008  | Dust – general              |  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )                      |
| 90 | 12 November 2008 | Dust - general              | "The dust is bad late afternoon and night."  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 91 | 13 November 2008 | Dust – breathing and health | "I was not good in the chest all day." I recall that my chest problems were as a result of the mine dust.'   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 92 | 23 November 2008 | Dust complaint              | "Rang mine 5:45, only answering machine. Rang mine 6:10, got Don. Dust," and in more detail, "The wind was a gale all day from southwest. The dust was shocking. I rang mine 5:45 only got answering machine. Rang again at 6:10 got Don, but then I was a mess and could hardly speak or breathe."        | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 93 | 24 November 2008 | Dust complaint              | "Rang mine 5:20. Dust storm. Sean Riley 10:40am appointment. Rang mine 7pm. Got Tony. Rang the mine about the dust as soon as I got home from Highfields. Ken and I went to Sean Riley...I have to have Xray about the dust." Sean Riley was my doctor at the time at Highfields District Medical Centre.' | E x. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 94 | 1 December 2008  | Dust - general              | "Dust bad. Did not ring. I started to clean up and washed all the outside of the house with a hose. Started to get the back room ready to vacuum clean."   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |

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|-----|------------------|-----------------------------|---|---|
| 95  | 1 December 2008  | Dust – property damage      | “Black dust fallen on house from the mine during the rain storms 10 days ago. ... Suspect it is also in the tank. Dust is stuck to 2/3 of house” ...  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )                     |
| 96  | 5 December 2008  | Dust – health and breathing | “Woke with dust making me cough because I left the bedroom window half open and front door open.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 97  | 6 December 2008  | Dust - general              | “Mine dust bad and I had one half window open in bedroom.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 98  | 7 December 2008  | Dust - general              | “The dust was about again but I did not need mask. Had to have house shut up all night.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 99  | 14 December 2008 | Dust - general              | “The house had to be shut because of the dust.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 100 | 15 December 2008 | Dust complaint              | “I rang the mine 10:30pm. Had to have the house shut up, dust bad.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 101 | 2008             | Dust - general              | “I was concerned about the nature and volume of dust my property was receiving, and in 2008, drew Paul Statham’s (NAC Environment Officer) attention to the inside of a storm water overflow pipe on the tank at the back of the hall. It had accumulated a layer of dark residue.” | 210804 Affidavit of Glenn Norman Beutel                                       |
| 102 | 3 January 2009   | Dust – health and breathing | “Dust bad wore mask.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |

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| 103 | 4 January 2009 | Dust – health and breathing                           | “I was crook all day from the dust so I stayed inside and did very little.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 104 | 3 March 2009   | Dust – health and breathing                           | “It was so hot all day. I not feeling the best all day. Dust I think the trouble.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 105 | 4 March 2009   | Dust - general  | “Dust bad overnight.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 106 | 5 March 2009   | Dust - general  | “Dust shocking all day and night. Noise annoyed me in bed. The noise and dust was very bad when I got home. Marg and Brett went up to Berghoffer Rd with agent to talk about buying their place.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 107 | 6 March 2009   | Dust - general  | “Mine blast. Dust floated over Marg’s house. I took photos. Dust bad,” and in more detail, “We had a mine blast at 11:30am. The dust came over and on Marg’s house and shed and the end of the back area here. Did some spinning. Too dusty to do much else. All the area I cleaned and Falcon covered in dust again.”                        | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 108 | 10 March 2009  | Dust – property damage<br>Dust – breathing and health | “Complaint is that house is covered in dust originating from New Acland Coal Mine's operations. When the breeze drops at night the dust hangs in the air and occupants are having trouble breathing. They have to close the house up before dark and on bad nights the dust still penetrates into the house. The dust occurs Monday to Sunday | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> )                  |

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|     |               |                             | <p>6pm to 7am and sometimes during the day as well when overcast or when the wind is from the south west. The dust problem has been happening for 6.5 years but the night time dust has got considerably worse since July 2008 when they started the new pit. Complainant states that after 8 months of the dust she is having a lot of side effects including being stuffed-up, headaches, coughing, lack of energy and stamina, reflux and sometimes dizziness. She regularly wears a dust mask outside and sometimes inside and while trying to sleep. The house is very hot being closed up which affects her children studying for senior school.”</p> |   |
| 109 | 11 March 2009 | Dust – breathing and health | Dust complaint released by EPA: “Dust hangs in the air at night when the breeze drops causing breathing difficulties Dust lasts for 10 hours overnight but sometimes for 24 hours when overcast.... Dust has got considerably worse since new pit began EPA Requested PM10 and dust deposition data”  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )                     |
| 110 | 8 April 2009  | Dust – breathing and health | “I choked up with dust checking alpacas, wore mask to do chores.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 111 | 16 April 2009 | Dust complaint              | “I rang mine twice and left message and then Frank rang 10:20pm and they cut the noise back but the dust was still there even though they watered.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |

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| 112 | 29 April 2009 | Dust complaint              | <p>“I rang mine and got Tony at 7:45 about dust and how I had masks since getting home.”</p> <p>“The dust was shocking when we got home and bad all night. I rang mine about the dust and got Tony as he could not do anything about it. I told him I record it and say I was sick from it.”</p> | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 113 | 2 May 2009    | Dust – breathing and health | “The dust bad outside most of the day. I had a mask on most of the day. Lyn said she could smell it.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 114 | 3 May 2009    | Dust – breathing and health | “Lyn said her chest tight last night from dust. Dust only bad on/off today.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 115 | 5 May 2009    | Dust - general              | “The dust bad overnight. Tried to ring Ray’s [Hopper] office.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 116 | 7 May 2009    | Dust – general              | “Dust bad did not ring. The dust was bad when I got home 10:30pm but did not ring.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 117 | 8 May 2009    | Dust complaint              | “Rang Laura at mine. She not there at 10:20am about dust all night. Laura rang back. Rang mine 5:10pm about dust, got Lynsay. Laura rang back and I broke down while talking to her.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 118 | 9 May 2009    | Dust complaint              | “Rang mine 4:40pm about dust, Don answered,” and in more detail, “The dust got bad to rang mine 4:40pm got Donnie. Dust bad all night still as I had bad night again.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |

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| 119 | 11 May 2009 | Dust complaint | “Dust bad at 3pm. Rang mine 5pm only got message bank.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 200 | 12 May 2009 | Dust complaint | “Tried to ring Laura after 8am, left message. Rang mine 4:40pm got Lynsay but it did not do any good with the dust. Laura did not ring back. Rang mine 4:40pm got Lynsay. The dust was better overnight but the wind changed to East.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 201 | 14 May 2009 | Dust complaint | “Rang mine 10:30pm. Noise. Mine blast. Dust came over house. Took photos. Dust not good all afternoon. I stayed in the house most of the day. The dust was bad. Laura rang at 8am and said there would be a blast at 11am. The dust from the blast came over the house. I took a couple of photos. Had a long talk to Laura about everything and nearly had a row with her over the dust and their monitors that they only have four times a year and not always that many.” | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 202 | 15 May 2009 | Dust - general | “Dust bad from mine. The dust was bad but I did not ring. I get nowhere when we do ring. I tried not to be outside much.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 203 | 21 May 2009 | Dust - general | “Bad dust from mine by night. I started to clean the dust out of the house but by night we had bad dust from the mine again.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |
| 204 | 16 May 2009 | Dust - general | “Dust shocking did not ring. The dust was shocking all day with a South Westerly wind. Could not even open the front door all day.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (OCA.0215) |

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| 205 | 1 June 2009  | Dust - general              | “Bad dust during evening. It blew a gale all day but luckily from the north-east. The dust was bad in the Gully and over road all day and started to get bad around the houses at chore time as the wind dropped. Cloudy all day and dust was bad late.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 206 | 5 June 2009  | Dust - general              | “Mine woke me about 4am, dust bad all afternoon.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 207 | 15 June 2009 | Dust – breathing and health | “concerns for the health of people living in the area surrounding the Jondaryan coal transfer dump and train line linking the new hope and Ackland coal sites. My parents in-law reside and conduct business in Jondaryan and we visit them regularly with our children. I have over the past few years began having breathing difficulties when we go to stay at Jondaryan, this has got to the point of chest infections if we stay for any length of time. I was recently diagnosed with prostate cancer and during the various scans it has been found that I have granulomas in both of my lungs. My Surgeon has said this is most likely due to being exposed to a dusty environment. We have just spent several days visiting Jondaryan and surprise , surprise I have a chest infection again. During this visit I had a good look at the house and found coal dust to be on everything, and an alarming amount of coal dust. I have watched the site and you can see massive clouds of coal dust billowing from the site all day long, plus driving towards Jondaryan into the sun, | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> )                  |

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|     |              |                | you see coal dust being picked up by vehicles on the highway. The bulk of the coal loading appears to be conducted at night, so the particulate level will be higher again at night” ... |  |
| 208 | 25 June 2009 | Air – odour    | “Complaint received form ... regarding carbide smell, and requested someone to come and smell it”  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )  |
| 209 | 2 July 2009  | Dust – general | “Complaint about dust coming from South Pit excavator circuit”   | <ul style="list-style-type: none"> <li>• Ex. 675 Complaints Register 2002-2016 (<b>OCA.0035</b>)</li> <li>• Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (<b>OCA.0215</b>)</li> </ul> |
| 210 | 3 July 2009  | Dust complaint | “Rang mine 6:30pm about dust, got Don,” and in more detail, “It was a shocking day with westerly wind and dust. I rang mine got Donnie.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 211 | 4 July 2009  | Dust - general | “Dust bad, did not ring. It was a horrid cold day and windy.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 212 | 13 July 2009 | Dust - general | “Dust bad when we got home. The dust was bad and got worse in the afternoon as went on.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 213 | 14 July 2009 | Dust - general | “Dust bad. I did not ring. I got home early and the dust was bad again.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 214 | 14 July 2009 | Dust – general | “Complaint regarding dust for the last 3 days”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )  |
| 215 | 15 July 2009 | Dust – general | “Complaint about dust all the time”  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )  |

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| 216 | 15 July 2009 | Dust– general               | “complaint regarding dust over a period of days (Sth-westerlies)”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )  |
| 217 | 15 July 2009 | Dust complaint              | “Dust bad all afternoon. I rang Laura and went for her. Mine blast but I was not rung. We had bath at Marg’s then I took Ken to Keith Zebell. I now have to put 2 lots of drops in his eyes 4 times a day. Keith is going to write a letter about the dust getting in Ken’s eyes. I hope he does”. I made another entry about the same, “The dust was bad this afternoon after we got home. I rang Laura and went for her when she started all her rubbish again. Mine blast was not rung.” | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 218 | 19 July 2009 | Dust – general              | “Dust complaint” ... “coming from both pits”  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )  |
| 219 | 19 July 2009 | Dust – health and general   | “Dust very bad. Ken rang mine and got Mark approx. 6pm,” and in more detail, “I got bad with dust again. Ken rang mine and got Mark. I could hardly talk or breathe.” It was very rare that Ken rang the mine instead of me so this day I would have been particularly sick.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 220 | 21 July 2009 | Dust – health and breathing | “Dust bad late. I went to tennis, had trouble getting rid of dust off my lungs at tennis.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 221 | 22 July 2009 | Dust – general              | “Dust complaint regarding the last couple of weeks”   | <ul style="list-style-type: none"> <li>• Ex. 675 Complaints Register 2002-2016 (<b>OCA.0035</b>)</li> <li>• Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (<b>OCA.0215</b>)</li> </ul> |

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| 221 | 23 July 2009  | Dust – general | “Complaint regarding ongoing dust problem.”   | <ul style="list-style-type: none"> <li>• Ex. 675 Complaints Register 2002-2016 (<b>OCA.0035</b>)</li> <li>• Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (<b>OCA.0215</b>)</li> </ul> |
| 223 | 23 July 2009  | Dust – general | “Dust has been a problem all day.”  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )  |
| 224 | 25 July 2009  | Dust - general | “Dust got bad late afternoon did not ring.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 225 | 27 July 2009  | Dust - general | “Dust bad late.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 226 | 31 July 2009  | Dust – general | “Rang mine. Got Dave Wood 5pm about dust,” and in more detail, “I rang mine again 5pm about dust. Got Dave Wood. He was going to tell Tim when he got back from his rounds.”                          | <ul style="list-style-type: none"> <li>• Ex. 675 Complaints Register 2002-2016 (<b>OCA.0035</b>)</li> <li>• Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (<b>OCA.0215</b>)</li> </ul> |
| 227 | 3 August 2009 | Dust – general | “excessive dust”  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )  |
| 228 | 4 August 2009 | Dust - general | “Mine blast. Bad fine dust all afternoon. I did not do any chores as the fine dust was bad again. I have put towels up around bedroom windows against fine dust and think it has done a bit of good.” | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 229 | 5 August 2009 | Dust- health   | “Bleeding nose on waking. The dust was bad morning. Very bad when we got home,” and again, “The dust was bad before we left and bad when we got home. We got home about 7:15pm.”                      | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |

|     |                |                             |  |  |
|-----|----------------|-----------------------------|--|--|
| 230 | 6 August 2009  | Dust - general              | “Dust still bad.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 231 | 7 August 2009  | Dust – general              | “really dusty around house”  | <ul style="list-style-type: none"> <li>• Ex. 675 Complaints Register 2002-2016 (<b>OCA.0035</b>)</li> <li>• Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (<b>OCA.0215</b>)</li> </ul> |
| 232 | 8 August 2009  | Dust - general              | “Dust not bad overnight but a lot about during day,” and again, “The dust was bad afternoon till dark but was good during night.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 233 | 9 August 2009  | Dust – health and breathing | “In bed sick with dust. Could not breathe, had to have steam bath. I changed the sheets and washed and cleaned the dust off the falcon and got all the dust on my chest. Ended up sick and went without dinner and went to bed. Had bad coughing session, all the trouble I got with the dust, had bad night.” | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 234 | 13 August 2009 | Dust – general              | “Dust issue since 2:30pm”  | <ul style="list-style-type: none"> <li>• Ex. 675 Complaints Register 2002-2016 (<b>OCA.0035</b>)</li> <li>• Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (<b>OCA.0215</b>)</li> </ul> |
| 235 | 15 August 2009 | Dust – general              | “Dust was getting quicker”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )  |
| 236 | 15 August 2009 | Dust – health and breathing | “Dust terrible 5pm. I had to wear a mask in the house getting ready to go to Toowoomba.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |

|     |                |                             |  |  |
|-----|----------------|-----------------------------|--|--|
| 237 | 17 August 2009 | Dust – general              | “Rang Laura and asked her to ask her boss how to eat with a mask on. A storm blew up late with big heavy dust blowing off mine this way.”  | <ul style="list-style-type: none"> <li>• Ex. 675 Complaints Register 2002-2016 (<b>OCA.0035</b>)</li> <li>• Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (<b>OCA.0215</b>)</li> </ul> |
| 238 | 18 August 2009 | Dust – general              |  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )  |
| 239 | 21 August 2009 | Dust – breathing and health | “Complaint regarding dust and health issues”   | <ul style="list-style-type: none"> <li>• Ex. 675 Complaints Register 2002-2016 (<b>OCA.0035</b>)</li> <li>• Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (<b>OCA.0215</b>)</li> </ul> |
| 240 | 22 August 2009 | Dust – general              | “Dust – excessive dust, couldn’t stay outside and do chores”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )  |
| 241 | 22 August 2009 | Dust – general              | Rang mine. Bad dust. Got Cam 5pm,” and in more detail, “We drove in from Jondaryn where we had been all day. Got home to terrible dust. Rang mine and got Cam. I did have trouble with dust in house again.” | <ul style="list-style-type: none"> <li>• Ex. 675 Complaints Register 2002-2016 (<b>OCA.0035</b>)</li> <li>• Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (<b>OCA.0215</b>)</li> </ul> |
| 242 | 23 August 2009 | Dust - general              | “Dust again did not ring.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 243 | 24 August 2009 | Dust - general              | “Dust bad again.”<br>“The dust was bad again.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 244 | 27 August 2009 | Dust – general              | “dust from dump”   | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> )   |

|     |                   |                             |   |  |
|-----|-------------------|-----------------------------|---|--|
| 245 | 27 August 2009    | Dust - general              | "Dust bad night. The dust was bad in afternoon."  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 246 | 28 August 2009    | Dust - general              | "Dust bad at night."  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 247 | 29 August 2009    | Dust - health               | "Dust. Margaret still sick."  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 248 | 2 September 2009  | Dust – breathing and health | "Complaint received from ... regarding dust and associated health issues"                                 | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )  |
| 249 | 8 September 2009  | Dust – general              | "Received missed call on OCE from ... regarding dust complaint"   | <ul style="list-style-type: none"> <li>• Ex. 675 Complaints Register 2002-2016 (<b>OCA.0035</b>)</li> <li>• Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (<b>OCA.0215</b>)</li> </ul> |
| 250 | 9 September 2009  | Dust – breathing and health | "Complaint made by ... regarding dust and associated health issues"                                       | <ul style="list-style-type: none"> <li>• Ex. 675 Complaints Register 2002-2016 (<b>OCA.0035</b>)</li> <li>• Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (<b>OCA.0215</b>)</li> </ul> |
| 251 | 10 September 2009 | Dust complaint              | "Rang mine after Andrew Walker 8:20. Got Cindy. Rang 8:50, got Cindy. Andrew rang 3:10pm. Dust bad again" | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 252 | 14 September 2009 | Dust – general              | "General complaints about ... dust from mining activities"  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )  |

|     |                   |                |  |  |
|-----|-------------------|----------------|--|--|
| 253 | 14 September 2009 | Dust – general | “Dust complaint – she said dust was hanging in the air around the house”   | <ul style="list-style-type: none"> <li>• Ex. 675 Complaints Register 2002-2016 (<b>OCA.0035</b>)</li> <li>• Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (<b>OCA.0215</b>)</li> </ul> |
| 254 | 16 September 2009 | Dust complaint | “Dust bad. Rang mine 5:20pm. Got message machine again. The wind dropped and the dust got bad about 5pm. I rang mine 5:20 but only got answering machine.”                                   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 255 | 17 September 2009 | Dust – general | “... left a message on OCE phone complaining that the dust was getting bad since the wind had dropped”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )  |
| 256 | 18 September 2009 | Dust – general |  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )  |
| 257 | 18 September 2009 | Dust – general | “Rang mine 3:30pm. Not sure who I got. Cam I think, hard to hear. Rang mine 5:25pm dust worse. Got Cam.”   | <ul style="list-style-type: none"> <li>• Ex. 675 Complaints Register 2002-2016 (<b>OCA.0035</b>)</li> <li>• Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (<b>OCA.0215</b>)</li> </ul> |
| 258 | 19 September 2009 | Dust complaint | Rang mine dust 5pm. Got Cam,” and in more detail, “Dust most of the day. Rang and got Cam 5pm as the wind had changed and was really bad. I had trouble breathing but not as bad as before.” | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 259 | 24 September 2009 | Dust - general | “Dust not good. Mine blast the dust, Marg’s shed and our house copped it. The noise was not good overnight. The dust was not good.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |

|     |                   |                             |   |  |
|-----|-------------------|-----------------------------|---|--|
| 260 | 25 September 2009 | Dust - general              | "Dust terrible."  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 261 | 27 September 2009 | Dust - general              | "Dust very bad."  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 262 | 28 September 2009 | Dust complaint              | "Rang mine, dust 5:40pm. Got John Thompson."  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 263 | 11 October 2009   | Dust – breathing and health | "Ministerial received (CTS 12761/09) from ... complaining about the dust nuisance from New Acland Coal Mine affecting his family's health." | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> )   |
| 264 | 12 October 2009   | Dust – general              | EPA (Brisbane Office) correspondence re formal dust complaint from Jondaryan  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )  |
| 265 | 15 October 2009   | Dust – general              | "Dust blowing over her house"   | <ul style="list-style-type: none"> <li>• Ex. 675 Complaints Register 2002-2016 (<b>OCA.0035</b>)</li> <li>• Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 (<b>OCA.0215</b>)</li> </ul> |
| 266 | 20 October 2009   | Dust - general              | "Mine blast 3pm. Black dust."   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 267 | 23 October 2009   | Dust - general              | "Had door open at bedtime but dust got bad and had to shut door."   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |
| 268 | 24 October 2009   | Dust - general              | "Had to shut door at dark. A bit of dust about again. Dust got bad after dark."   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> )  |

|     |                  |                             |  |   |
|-----|------------------|-----------------------------|--|---|
| 269 | 25 October 2009  | Dust – health               | “Dust bad overnight. I was not good again this morn.<br>The dust got to me.  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 270 | 4 November 2009  | Dust – general              | Letter received from Jondaryan Residents Group (dated 27/10/2009) “noted the last pM10 monitoring results for Jondaryan which are regularly provided to ... were above long term average and that they are planning to hold a meeting on 27/11/2009”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )                     |
| 271 | 12 November 2009 | Dust - general              | “Dust bad when I got home 9:45am,” and again, “the dust was bad when I got home.”  | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 272 | 31 December 2009 | Dust – breathing and health | “re continued dust nuisance from New Acland Coal Mine which affects the health of his family. Ministerial CTS00570/10 sent stating that DERM has requested NAC to undertake more comprehensive PM10 monitoring and analysis which includes additional monitoring sites near the property and at control sites” | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> )                  |
| 273 | 26 January 2010  | Dust complaint              | “Rang mine and got Woody about dust,” and in more detail, “The dust was bad all day and got worse at dark so I rang mine and got Woody.”   | Ex. 3 Affidavit of Pamela (Aileen) Harrison sworn 4.08.21 ( <b>OCA.0215</b> ) |
| 274 | 29 March 2010    | Air – smoke                 | “Burning off in Acland Township – spoken to house removal people before about burning off, wasn’t notified This time. Concerned no supervision, wasn’t   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )                     |

|     |                |                             |   |  |
|-----|----------------|-----------------------------|---|--|
|     |                |                             | notified and burning of building materials – smoke in house And falling in rainwater drinking take – health concerns.”  |  |
| 275 | 8 April 2010   | Dust – general              |   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |
| 276 | 21 April 2010  | Dust – breathing and health | “Letter complaint regarding coal dust and health concerns”  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |
| 277 | 27 July 2010   | Dust – general              | Email “been in the area last 2.5-3 years and last 6 months has noticed coal dust on house and is concerned with contamination of drinking water supply and enquired what filtering we suggested/any health affect. Also concerned with dust emission from future mine expansion activities”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |
| 278 | 2010           | Dust – property damage      | “The coal dust is ruining his property ....”<br>“Coal dust is getting into the indoor pool and in the shade sails”  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |
| 279 | 13 August 2010 | Dust – general              | “Compalint regarding dust particles of coal. She had placed a tin lid of paint on ground and half hour later dust so sticking to the lid. The dusk is particulary bad when wind is blowing. She said she has to shut up her house to avoid dust going everywhere. She believes the dust is coming from the coal trains who have their loads uncovered. Also believes the water may be contaimitated witht the dust” | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> ) |
| 280 | 25 August 2010 | Dust – property damage      | “September 2010 Department of Main Roads via TRC has refered to DERM a complaint from Mr ...  | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> ) |

|     |                  |                        |   |  |
|-----|------------------|------------------------|---|--|
|     |                  |                        | alleging that trucks travelling along Bridge Street from New Hope Coal are releasing coal dust that is causing<br><br>damage to his property”   |  |
| 281 | 25 October 2010  | Dust – general         | “Dust is getting worse had to come inside and get her dust mask”  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |
| 282 | 28 October 2010  | Dust – general         | NAC Community Meeting “Excessive dust coming from Jondaryan Rail Sliding which is contaminating their drinking water”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |
| 283 | 15 November 2010 | Dust – general         | Complaint via DERM from 18 October 2010 regarding dust contaminating drinking water supply  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |
| 284 | 10 April 2011    | Dust – general         | “As we have not heard from your self or any one else from NAC for a period we feel that we are not being taken seriously” [...] “this would easily show we have a large amount of coal dust entering our homes. With the results from the bottle testing i would like a copy of these results (from the last 3 years) for our records as promised at the last town planning.” | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |
| 285 | 10 August 2011   | Dust – property damage | “Substance on roof that ... believe could be coal dust”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |
| 286 | 16 October 2011  | Dust – property damage | “Letter received regarding amount of coal dust on roof, uncovered train loads and damage to roof due to coal dust. Letter was sent to Office of Premier, Coordinator General & New Hope”  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |
| 287 | 22 August 2011   | Air – chemicals        | “A member of public Mr Glen Beutel contacted Pollution Hotline about spray drift at Acland. Kim   | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> ) |

|     |                  |                             |  |  |
|-----|------------------|-----------------------------|--|--|
|     |                  |                             | from pollution Hotline contacted Toowoomba office about this issue. Rajesh got details from Pollution Hotline. Matt from Pollution Hotline updated Rajesh that aerial spray from plane has led this complainant to contact DERM. I contacted Mr Glen Beutel for further details. Mr Beutel was not happy with the spraying of chemical in his neighbourhood on a windy day. He was not sure what the chemical is but alleged that some sort of poison is sprayed on a windy day and it is spreading everywhere. he was concerned about the health of few other people who live in the area. Mr Beutel was not sure if the alleged source of this chemical drift is New Acland pastoral or the New Acland Coal” |  |
| 288 | 8 November 2011  | Dust – property damage      | Email trail on dust monitoring “meeting regarding blast fumes”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |
| 289 | 8 February 2012  | Dust – breathing and health | “Letter complaint regarding coal dust and health issues.”  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |
| 290 | 24 February 2012 | Dust – breathing and health | “Complaint received regarding continuous black deposits in drinking water supply after rain. Concerned about particles in air and impact on health. DERM has writtten to Mr asking permission for the details of his complaint to be disclosed in order for the complaint to be investigated”  | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> ) |
| 291 | 13 April 2012    | Dust – breathing and health | “Issues with the health of herself and her horses. She claims that she has spent over \$12,000 addressing lung infections in her horses and  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |

|     |                |                             |   |  |
|-----|----------------|-----------------------------|---|--|
|     |                |                             | <p>personally experiences coughing, sleep issues and reduced general health. She claims she only notices these health issues when at Jondaryan.</p> <p>She stated that whilst the dust doesn't appear as bad in other areas of Jondaryan, her father's guys is ... and it is clear that the problem is worse here than in other parts of the town. She said that coal dust covers everything in both her father and her house.”</p> <p>“... stated that she is frustrated and at breaking point as she cannot continue to keep living in these conditions. She acknowledged that everyone from New Acland, in particular... has been good to her and so she didn't want to use drastic tactics. However things haven't changed and the dust is getting worse. ... said she is tired of not getting anywhere and would change her methods ...”</p> |  |
| 292 | 9 August 2012  | Dust – general              | “Air : Dust : Process/Stockpile”  | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> ) |
| 293 | 16 August 2012 | Dust – general              | “Air : Dust : Process/Stockpile”  | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> ) |
| 294 | 3 October 2012 | Dust – breathing and health | “spoke about his concerns relating to: potential for coal dust to enter their property, potentially affecting their health.” [...] “said their son has had spots for ~2months that doctor cannot explain, ... mentioned that he did not know it was from NAC related activities.”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |
| 295 | December 2012  | Dust – general              | “Concerns regarding dust”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |

|     |                   |                             |   |  |
|-----|-------------------|-----------------------------|---|--|
| 296 | 14 January 2013   | Dust – property damage      | “Dust, he believes he has coal dust at his house”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |
| 297 | 2013              | Dust – general              | “Dust concerns”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |
| 298 | 2013              | Dust – general              | “Request that NAC undertake water and dust sampling at their residence”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |
| 299 | 2013              | Dust – general              | “Concerns regarding the release of potential coal dust emissions from rail wagons and the NAC Mine”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |
| 300 | 8 February 2013   | Dust – general              | “emailed complaining about the noise from New Acland Coal Mine”   | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> ) |
| 301 | 25 May 2013       | Dust – general              | “Concerns regarding release of potential coal dust emissions from the Jondaryan Rail Loading Facility”  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |
| 302 | 27 September 2013 | Dust - general              | “Glen Beutel rang to complain about this morning's blast from NAC mine. He said the plume of dust from the blast was blowing over his house resulting in Acland town being in the fume management zone” | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> ) |
| 303 | 4 November 2013   | Dust – general              | “Glen Beutel rang to complain about the dust from NAC mine's blast on Friday 1 November causing a nuisance at his residence in Acland. Further call from Glenn on 6/1/2013. NFA as being dealt with.”   | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> ) |
| 304 | 13 December 2013  | Dust – general              | “Concerns regarding the release of potential coal dust emissions from open cut mining and blasting activities”  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |
| 305 | 2 October 2013    | Dust – breathing and health | “her father became unwell around January/February this year with what appeared to be .... believes it   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |

|     |                |                |   |  |
|-----|----------------|----------------|---|--|
|     |                |                | <p>may be... and mentioned that she will be taking the... to an upcoming doctor... appointment in the next few weeks. She said her father was on ... and that her son and horses both suffer from ... she will send through a letter of intent to sue the company, as when her father passes, an autopsy will reveal the true cause of his ill health” ...</p> <p>“she has been living ... from the rail loading facility for ten years and experiences the worst dust un the town. She is worries about the health of her family and horses” ...</p> <p>“dust monitoring had shown higher reading of coal dust at her fathers house than at the mine itself” ...</p> <p>“she has sent her horses away and she now has time to concentrate on getting her family out of Jandaryan.”</p> <p>Same complaint made in email on 27 November 2013</p> |  |
| 306 | 17 March 2014  | Dust – general | “The complaint seems to relate to coal dust contaminating their water”  | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> ) |
| 307 | 11 August 2014 | Dust – general | “Environmental Nuisance Complaint Email received from - Secretary in relation to air and environmental pollution incidences at Jondarayan Rail Loading Facility. Supporting information, documents and photographs attached on integrated documents. Original documents being forwarded to Palm via mail.”  | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> ) |

|     |                   |                  |  |  |
|-----|-------------------|------------------|--|--|
| 308 | 14 August 2014    | Dust – general   | nuisance complaint form received from I Dr contact - form attached with air quality results  | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> ) |
| 309 | 10 July 2015      | Dust – general   | “Concerns regarding the release of coal dust emissions from the Jondaryan Rail Loading Facility”   | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |
| 310 | 10 July 2015      | Dust – general   | “Concerns regarding the release of coal dust emissions from NAC mine”  | Ex. 675 Complaints Register 2002-2016 ( <b>OCA.0035</b> )    |
| 311 | 23 December 2015  | Dust – general   | “a dust complaint from a blast from the Acland Coal Mine. At about 10.45am today, the mine carried out the blast and a large dust cloud covered the town. Mr Beutel also advised that he had a dry metallic taste in his mouth at this time”   | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> ) |
| 312 | 31 March 2016     | Air – monitoring | “New Acland Coal provided the monthly (February) air quality results posted in Jondaryan. The results showed the TSP TEOM only operated approximately 42% of the sample period. This was in non-compliance with condition A9 of their EA which requires that TSP be monitored continually with instrument availability to be not less than 80% in any 30 day period” | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> ) |
| 313 | 24 May 2016       | Dust – general   | Complaints Re Dust emissions by Glenn Beutel   | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> ) |
| 314 | 28 September 2016 | Air – odour      | Odour complaint re “transfer station for the coal trucks” ... “has advised that the smell is sometimes unbearable”   | 200302 Ecotrack Enquirer Extract for NAC ( <b>OCA.0250</b> ) |

|     |                  |                |   |  |
|-----|------------------|----------------|---|--|
| 315 | 12 December 2016 | Dust – general | “Acland Mine were conducting blasting operations at 10.38am today which caused a dust cloud to impact on the complaint. The wind direction was a Northerly direction”   | 200302 Ecotrack Enquirer Extract for NAC <b>(OCA.0250)</b>             |
| 316 | 1 April 2020     | Air – odour    | Complaint from Glenn Beutel – “Can smell blast gases from 3:07pm<br>A blast occurred on the 01/04/20 at 3pm and straight after the blast the reporter noticed an odour described as "blast gases" (like fireworks) Reporter went straight inside and closed all the windows (unsure the blast gases were in the area) to avoid breathing in the fumes. Scale: 6 out of 6 Wind: no wind Source: New Acland Mine” | 210902 Dynamics Compliance Hub Complaints – Redacted <b>(OCA.0249)</b> |
| 317 | 2 December 2020  | Dust – general | “He [Glenn Beutel] could see out the back door a big cloud of dust. At 11.01am he noticed a smell of gun powder for a few seconds. The wind direction was slight, coming from the mine towards his home. The dust cloud continues now.”   | 210902 Dynamics Compliance Hub Complaints – Redacted <b>(OCA.0249)</b> |

# APPENDIX 4 - PROGRESSION OF WEST PIT FROM 2016

## Progression of West Pit from 2016

1. NAC commenced mining West Pit in 2016.

Exhibit 39, NAC.0205 is a satellite image produced by NAC in the 2016 hearing showing the location of West Pit in August 2016, which was 800m (closest point) to 1300m (farthest point):

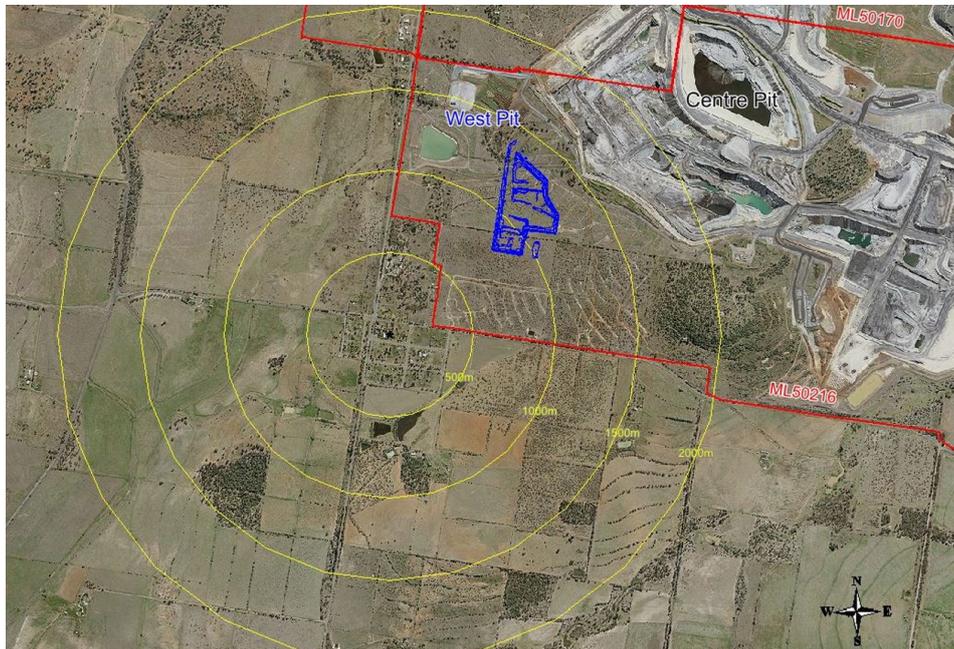
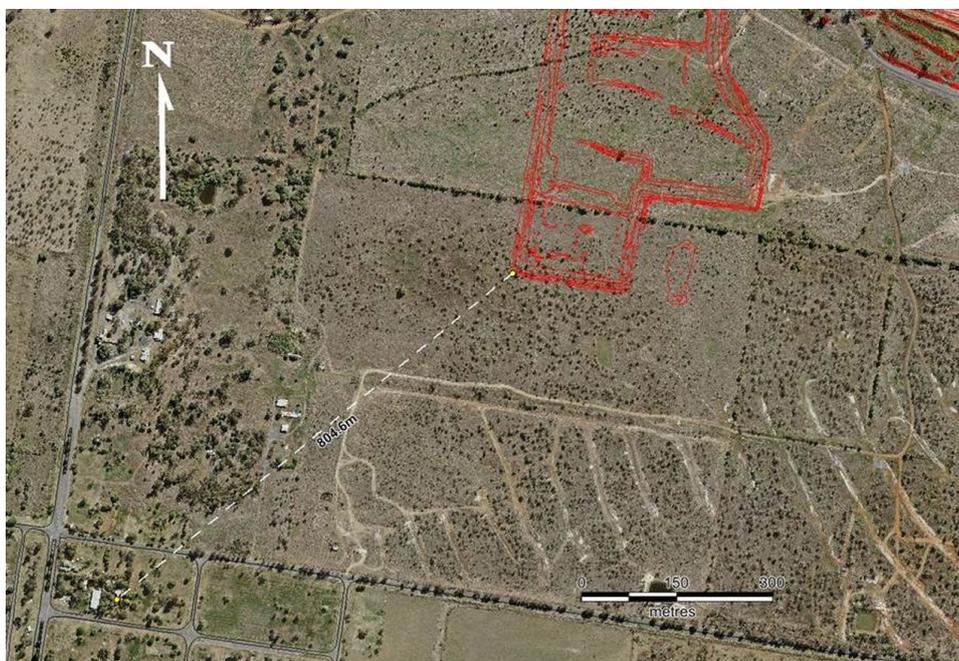


Exhibit 39, NAC.0205 is a similar satellite image showing the extent of West Pit in August 2016 showing the closest point at that time was 804.6m from Mr Beutel's property:



2. NAC's aerial images showing the progression of mining show the extent of West Pit as at 23/9/2016 in the following image (Exh 39, OCA.0206 (k)). No distance or scale is included in the image itself, but by comparing it to the satellite image above that shows distances from Mr Beutel's house, the closet point of West Pit was approximately 800m away at that time):



3. From 2016, West Pit was expanded west and south.
4. NAC's aerial images showing the progression of mining show the extent of West Pit as at 14/12/2017 in the following image (Exh 39, OCA.0206 (l)).  
No distance or scale is included in the image itself, but by comparing it to the satellite image above that shows distances from Mr Beutel's house, the closet point of West Pit was approximately 700m away at that time and the pit extended across a much larger area.



5. NAC's aerial images showing the progression of mining show the extent of West Pit as at 13/08/2018 in the following image (Exh 39, OCA.0206 (m)).

No distance or scale is included in the image itself, but by comparing it to the satellite image above, that shows distances from Mr Beutel's house, the closet point of West Pit was approximately 300m away.



6. Photographs on 24 September 2018 included in the series of photographs in Exhibit 39, OCA.0208, show the extent of West Pit at that time.

By comparing the extent of West Pit to the distances shown in the previous satellite image (NAC.0205), at this point the nearest point of West Pit was approximately 300m from Mr Beutel's house:



Photo OCAA-05: West Pit viewed from the south with location of residence of Glenn Beutel at Acland identified in red circle. Date of photo: 24/09/2018



Photo OCAA-06: West Pit viewed from the west with location of residence of Glenn Beutel at Acland identified in red circle. Date of photo: 24/09/2018

7. After 2018, NAC continued mining West Pit southwards to the southern boundary of the Stage 2 ML, along the Acland-Silverleigh Road.
8. The Compliance Assessment Report (Exh 39, OCA.0157), dated 15 April 2019, stated at soft page 3 that as at February 2019 Mr Beutel's residence was approximately 300m south of the current West Pit mining operations:

**General Complaint History – Mr Glenn Beutel:**

The Beutel residence is located at 19 Allen St Acland (Beutel residence), approximately 300m (as at February 2019) south of the current West Pit mining operations and approximately 3.5km from the mines Run of Mine (ROM)(Figure 1). Much of the town of Acland was purchased by the New Acland Coal Pty Ltd (New Acland Coal) mine in 2010 as the proposed stage 3 of mining operations was to extract coal right through the town. The scope of the stage 3 project has since been revised, and an EA was issued on 12 March 2019, which will take effect to authorise the Stage 3 activities once the relevant mining tenure has been granted.

9. By 14 April 2021 West Pit had progressed south and had reached the southern boundary of the Stage 2 mining lease, the Acland-Silverleigh Road, as shown in Exhibit 39, OCA.0208, photo OCAA-14.



Photo OCAA-14: View north across mine with southern boundary of mine along Acland-Silverleigh Road in foreground, West Pit in the mid-ground (left) and Centre Pit in the distance. Date of photo: 14/04/2021

# APPENDIX 5A - OCAA DRAFT EA (CLEAN)

Department of Environment and Science

## Permit<sup>1</sup>

*Environmental Protection Act 1994*

### Draft environmental authority - New Acland Coal Mine

*This draft environmental authority is issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994.*

**Permit<sup>1</sup> number: EPML00335713**

**Environmental authority takes effect: DRAFT**

Anniversary Day: **27 May**

**Environmental authority holder(s)**

| Name                    | Registered address                         |
|-------------------------|--|
| New Acland Coal Pty Ltd | 3/22 Magnolia Drive<br>BROOKWATER QLD 4300 |

### Environmentally relevant activity and location details

| Environmentally relevant activity(ies)   | Location(s)                    |
|--|--------------------------------|
| Schedule 3 13: Mining Black Coal.  | ML50170                        |
| Ancillary 8 – Chemical Storage 3: storing more than 500m <sup>3</sup> of chemicals of class C1 or C2 combustible liquids under AS 1940 or dangerous goods class 3 under subsection (1)(c).                 | ML50216<br>ML700002<br>ML50232 |
| Ancillary 31 – Mineral Processing, 2: Processing, in a year, the following quantities of mineral products other than coke, (b) more than 100,000t.   |                                |
| Ancillary 60 - Waste disposal, 1: operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1)(a) less than 50,000t.                                      |                                |
| Ancillary 63 – Sewage Treatment, 1.operating sewage treatment works, other than no-release works, with a total daily peak design capacity of— (b) more than 100 but not more than 1,500EP— (ii) otherwise. |                                |

<sup>1</sup> Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation

## Additional information for applicants

### Environmentally relevant activities

The description of any environmentally relevant activity (ERA) for which an environmental authority is issued is a restatement of the ERA as defined by legislation at the time the approval is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an environmental authority as to the scale, intensity or manner of carrying out an ERA, then the conditions prevail to the extent of the inconsistency.

An environmental authority authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the authority specifically authorises environmental harm.

A person carrying out an ERA must also be a registered suitable operator under the *Environmental Protection Act 1994* (EP Act).

### Contaminated land

It is a requirement of the EP Act that if an owner or occupier of land becomes aware a notifiable activity (as defined in Schedule 3 and Schedule 4) is being carried out on the land, or that the land has been, or is being, contaminated by a hazardous contaminant, the owner or occupier must, within 22 business days after becoming so aware, give written notice to the chief executive.

Signature

Date

Juliana McCosker  
Department of Environment and Science  
Delegate of the administering authority  
*Environmental Protection Act 1994*

**Enquiries:**  
Business Centre (Coal)  
Department of Environment and Science

PO Box 3028  
EMERALD QLD 4720  
Phone: (07) 4987 9320  
Email: CRMining@ehp.qld.gov.au

## Obligations under the *Environmental Protection Act 1994*

In addition to the requirements found in the conditions of this environmental authority, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the EP Act:

- general environmental duty (section 319);
- duty to notify environmental harm (section 320-320G);
- offence of causing serious or material environmental harm (sections 437-439);
- offence of causing environmental nuisance (section 440);
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG); and
- offence to place contaminant where environmental harm or nuisance may be caused (section 443).

Location:                    New Acland Coal Mine  
                                  Muldu Road, ACLAND QLD 4401

Schedules:                Agency interest A General  
                                  Agency interest B Air  
                                  Agency interest C Water  
                                  Agency interest D Groundwater  
                                  Agency interest E Waste  
                                  Agency interest F Noise  
                                  Agency interest G Sewage Treatment  
                                  Agency interest H Land and Rehabilitation  
                                  Agency interest I Biodiversity  
                                  Agency interest J Regulated Structures  
                                  Agency interest K Light  
                                  Agency interest L Community  
                                  Agency interest Figures

## Draft environmental authority EPML00335713 — New Acland Coal Mine

### Conditions of environmental authority

| Agency interest: General |  |
|--------------------------|--|
| Condition number         | Condition  |
| A1                       | This environmental authority authorises environmental harm referred to in the conditions. Where there is no condition or this environmental authority is silent on a matter, the lack of a condition or silence does not authorise environmental harm.   |
| A2                       | <p>In carrying out the mining activity authorised by this environmental authority, the holder of this environmental authority must comply with <b>Figure 1 (Revised Project Overview — Mine Area)</b>.</p> <p>The maximum area authorised to be disturbed on ML50232 is 1,575ha generally as shown on <b>Figure 1</b> which comprises:</p> <ul style="list-style-type: none"> <li>(a) pits, slope batters and out of pit dumps – 1,422ha;</li> <li>(b) the train loadout facility, the material handling facility, the Balloon Loop and the Haul road – 44ha;</li> <li>(c) surface infrastructure (being bores, roads for light vehicles, levees, culverts, hardstand areas, tracks, water storage dams, buildings and any other structures built for the purpose of mining activity) – 109ha.</li> </ul> <p>The maximum extraction area authorised by this environmental authority located on ML50216 is 21 ha, being the northern part of Willaroo Pit (area 14 shown in <b>Figure 1a New Acland Coal Mine Stage 3 Project – Overall Disturbance Footprint</b>).</p> <p>The maximum out of pit dump area authorised by this environmental authority located on ML50216 is 103 ha, being the out of pit dump located to the immediate north of Willaroo Pit (area 15 shown in <b>Figure 1a New Acland Coal Mine Stage 3 Project – Overall Disturbance Footprint</b>).</p> <p>No further extraction or out of pit dumping is authorised on ML50216 or ML50170 other than as specified in this condition.</p> <p>The boundaries of the open-cut pits mined and out- of pit dumps constructed after the environmental authority takes effect for the Stage 3 New Acland mine project must not exceed the limits of the Manning Vale West Pit (area 4), Manning Vale East Pit (area 1) and Willaroo Pit (areas 7 and 14), and associated out of pit dumps (areas 5, 8 and 15), shown in <b>Figure 1a New Acland Coal Mine Stage 3 Project – Overall Disturbance Footprint</b>.</p> <p>No underground mining is permitted.</p> |
| A2a                      | The environmental authority holder is approved to extract coal at a rate of up to 5.1 million tonnes per annum (Mtpa) of product coal in accordance with this environmental authority.   |
| A3                       | <p>All plans, reports, peer reviews and programs referred to, or collected under, a condition of this environmental authority must be published on the environmental authority holder's website within one month of completion and maintained for the life of the mine.</p> <p>From the commencement of the Stage 3 New Acland mine project, the Proponent shall make copies of the following publicly available on its website:</p>   |

## Draft environmental authority EPML00335713 — New Acland Coal Mine

|                          |   |
|--------------------------|---|
|                          | <ul style="list-style-type: none"> <li>• the environmental impact assessment;</li> <li>• all current statutory approvals for the Stage 3 New Acland mine project;</li> <li>• a complaints register, which has been de-identified, and is to be updated on a monthly basis.</li> </ul>   |
| <b>NEW Condition A3a</b> | Monthly reports required under <b>Condition 3</b> of the imposed conditions of the Coordinator-General must be completed within fourteen (14) days from the end of the reporting month.   |
| <b>A4</b>                | <p><b>Maintenance of measures, plant and equipment</b></p> <p>The holder of this environmental authority must:</p> <ol style="list-style-type: none"> <li>a) install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority;</li> <li>b) maintain such measures, plant and equipment in a proper and efficient condition;</li> <li>c) operate such measures, plant and equipment in a proper and efficient manner; and</li> <li>d) ensure all instruments and devices used for the measurement or monitoring of any parameter under any condition of this environmental authority are properly calibrated.</li> </ol> |
| <b>A5</b>                | <p><b>Monitoring</b></p> <p>Except where specified otherwise in another condition of this environmental authority, all monitoring data (including audio recordings from the real-time monitoring system), records or reports required by this environmental authority must be kept for the life of the mine.</p>  |
| <b>A6</b>                | Upon request from the administering authority, and in addition to any other requirements under these conditions, copies of all monitoring data, records and reports will be made available and provided to the administering authority's nominated office within 10 business days or an alternative timeframe agreed between the administering authority and the holder.  |
| <b>A7</b>                | Any management or monitoring plans, systems or programs required to be developed and implemented by a condition of this environmental authority should be reviewed for effectiveness in minimising the likelihood of environmental harm on an annual basis, and amended promptly if required, unless a particular review date and amendment program is specified in these conditions, the plan, system or program.  |
| <b>A10</b>               | <p><b>Risk management</b></p> <p>The holder of this environmental authority must develop and implement a risk management system for mining activities which mirrors the content requirement of the Standards Australia Risk Management Guidelines (AS/NZS ISO 31000:2018), or the latest edition of a Standards Australia for risk management, to the extent relevant to environmental management, prior to the commencement of mining activities.</p>  |
| <b>A11</b>               | <p><b>Third-party reporting</b></p> <p>The holder of this environmental authority must:</p> <ol style="list-style-type: none"> <li>a) within 1 year of the commencement of this environmental authority, obtain from an appropriately qualified independent person who has been approved by the administering authority, a report on compliance with the conditions of this environmental authority;</li> </ol>   |

## Draft environmental authority EPML00335713 — New Acland Coal Mine

|            |   |
|------------|---|
|            | <p>b) obtain further such reports at regular intervals, not exceeding 3 yearly intervals, from the completion of the report referred to above; and</p> <p>c) provide each report to the administering authority within 90 days of its completion.</p>   |
| <b>A12</b> | <p>Where a condition of this environmental authority requires compliance with a standard, policy or guideline and the standard is amended or changed subsequent to the issue of this environmental authority, the holder of this environmental authority must:</p> <p>a) comply with the amended or changed standard, policy or guideline within 2 years of the amendment or change being made, unless a different period is specified in the amended standard or relevant legislation, or where the amendment or change relates specifically to regulated structures referred to in <b>Agency interest: Regulated Structures</b>, the time specified in the relevant condition or where another period is specified in this consent; and</p> <p>b) until compliance with the amended or changed standard, policy or guideline is achieved, continue to remain in compliance with the corresponding provision that was current immediately prior to the relevant amendment or change.</p> |
| <b>A15</b> | <p><b>Storage and handling of flammable and combustible liquids</b></p> <p>Spillage of all chemicals and fuels must be contained within an on-site containment system and controlled in a manner that prevents environmental harm (other than trivial harm) and maintained in accordance with Section 5.9 of AS1940 – Storage and Handling of Flammable and Combustible Liquids of 2004 (or more recent editions).</p>  |

| <b>Agency interest: Air</b> |  |
|-----------------------------|--|
| <b>Condition number</b>     | <b>Condition</b>   |
| <b>Ba</b>                   | <p>The holder of this environmental authority must ensure that dust and particulate matter emissions generated by the mining activities do not cause or contribute to exceedances of each of the air quality limits and nuisance limits in <b>Table B1- Air Quality Limits and Monitoring requirements</b> at a sensitive place or commercial place.</p> <p>Note: the measurement of air emissions for a sensitive place or commercial place is either:</p> <p>a) at that place (if measured there); or</p> <p>b) at the monitoring location most representative (whether by reason of correlation or otherwise) of the sensitive or commercial place (where there is no measure at the sensitive or commercial place).</p> <p>The air quality limits for PM<sub>10</sub> and PM<sub>2.5</sub> in <b>Table B1</b> must be reviewed on 1 July each year and updated in accordance with any changes to the <i>Environment Protection (Air) Policy 2019</i> (including any replacement policy as it exists from time to time), with changes to take effect from 1 January the following year.</p> <p>For all other air quality indicators listed in <b>Table B1</b>, for the purposes of condition A12, a change in air quality objectives contained in the <i>Environment Protection (Air) Policy 2019</i> is taken to be a change in a policy or guideline or standard.</p> |
| <b>B1</b>                   | <p>Prior to the commencement of the Stage 3 New Acland mine project, all air quality indicators listed in <b>Table B1</b>, must be monitored at the locations and at the frequency listed in <b>Table B1</b> in accordance with the following methodologies:</p>   |

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|           |   |
|-----------|---|
|           | <p>a) For Insoluble solids: the most recent version of Standards Australia AS/NZS 3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulate matter – Deposited matter – Gravimetric method;</p> <p>b) For PM<sub>10</sub>: the most recent version of either:</p> <ol style="list-style-type: none"> <li>(1) Standards Australia AS/NZS 3580.9.6 Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – PM<sub>10</sub> high volume sampler with size-selective inlet – Gravimetric method; or</li> <li>(2) Standards Australia AS/NZS 3580.9.9 Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – PM<sub>10</sub> low volume sampler – Gravimetric method; or</li> <li>(3) Standards Australia AS 3580.9.8 Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – PM<sub>10</sub> continuous direct mass method using a tapered element oscillating microbalance analyser;</li> </ol> <p>c) For TSP: the most recent version of AS/NZS 3580.9.3:2003 Methods for sampling and analysis of ambient air- Determination of suspended particulate matter – Total suspended particulate matter (TSP) – High volume sampler gravimetric method.</p> <p>d) For PM<sub>2.5</sub>:the most recent version of:</p> <ol style="list-style-type: none"> <li>(1) Standards Australia AS/NZS 3580.9.12 Methods for sampling and analysis of ambient air, Determination of suspended particulate matter – PM<sub>2.5</sub> beta attenuation monitors; or</li> <li>(2) Standards Australia AS/NZS 3580.9.13 Methods of sampling and analysis of ambient air, Determination of suspended particulate matter – PM<sub>2.5</sub> continuous direct mass method using a tapered element oscillating microbalance monitor.</li> </ol> |
| <b>B2</b> | <p>If monitoring indicates the potential for exceedance of the relevant limits in <b>Condition Ba</b> then the environmental authority holder must immediately implement dust abatement measures, including modifying or suspending operations, to avoid exceeding the relevant limits.</p>   |
| <b>B3</b> | <p><b>Air emissions management</b></p> <p>An Air Emissions Management Plan must be developed by a suitably qualified and experienced person in relation to air emissions and implemented for all stages of mining. The Air Emissions Management Plan must be submitted to the administering authority for review and comment <b>within 3 months of the grant of ML50232 and ML700002</b>, and at intervals <b>not exceeding two (2) years thereafter</b>.</p>   |
| <b>B4</b> | <p><b>Air emissions management</b></p> <p>The Air Emissions Management Plan must incorporate a program for continuous improvements for the management of dust resulting from mining operations with respect to, but not limited to:</p> <ol style="list-style-type: none"> <li>a) monitoring locations acting as and continuing to act as representative sites for sensitive places (if there is no monitor at a particular sensitive place);</li> <li>b) if there is no monitor at a sensitive place, a protocol for correlating the measured levels at the monitoring site with the likely levels at the sensitive place, including a detailed description of how an exceedance at a sensitive</li> </ol>   |

## Draft environmental authority EPML00335713 — New Acland Coal Mine

|                       | <p>place is to be identified from the measurement taken at the monitoring station;</p> <p>c) The collection and monitoring of air quality and meteorological data in accordance with <b>Table B1: Air quality limits and monitoring requirements</b>;</p> <p>d) PM<sub>10</sub> and TSP trend monitoring<sup>1</sup>, to investigate complaints and to check the correlation of the real time monitors with sensitive receptor locations;</p> <p>e) A trigger action response plan that requires the environmental authority holder to:</p> <ul style="list-style-type: none"> <li>• avoid exceedances of each of the air quality limits and nuisance limits specified in <b>Table B1</b> at a sensitive place or commercial place caused or contributed to by mining activities; and</li> <li>• investigate, mitigate and manage dust and particulate matter emissions generated by the mining activities so that the limits in <b>Table B1</b> are met; and</li> <li>• investigate, mitigate and manage the following air quality indicators when monitoring indicates exceedance of the following air quality triggers caused or contributed to by mining activities at any sensitive place or commercial place:</li> </ul> <table border="1"> <thead> <tr> <th>Air Quality Indicator</th> <th>Air Quality Trigger</th> <th>Frequency</th> </tr> </thead> <tbody> <tr> <td>PM<sub>10</sub></td> <td>120 µg/m<sup>3</sup></td> <td>1 hour</td> </tr> <tr> <td>PM<sub>2.5</sub></td> <td>60 µg/m<sup>3</sup></td> <td>1 hour</td> </tr> <tr> <td>TSP</td> <td>250 µg/m<sup>3</sup></td> <td>1 hour</td> </tr> </tbody> </table> <p>f) A forecasting system that provides daily predictions of upcoming meteorological conditions in order to identify adverse meteorological conditions likely to produce elevated levels of dust including PM<sub>10</sub> and PM<sub>2.5</sub> at a sensitive place or commercial place due to the mining activities;</p> <p>g) The content of the monthly compliance reports required under <b>Condition 3</b> of the imposed conditions of the Coordinator-General, including:</p> <ul style="list-style-type: none"> <li>• the frequency and cause of any exceedances of each of the air quality limits and nuisance limits in <b>Table B1</b>;</li> <li>• the environmental authority holder's response to any exceedances and complaints;</li> <li>• the frequency of any exceedances of the air quality indicators in Condition B4 and the environmental authority holder's response to any exceedances.</li> </ul> <p>h) A protocol for an audit of data records to check for accuracy;</p> <p>i) Annual review of the Air Emissions Management Plan by an independent and suitably qualified and experienced person who has been approved by the administering authority including:</p> <ul style="list-style-type: none"> <li>• a review of the adequacy and effectiveness of the Air Emissions Management Plan in avoiding and minimising air emissions and dust at a sensitive place or commercial place,</li> </ul> | Air Quality Indicator | Air Quality Trigger | Frequency | PM <sub>10</sub> | 120 µg/m <sup>3</sup> | 1 hour | PM <sub>2.5</sub> | 60 µg/m <sup>3</sup> | 1 hour | TSP | 250 µg/m <sup>3</sup> | 1 hour |
|-----------------------|---|-----------------------|---------------------|-----------|------------------|-----------------------|--------|-------------------|----------------------|--------|-----|-----------------------|--------|
| Air Quality Indicator | Air Quality Trigger   | Frequency             |                     |           |                  |                       |        |                   |                      |        |     |                       |        |
| PM <sub>10</sub>      | 120 µg/m <sup>3</sup>   | 1 hour                |                     |           |                  |                       |        |                   |                      |        |     |                       |        |
| PM <sub>2.5</sub>     | 60 µg/m <sup>3</sup>  | 1 hour                |                     |           |                  |                       |        |                   |                      |        |     |                       |        |
| TSP                   | 250 µg/m <sup>3</sup>   | 1 hour                |                     |           |                  |                       |        |                   |                      |        |     |                       |        |

## Draft environmental authority EPML00335713 — New Acland Coal Mine

|                          |  |
|--------------------------|--|
|                          | <ul style="list-style-type: none"> <li>• a review of any complaints received in the preceding year and the response of the environmental authority holder to those complaints, and</li> <li>• a process by which input from sensitive receptors is obtained, responded to and reported on as part of the review.</li> </ul> <p>j) A protocol and register for the recording of requests and installation of first flush diverter systems as required by <b>Condition B8</b>;</p> <p>k) A protocol for the transport of basalt material; and</p> <p>l) A protocol for keeping of records of mining operations on an hourly basis including operational machinery, material type and quantity handled, location, routes driven, mitigation employed and other relevant detail to enable prompt and efficient investigation of adverse events.</p> <p><sup>1</sup> <i>Trend monitoring can be undertaken using different instruments and methods from those specified in <b>Table B1: Air quality monitoring requirements</b>.</i></p>  |
| <b>New condition B4a</b> | Information recorded by the real time air emissions monitoring program, including records of mining operations on an hourly basis, must be made available for investigation by the administering authority upon request.   |
| <b>B5</b>                | <p>Within <b>twenty (20) business days</b> of receiving comments from the administering authority as required by <b>Condition B3</b>, the Air Emissions Management Plan must be updated by a suitably qualified and experienced person in relation to air emissions having regard to the comments, and submitted to the administering authority for approval.</p> <p>The administering authority must approve the initial Air Emissions Management Plan prior to the commencement of the Stage 3 New Acland mine project.</p>  |
| <b>B6</b>                | <p>The air quality monitoring locations listed in <b>Table B1: Air quality limits and monitoring requirements</b> must be reviewed by an independent third party who is a suitably qualified and experienced person(s) in relation to air emissions and who has been approved by the administering authority and a report must be provided to the administering authority within <b>two (2) years upon the grant of ML50232 and ML700002</b>, and at intervals not exceeding <b>two (2) years</b> thereafter. The review must include:</p> <ul style="list-style-type: none"> <li>a) The effectiveness of the monitoring network including the appropriateness of the monitoring locations to act as suitable representative sites for sensitive places (if there is no monitor at a particular sensitive place) as determined by modelling and monitoring;</li> <li>b) Dust complaints;</li> <li>c) Future progression of the mining activities;</li> <li>d) Locations of sensitive receptors relative to the existing and proposed mining activities;</li> <li>e) Mining operating modes; and</li> <li>f) A process for seeking feedback from sensitive receptors on their experiences of any air quality impacts arising from the mining activities.</li> </ul> |
| <b>New condition</b>     | If the review required by <b>Condition B6</b> recommends a change to the air quality monitoring locations in <b>Table B1</b> , and that change is approved by the  |

## Draft environmental authority EPML00335713 — New Acland Coal Mine

|            |   |
|------------|---|
| <b>B6a</b> | administering authority, then the change must be implemented within 2 months of that approval. <del>the case of an approval following a revised Air Emissions Management Plan pursuant to <b>Conditions B3 b)</b> or <b>B6 b)</b>, prior to the</del> environmental authority holder producing more than 5.1 million tonnes (Mt) of product coal per calendar year.   |
| <b>B7</b>  | <p>All continuously monitored parameters required by <b>Table B1: Air quality limits and monitoring requirements</b> and the forecasting system required by <b>Condition B4</b> must be made publicly available online and in real-time for the life of the mine, presented:</p> <ol style="list-style-type: none"> <li>a) spatially; and</li> <li>b) in a way that shows whether the limits in <b>Table B1: Air quality limits and monitoring requirements</b> have been exceeded. Within 5 business days of any such exceedance the environmental authority holder must place online a report outlining whether the exceedance is attributable to the mine.</li> </ol> <p>The following components must be included on the public website:</p> <ol style="list-style-type: none"> <li>a) Map of <b>Table B1</b> air quality monitoring locations;</li> <li>b) Real-time data from each monitoring location as follows: <ul style="list-style-type: none"> <li>• real-time rolling one hour average across all sites</li> <li>• real-time short term (5-6min) monitoring data on rolling 3 hour basis;</li> <li>• real-time rolling one hour average data on 24 hour basis;</li> <li>• links to historical data on one hour basis; and</li> <li>• links to historical 24 hour data.</li> </ul> </li> <li>c) Timeseries graph for each monitoring location showing the most recent monthly dust deposition rate;</li> <li>d) Summary of meteorological conditions at the Acland site weather station, including: <ul style="list-style-type: none"> <li>• Wind speed;</li> <li>• Wind direction;</li> <li>• Frequency of winds in the past 24 hours in the form of a wind rose;</li> <li>• Most recently available site relevant weather forecast;</li> <li>• Estimate of the contribution of different wind directions to the ambient concentration in the form of a dust rose at each monitoring site;</li> </ul> </li> <li>e) Historical download page to allow user to download monthly reports containing validated measurements of dust and meteorological conditions recorded by the monitoring system assessed against the air quality limits contained within <b>Table B1</b>. Valid dust measurements will be reported as 24-hour averages.</li> <li>f) Downloadable, unverified dust data for the monitoring locations for the period from the end of the most recent monthly report to the latest available dust information.</li> <li>g) Information page (or fact sheets) that includes instructions on how to read a wind rose, how to read a dust rose, definitions of TSP, PM10 and PM2.5 and other dust metrics.</li> </ol> |

## Draft environmental authority EPML00335713 — New Acland Coal Mine

Table B1: Air quality limits and monitoring requirements

| Monitoring location* | Air quality indicator                                | Instrument                     | Frequency           | Air quality limit   | Nuisance limit                        | Monitoring method                                    |
|----------------------|--|--------------------------------|---------------------|---|---------------------------------------|--|
| 1,2 (Acland)         | PM <sub>2.5</sub>                                    | BAM or TEOM                    | Continuous          | 25µg/m <sup>3</sup><br>(24 hr avg)<br><br>8µg/m <sup>3</sup><br>(annual)  |                                       | AS/NZS<br>3580.9.12:2013<br>AS/NZS<br>3580.9.13:2013 |
|                      | PM <sub>10</sub>                                     | TEOM                           | Continuous          | 50µg/m <sup>3</sup><br>(24 hr avg)<br><br>25µg/m <sup>3</sup><br>(annual) |                                       | AS 3580.9.8-<br>2008                                 |
|                      | TSP  | Hi-Vol<br>Sampler <sup>^</sup> | 24hr,<br>1 day in 6 | 90µg/m <sup>3</sup><br>(annual)   | 80µg/m <sup>3</sup><br>(24 hr<br>avg) | AS/NZS<br>3580.9.3:2003                              |
|                      | TSP# <sup>^</sup>                                    | Modified<br>TEOM# <sup>^</sup> | Continuous          | 90µg/m <sup>3</sup><br>(annual)   | 80µg/m <sup>3</sup><br>(24 hr<br>avg) | Modified TEOM  |
|                      | Insoluble solids                                     | Dust<br>gauge                  | Monthly             | 120mg/m <sup>2</sup> /<br>day   | 120mg/m <sup>2</sup><br>/day          | AS/NZS<br>3850.10.1:2003                             |
|                      | Wind<br>speed and<br>direction at<br>10m             |                                | Continuous          |   |                                       | AS 3580:14-<br>2011                                  |
|                      | Temperature<br>2m and 10m<br>Temperature<br>gradient |                                | Continuous          |   |                                       | AS 3580:14-<br>2014                                  |
|                      | Precipitation  |                                | Continuous          |   |                                       | AS 3580:14-<br>2014                                  |
|                      | Relative<br>Humidity                                 |                                | Continuous          |   |                                       | AS 3580:14-<br>2014                                  |
|                      | Solar Radiation                                      |                                | Continuous          |   |                                       | AS 3580:14-<br>2014                                  |
|                      | Net Radiation  |                                | Continuous          |   |                                       | AS 3580:14-<br>2014                                  |

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| Monitoring location*  | Air quality indicator                          | Instrument                  | Frequency           | Air quality limit   | Nuisance limit                     | Monitoring method                                    |
|---|--|-----------------------------|---------------------|---|------------------------------------|--|
|   | Evaporation                                    |                             |                     |   |                                    | Measured or calculated                               |
| 7, 8 (or an alternative location to the north of the Stage 3 New Acland mine identified in the Air Emissions Management Plan developed pursuant to condition B3). | PM <sub>10</sub>                               | TEOM                        | Continuous          | 50µg/m <sup>3</sup><br>(24 hr avg)<br>25µg/m <sup>3</sup><br>(annual) |                                    | AS/NZS<br>3580.9.8-2008                              |
|   | TSP  | Hi-Vol Sampler <sup>^</sup> | 24hr,<br>1 day in 6 | 90µg/m <sup>3</sup><br>(annual)                                       | 80µg/m <sup>3</sup><br>(24 hr avg) | AS/NZS<br>3580.9.3:2003                              |
|   | Insoluble solids                               | Dust gauge                  | Monthly             | 120mg/m <sup>3</sup> /<br>day   | 120mg/m <sup>2</sup> /<br>day      | AS/NZS<br>3580.10.1:2003                             |
| 16 (East)   | PM <sub>2.5</sub>                              | TEOM or BAM                 | Continuous          | 25µg/m <sup>3</sup> (2<br>4 hr avg)<br>8µg/m <sup>3</sup><br>(annual) |                                    | AS/ANZ<br>3580.9.12-2013<br>AS/ANZ3580.9.<br>13:2013 |
|   | PM <sub>10</sub>                               | TEOM                        | Continuous          | 50µg/m <sup>3</sup><br>(24 hr avg)<br>25µg/m <sup>3</sup><br>(annual) |                                    | AS 3580.9.8-<br>2008                                 |
|   | TSP  | Hi-Vol Sampler <sup>^</sup> | 24hr,<br>1 day in 6 | 90µg/m <sup>3</sup><br>(annual)                                       | 80µg/m <sup>3</sup><br>(24 hr avg) | AS/NZS<br>3580.9.3:2003                              |
|   | TSP# <sup>^</sup>                              | Modified TEOM# <sup>^</sup> | Continuous          | 90µg/m <sup>3</sup><br>(annual)                                       | 80µg/m <sup>3</sup><br>(24 hr avg) | Modified TEOM  |
|   | Insoluble solids                               | Dust gauge                  | Monthly             | 120mg/m <sup>2</sup> /<br>day   | 120mg/m <sup>2</sup> /<br>day      | AS/NZS<br>3850.10.1:2003                             |
|   | Wind speed and direction at 10m                |                             | Continuous          |   |                                    | AS 3580:14-<br>2011                                  |
|   | Temperature 2m and 10m<br>Temperature gradient |                             | Continuous          |   |                                    | AS 3580:14-<br>2014                                  |
|   | Precipitation                                  |                             | Continuous          |   |                                    | AS 3580:14-<br>2014                                  |

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| Monitoring location*  | Air quality indicator                          | Instrument                  | Frequency           | Air quality limit   | Nuisance limit                     | Monitoring method                              |
|---|--|-----------------------------|---------------------|---|------------------------------------|--|
|   | Relative Humidity                              |                             | Continuous          |   |                                    | AS 3580:14-2014                                |
| 38, 39 (or an alternative location to the north-west of the Stage 3 New Acland mine identified in the Air Emissions Management Plan<br><br>Developed pursuant to Condition B3). | PM <sub>10</sub>                               | TEOM                        | Continuous          | 50µg/m <sup>3</sup><br>(24 hr avg)<br><br>25µg/m <sup>3</sup><br>(annual) |                                    | AS/NZS 3580.9.8-2008                           |
|   | PM <sub>2.5</sub>                              | BAM or TEOM                 | Continuous          | 25µg/m <sup>3</sup><br>(24 hr avg)<br><br>8µg/m <sup>3</sup><br>(annual)  |                                    | AS/NZS 3580.9.12-2013<br>AS/NZS 3580.9.13-2013 |
|   | TSP  | Hi-Vol Sampler <sup>^</sup> | 24hr,<br>1 day in 6 | 90µg/m <sup>3</sup><br>(annual)   | 80µg/m <sup>3</sup><br>(24 hr avg) | AS/NZS 3580.9.3:2003                           |
|   | TSP <sup>#^</sup>                              | Modified TEOM <sup>#^</sup> | Continuous          | 90µg/m <sup>3</sup><br>(annual)   | 80µg/m <sup>3</sup><br>(24 hr avg) | Modified TEOM                                  |
|   | Insoluble solids                               | Dust gauge                  | Monthly             | 120mg/m <sup>2</sup> /<br>day   | 120mg/m <sup>2</sup> /<br>day      | AS/NZS 3850.10.1:2003                          |
|   | Wind speed and direction at 10m                |                             | Continuous          |   |                                    | AS 3580:14-2011                                |
|   | Temperature 2m and 10m<br>Temperature gradient |                             | Continuous          |   |                                    | AS 3580:14-2014                                |
|   | Precipitation                                  |                             | Continuous          |   |                                    | AS 3580:14-2014                                |
|   | Relative Humidity                              |                             | Continuous          |   |                                    | AS 3580:14-2014                                |
| 15 (East)   | PM <sub>10</sub>                               | TEOM                        | Continuous          | 50µg/m <sup>3</sup><br>(24 hr avg)<br><br>25µg/m <sup>3</sup><br>(annual) |                                    | AS 3580.9.8-2008                               |

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| Monitoring location*   | Air quality indicator | Instrument                  | Frequency           | Air quality limit   | Nuisance limit                     | Monitoring method        |
|--|-----------------------|-----------------------------|---------------------|---|------------------------------------|--------------------------|
|  | TSP                   | Hi-Vol Sampler <sup>^</sup> | 24hr,<br>1 day in 6 | 90µg/m <sup>3</sup><br>(annual)   | 80µg/m <sup>3</sup><br>(24 hr avg) | AS/NZS<br>3580.9.3:2003  |
|  | Insoluble solids      | Dust gauge                  | Monthly             | 120mg/m <sup>2</sup> /<br>day   | 120mg/m <sup>2</sup><br>/day       | AS/NZS<br>3850.10.1:2003 |
| 35,36 (west of mine site)<br>Lat –<br>-27.3019286<br>Long –<br>151.6437771 | PM <sub>10</sub>      | TEOM                        | Continuous          | 50µg/m <sup>3</sup><br>(24 hr avg)<br><br>25µg/m <sup>3</sup><br>(annual) |                                    | AS/NZS<br>3580.9.8-2008  |
|  | TSP                   | Hi-Vol Sampler <sup>^</sup> | 24hr,<br>1 day in 6 | 90µg/m <sup>3</sup><br>(annual)   | 80µg/m <sup>3</sup><br>(24 hr avg) | AS/NZS<br>3580.9.3:2003  |
|  | Insoluble solids      | Dust gauge                  | Monthly             | 120mg/m <sup>2</sup> /<br>day   | 120mg/m <sup>2</sup><br>/day       | AS/NZS<br>3850.10.1:2003 |
| 37 (West)  | PM <sub>10</sub>      | TEOM                        | Continuous          | 50µg/m <sup>3</sup><br>(24 hr avg)<br><br>25µg/m <sup>3</sup><br>(annual) |                                    | AS/NZS<br>3580.9.8-2008  |
|  | TSP                   | Hi-Vol Sampler <sup>^</sup> | 24hr,<br>1 day in 6 | 90µg/m <sup>3</sup><br>(annual)   | 80µg/m <sup>3</sup><br>(24 hr avg) | AS/NZS<br>3580.9.3:2003  |
|  | Insoluble solids      | Dust gauge                  | Monthly             | 120mg/m <sup>2</sup> /<br>day   | 120mg/m <sup>2</sup><br>/day       | AS/NZS<br>3850.10.1:2003 |
| 44 (Northwest)   | PM <sub>10</sub>      | TEOM                        | Continuous          | 50µg/m <sup>3</sup><br>(24 hr avg)<br><br>25µg/m <sup>3</sup><br>(annual) |                                    | AS/NZS<br>3580.9.8-2008  |
|  | TSP                   | Hi-Vol Sampler <sup>^</sup> | 24hr,<br>1 day in 6 | 90µg/m <sup>3</sup><br>(annual)   | 80µg/m <sup>3</sup><br>(24 hr avg) | AS/NZS<br>3580.9.3:2003  |
|  | Insoluble solids      | Dust gauge                  | Monthly             | 120mg/m <sup>2</sup> /<br>day   | 120mg/m <sup>2</sup><br>/day       | AS/NZS<br>3850.10.1:2003 |

\*See Figure # [Note: this will be a combination of Figures 5 – Location of sensitive receptors and Figure 6 - Air quality monitoring locations for the revised project (Stage 3) # Data from the modified TEOM and Hi-Vol samplers to be used to calibrate the modified TEOM for monitoring TSP.

Calibration needs to be undertaken over at least a 6 month period from June to December. Once the modified TEOM has been calibrated it can be used to measure TSP instead of the Hi-Vol sampler.

<sup>^</sup> The modified TEOM can be used to measure TSP at other sites.

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| <b>B8</b>                | The environmental authority holder must provide and install “first flush” diverter systems within <b>three (3) months</b> of a request for such a system being made from a residence within 5 km of the mine boundary.  |                  |                        |                  |        |                  |          |          |                        |            |           |           |                 |          |        |           |          |          |                 |    |       |        |           |
|--------------------------|---|------------------|------------------------|------------------|--------|------------------|----------|----------|------------------------|------------|-----------|-----------|-----------------|----------|--------|-----------|----------|----------|-----------------|----|-------|--------|-----------|
| <b>B9</b>                | <p><b>Odour Nuisance</b></p> <p>The release of noxious or offensive odour(s) or any other noxious or offensive airborne contaminant(s) resulting from the mining activity must not cause or contribute to an environmental nuisance at any sensitive place or commercial place.</p>   |                  |                        |                  |        |                  |          |          |                        |            |           |           |                 |          |        |           |          |          |                 |    |       |        |           |
| <b>B10</b>               | When requested by the administering authority, odour monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint of environmental nuisance at any sensitive place or commercial place, and the results must be notified within <b>fourteen (14) days</b> to the administering authority and the complainant following completion of monitoring.   |                  |                        |                  |        |                  |          |          |                        |            |           |           |                 |          |        |           |          |          |                 |    |       |        |           |
| <b>B11</b>               | <p>If monitoring indicates condition <b>B9</b> is not being met then the environmental authority holder must:</p> <p>a) address the complaint including the use of appropriate dispute resolution if required; and</p> <p>b) immediately implement odour abatement measures so that emissions of odour from the activity do not result in further environmental nuisance.</p>   |                  |                        |                  |        |                  |          |          |                        |            |           |           |                 |          |        |           |          |          |                 |    |       |        |           |
| <b>New condition B12</b> | <p>For any blast within 1.5km of a sensitive receptor, a monitoring program must be designed and implemented by a suitably qualified and experienced person in relation to air emissions to determine whether air quality complies with the following standards at the sensitive receptor:</p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Air Quality Objective</th> <th>Averaging Period</th> <th>Source</th> </tr> </thead> <tbody> <tr> <td rowspan="2">H<sub>2</sub>S</td> <td>0.11 ppm</td> <td>24 hours</td> <td>EPP (Air)<sup>1</sup></td> </tr> <tr> <td>0.0049 ppm</td> <td>30 minute</td> <td>EPP (Air)</td> </tr> <tr> <td rowspan="2">SO<sub>2</sub></td> <td>0.12 ppm</td> <td>1 hour</td> <td>EPP (Air)</td> </tr> <tr> <td>0.24 ppm</td> <td>3 minute</td> <td>Odour detection</td> </tr> <tr> <td>CO</td> <td>9 ppm</td> <td>8 hour</td> <td>EPP (Air)</td> </tr> </tbody> </table> <p>1 EPP (Air) refers to the <i>Environment Protection (Air) Policy 2019</i>. For the purposes of condition A12, a change in air quality objectives contained in the <i>Environment Protection (Air) Policy 2019</i> is taken to be a change in a policy or guideline or standard.</p> | Pollutant        | Air Quality Objective  | Averaging Period | Source | H <sub>2</sub> S | 0.11 ppm | 24 hours | EPP (Air) <sup>1</sup> | 0.0049 ppm | 30 minute | EPP (Air) | SO <sub>2</sub> | 0.12 ppm | 1 hour | EPP (Air) | 0.24 ppm | 3 minute | Odour detection | CO | 9 ppm | 8 hour | EPP (Air) |
| Pollutant                | Air Quality Objective   | Averaging Period | Source                 |                  |        |                  |          |          |                        |            |           |           |                 |          |        |           |          |          |                 |    |       |        |           |
| H <sub>2</sub> S         | 0.11 ppm  | 24 hours         | EPP (Air) <sup>1</sup> |                  |        |                  |          |          |                        |            |           |           |                 |          |        |           |          |          |                 |    |       |        |           |
|                          | 0.0049 ppm  | 30 minute        | EPP (Air)              |                  |        |                  |          |          |                        |            |           |           |                 |          |        |           |          |          |                 |    |       |        |           |
| SO <sub>2</sub>          | 0.12 ppm  | 1 hour           | EPP (Air)              |                  |        |                  |          |          |                        |            |           |           |                 |          |        |           |          |          |                 |    |       |        |           |
|                          | 0.24 ppm  | 3 minute         | Odour detection        |                  |        |                  |          |          |                        |            |           |           |                 |          |        |           |          |          |                 |    |       |        |           |
| CO                       | 9 ppm   | 8 hour           | EPP (Air)              |                  |        |                  |          |          |                        |            |           |           |                 |          |        |           |          |          |                 |    |       |        |           |
| <b>New condition B13</b> | <p>If monitoring indicates the standards in <b>Condition B12</b> are not being met then the environmental authority holder must:</p> <p>a) immediately implement odour abatement measures so that emissions of odour from the activity do not result in further environmental nuisance; and</p>   |                  |                        |                  |        |                  |          |          |                        |            |           |           |                 |          |        |           |          |          |                 |    |       |        |           |

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|                          |   |
|--------------------------|---|
|                          | b) within 24 hours of the blast, notify the administering authority and the sensitive receptor of any exceedance of the standards and the odour abatement measures implemented.   |
| <b>New condition B14</b> | If the Annual Review required by <b>Condition B4</b> demonstrates the environmental authority holder is failing to comply with the limits specified in <b>Table B1</b> , then the administering authority is able to request data and details on which the Annual Review was based and conduct or commission its own independent review by suitably qualified and experienced person approved by the administering authority. This review would be funded by the environmental authority holder. The reviewer may request additional data and information relating to the review through the administering authority as considered necessary. |

| Agency interest: Water |   |
|------------------------|---|
| Condition number       | Condition   |
| <b>C1</b>              | Contaminants that will, or have the potential to, cause environmental harm must not be released directly or indirectly to any waters as a result of the authorised mining activities, except as permitted under the conditions of this environmental authority.   |
| <b>C2</b>              | Unless otherwise permitted under the conditions of this environmental authority, the release of mine affected water to waters must only occur from the release points specified in <b>Table C1: Mine affected water release points, sources and receiving waters</b> and depicted in <b>Figure 2: Mine affected water release points, sources and receiving waters monitoring locations</b> attached to this environmental authority. |

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Table C1: Mine-affected water release points, sources and receiving waters

| Release Point (RP) | Latitude (decimal degree, GDA94) | Longitude (decimal degree, GDA94) | Mine-affected water source and location | Monitoring Point  | Receiving waters description |
|--------------------|----------------------------------|-----------------------------------|---|-------------------|------------------------------|
| ED1                | 27° 15' 40.5603" S               | 151° 41' 48.32659" E              | ED1                                     | Overflow from ED1 | Spring Creek                 |
| ED2                | 27° 16' 54.96167" S              | 151° 41' 36.83113" E              | ED2                                     | Overflow from ED2 | Lagoon Creek                 |
| ED3                | 27° 18' 29.40913" S              | 151° 42' 50.52694" E              | ED3                                     | Overflow from ED3 | Lagoon Creek                 |
| ED4                | 27° 17' 41.49436" S              | 151° 41' 33.60156" E              | ED4                                     | Overflow from ED4 | Lagoon Creek                 |
| ED5                | TBA                              | TBA                               | ED5                                     | Overflow from ED5 | Lagoon Creek                 |
| ED6                | TBA                              | TBA                               | ED6                                     | Overflow from ED6 | Lagoon Creek                 |
| ED7                | TBA                              | TBA                               | ED7                                     | Overflow from ED7 | Lagoon Creek                 |

|           |   |
|-----------|---|
| <b>C3</b> | The release of mine affected water to waters in accordance with Condition <b>C2</b> must not exceed the release limits stated in <b>Table C2: Mine-affected water release limits</b> when measured at the monitoring points specified in <b>Table C1: Mine-affected water release points, sources and receiving waters</b> for each quality characteristic. |
|-----------|---|

Table C2: Mine-affected water release limits

| Quality characteristic          | Release limits   | Monitoring frequency  |
|---------------------------------|--|---|
| Electrical conductivity (µS/cm) | Release limits specified in <b>Table C3</b> for variable flow criteria | Real time telemetry for EC and pH. Daily grab samples if telemetry not available                      |
| pH (pH Unit)                    | 6.0 (minimum)<br>9.0 (maximum)   | If telemetry is unavailable, the first sample must be taken within 2 hours of commencement of release |
| Total suspended solids (mg/L)   | 100  | Daily during release (the first sample must be taken within 2 hours of commencement of release)       |

|           |   |
|-----------|---|
| <b>C4</b> | The release of mine affected water to waters from the release points must be monitored as per <b>Table C3: Mine-affected water release during flow events</b> at the locations specified in <b>Table C1: Mine-affected water release points, sources and receiving waters</b> for each quality characteristic and at the frequency specified in <b>Table C2: Mine-affected water release limits</b> . |
|-----------|---|

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|            |   |
|------------|---|
| <b>C5</b>  | <p><b>Mine-affected water release events</b></p> <p>The holder must ensure a stream flow gauging station(s) is installed, operated and maintained to determine and record stream flows in Lagoon and Spring Creek upstream of the discharge sites.</p>  |
| <b>C6</b>  | <p>Notwithstanding any other condition of this environmental authority, the release of mine affected water to waters in accordance with <b>Condition C2</b> must only take place during periods of natural flow in accordance with the receiving water flow criteria for discharge specified in <b>Table C2: Mine-affected water release limits</b> for the release point(s) specified in <b>Table C1: Mine-affected water release points, sources and receiving waters</b>.</p>  |
| <b>C7</b>  | <p>The release of mine affected water to waters in accordance with <b>Condition C6</b> must not exceed the Maximum Release Rate (for all combined release point flows) for each receiving water flow criterion for discharge specified in <b>Table C3: Mine-affected water release during flow events</b> when measured at the monitoring points specified in <b>Table C1: Mine-affected water release points, sources and receiving waters</b>.</p>  |
| <b>C8</b>  | <p>The daily quantity of mine affected water released from each release point must be measured and recorded.</p>  |
| <b>C9</b>  | <p>Release to waters must be undertaken so not as to cause erosion of the bed and banks of the receiving waters or cause material build-up of sediment in such waters.</p>  |
| <b>C10</b> | <p><b>Notification of release event</b></p> <p>The environmental authority holder must notify the administering authority as soon as practicable and <b>no later than 24 hours after commencing</b> to release mine affected water to the receiving environment. Notification must include the submission of written advice to the administering authority of the following information:</p> <ul style="list-style-type: none"> <li>a) release commencement date/time;</li> <li>b) details regarding the compliance of the release with the conditions of Agency Interest: Water of this environmental authority (that is, contaminant limits, natural flow, discharge volume);</li> <li>c) release point(s);</li> <li>d) release rate;</li> <li>e) release salinity; and</li> <li>f) receiving water(s) including the natural flow rate.</li> </ul> <p><b>NOTE:</b> Notification to the administering authority must be made via WaTERS.</p> |

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Table C3: Mine-affected water release during flow events

| Receiving waters/<br>stream | Release Point (RP) | Gauging Station<br>Latitude<br>(GDA94) | Gauging Station<br>Longitude<br>(GDA94) | Receiving Water Flow<br>Criteria for<br>discharge<br>(m3/s)   | Maximum<br>release rate<br>(for all<br>combined<br>RP flows) | Electrical<br>Conductivity<br>Release<br>Limits |               |                |
|-----------------------------|--------------------|--|---|---|--|---|---------------|----------------|
| Lagoon<br>Creek             | ED2                | 27° 16'                                | 151° 41'                                | Low Flow<br><br><46.3 L/sec for<br>a period of 28<br>days after<br>natural flow<br>events that<br>exceed 4 ML/d         | <17.4 L/sec  | 700   |               |                |
|                             |                    | 54.96167"<br>S                         | 36.83113"<br>E                          |   |  |   |               |                |
|                             | ED3                | 27° 18'                                | 151° 42'                                |   | Medium Flow<br>(low)<br>> 46.3 L/sec                         | < 17.4 L/sec                                    | 1500          |                |
|                             |                    | 29.40913"<br>S                         | 50.52694"<br>E                          |   |  |   |               |                |
|                             | ED4                | 27° 17'                                | 151° 41'                                |   | Medium Flow<br>(high)<br>> 133 L/sec                         | < 8 L/sec                                       | 2,500         |                |
|                             |                    | 41.49436"<br>S                         | 33.60156"<br>E                          |   |  |   |               |                |
|                             | ED5                | TBA                                    | TBA                                     |   | Medium Flow<br>(high)<br>> 133 L/sec                         | < 5.8 L/sec                                     | 3,500         |                |
|                             |                    | TBA                                    | TBA                                     |   |  |   |               |                |
|                             | ED6                | TBA                                    | TBA                                     |   | High Flow<br>>405 L/sec                                      | < 48.6 L/sec                                    | 1500          |                |
|                             |                    | TBA                                    | TBA                                     |   |  |   |               |                |
|                             | ED7                | TBA                                    | TBA                                     |   | High Flow<br>>405 L/sec                                      | < 23 L/sec                                      | 2,500         |                |
|                             |                    | TBA                                    | TBA                                     |   |  | < 15 L/sec                                      | 3,500         |                |
| Spring<br>Creek             | ED1                | 27° 15'                                | 151° 41'                                | Low Flow<br><br>< 46.3 L/sec for<br>a period of 28<br>days after<br>natural flow<br>events that<br>exceed 46.3<br>L/sec | < 17.4 L/sec   | 700   |               |                |
|                             |                    |  |   |   |  |   | 40.5603"<br>S | 48.32659"<br>E |
|                             |                    |  |   |   |  |   |               |                |

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|            |  |
|------------|--|
| <b>C11</b> | <p>The environmental authority holder must notify the administering authority as soon as practicable and nominally no later than 24 hours after cessation of a release event of the cessation of a release notified under <b>Condition C10</b> and within 28 days provide the following information in writing:</p> <ul style="list-style-type: none"> <li>a) release cessation date/ and time;</li> <li>b) natural flow rate in receiving water;</li> <li>c) volume of water released;</li> <li>d) details regarding the compliance of the release with the conditions of Agency Interest; Water of this environmental authority (i.e. contaminant limits, natural flow, discharge volume);</li> <li>e) all in-situ water quality monitoring results; and</li> <li>f) any other matters pertinent to the water release event.</li> </ul> <p>NOTE: Successive or intermittent releases occurring within 24 hours of the cessation of any individual release can be considered part of a single release event and do not require individual notification for the purpose of compliance with <b>Conditions C10</b> and <b>C11</b>, provided the relevant details of the release are included within the notification provided in accordance with <b>Conditions C10</b> and <b>C11</b>.</p> |
| <b>C12</b> | <p>If the release limits defined in <b>Table C2: Mine-affected water release limits</b> are exceeded, the holder of the environmental authority must notify the administering authority within 24 hours of receiving the results.</p>  |
| <b>C13</b> | <p>The environmental authority holder must, within 28 days of a release that is not compliant with the conditions of this environmental authority, provide a report to the administering authority detailing:</p> <ul style="list-style-type: none"> <li>a) the reason for the release;</li> <li>b) the location of the release;</li> <li>c) the total volume of the release and which (if any) part of this volume was non-compliant;</li> <li>d) the total duration of the release and which (if any) part of this period was non-compliant;</li> <li>e) all water quality monitoring results (including all laboratory analyses);</li> <li>f) identification of any environmental harm as a result of the non-compliance;</li> <li>g) all calculations; and</li> <li>h) any other matters pertinent to the water release event.</li> </ul>  |
| <b>C14</b> | <p><b>Receiving Environment Monitoring and Contaminant Trigger Levels</b></p> <p>The quality of the receiving waters must be monitored at the locations specified in <b>Table C5: Receiving water upstream background sites and downstream monitoring points</b> for each quality characteristic and at the monitoring frequency stated in <b>Table C4: Receiving waters contaminant trigger levels</b>.</p>   |

**Table C4: Receiving waters contaminant trigger levels**

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| Quality Characteristic          | Trigger Levels (µg/L)          | Comment on Trigger Level  | Mine Affected Water Monitoring Frequency                       |
|---------------------------------|--------------------------------|---|--|
| pH                              | 6.5 — 9.0                      |   | Daily during the release                                       |
| Electrical Conductivity (µS/cm) | <del>700</del> 510             | Oakey Creek WQO   |  |
| Total Suspended solids (mg/L)   | <del>To be determined</del> 65 | Turbidity may be required to assess ecosystems impacts and can provide instantaneous results. |  |
| Aluminium                       | 55                             | <i>For aquatic ecosystem protection, based on SMD guideline</i>                               | Commencement of release and thereafter weekly during release N |
| Arsenic                         | 13                             | <i>For aquatic ecosystem protection, based on SMD guideline</i>                               |  |
| Cadmium                         | 0.2                            | <i>For aquatic ecosystem protection, based on SMD guideline</i>                               |  |
| Chromium                        | 1                              | <i>For aquatic ecosystem protection, based on SMD guideline</i>                               |  |
| Copper                          | 2                              | <i>For aquatic ecosystem protection, based on LOR for ICPMS</i>                               |  |
| Iron                            | 300                            | <i>For aquatic ecosystem protection, based on low reliability guideline</i>                   |  |
| Lead                            | 4                              | <i>For aquatic ecosystem protection, based on SMD guideline</i>                               |  |
| Mercury                         | 0.2                            | <i>For aquatic ecosystem protection, based on LOR for CV FIMS</i>                             |  |
| Nickel                          | 11                             | <i>For aquatic ecosystem protection, based on SMD guideline</i>                               |  |
| Zinc                            | 8                              | For aquatic ecosystem protection, based on SMD guideline                                      |  |
| Boron                           | 370                            | For aquatic ecosystem protection, based on SMD guideline                                      |  |
| Cobalt                          | 90                             | For aquatic ecosystem protection, based on low reliability guideline                          |  |
| Manganese                       | 1900                           | For aquatic ecosystem protection, based on SMD guideline                                      |  |
| Molybdenum                      | 34                             | For aquatic ecosystem protection, based on low reliability guideline                          |  |
| Selenium                        | 10                             | For aquatic ecosystem protection, based on LOR for ICPMS                                      |  |
| Silver                          | 1                              | For aquatic ecosystem protection, based on LOR for ICPMS                                      |  |
| Uranium                         | 1                              | For aquatic ecosystem protection, based on LOR for ICPMS                                      |  |
| Vanadium                        | 10                             | For aquatic ecosystem protection, based on LOR for ICPMS                                      |  |

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| Quality Characteristic           | Trigger Levels (µg/L)                                  | Comment on Trigger Level   | Mine Affected Water Monitoring Frequency |
|----------------------------------|--|--|--|
| Ammonia                          | 900  | For aquatic ecosystem protection, based on SMD guideline   |  |
| Nitrate                          | 1100   | For aquatic ecosystem protection, based on ambient Queensland Water Quality Guidelines (2006) for TN |  |
| Petroleum hydrocarbons (C6-C9)   | 20   |  |  |
| Petroleum hydrocarbons (C10-C36) | 100  |  |  |
| Fluoride (total)                 | 2000   | Protection of livestock and short term irrigation guideline  |  |
| Sodium                           | TBA  |  |  |
| Sulphate (S042-) (mg/L)          | 250 (Protection of drinking water Environmental Value) | Drinking water environmental values from NHMRC 2006 guidelines OR ANZECC                             | Daily during release                     |

**Table C4: Receiving Waters contaminant trigger levels notes:**

1. All metals and metalloids must be measured as total (unfiltered) and dissolved (filtered). Trigger levels for metal/metalloids apply if dissolved results exceed trigger.
2. The quality characteristics required to be monitored as per **Table C4: Receiving Waters contaminant trigger levels** can be reviewed once the results of 2 years monitoring data is available, or if sufficient data is available to adequately demonstrate negligible environmental risk, and it may be determined that a reduced monitoring frequency is appropriate or that certain quality characteristics can be removed from **Table C4: Receiving Waters contaminant trigger levels** by amendment.
3. SMD - slightly moderately disturbed level of protection, guideline refers ANZECC & ARMCANZ (2000).
4. LOR - typical reporting for method stated. ICPMS/CV FIMS - analytical method required to achieve LOR.
5. Draft environmental values and water quality guidelines: Queensland Murray Darling Basin, Department of Science, Information Technology and Innovation, Queensland

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Table C5: Receiving water upstream background sites and downstream monitoring points

| Monitoring Points                            | Receiving Waters Location Description   | Latitude (GDA94)   | Longitude (GDA94)   |
|--|---|--------------------|---------------------|
| <b>Upstream Background Monitoring Points</b> |   |                    |                     |
| LCU1   | Lagoon Creek at a point upstream of mine  | 27° 18' 9.7728" S  | 151° 44' 23.136" E  |
| SSCU21                                       | Spring Creek at a point upstream of mine  | 27° 14' 18.7728" S | 151° 41' 31.2864" E |
| <b>Downstream Monitoring Points</b>          |   |                    |                     |
| LCD1   | Lagoon Creek downstream of mine   | 27° 18' 35.64" S   | 151° 43' 4.3536" E  |
| LCD2   | Lagoon Creek downstream of mine   | 27° 18' 37.36" S   | 151° 43' 1.8768" E  |
| SCD1   | Spring Creek at a point downstream of mine  | 27° 14' 47.364" S  | 151° 40' 36.2028" E |
| DS1  | Located at the downstream boundary of ML50232* (*or any subsequent identifier for the ML required for the New Acland Coal Mine Stage 3 project) | 27° 19' 26.68" S   | 151° 41' 7.02 E     |

|            |  |
|------------|--|
| <b>C15</b> | <p>If quality characteristics of the receiving water at the downstream monitoring points exceed any of the trigger levels specified in <b>Table C4: Receiving waters contaminant trigger levels</b> during a release event of mine affected water the environmental authority holder must compare the downstream results to the upstream results in the receiving waters and:</p> <p>a) where the downstream result is the same or a lower value than the upstream value for the quality characteristic then no additional monitoring and reporting action is required; or</p> <p>b) where the downstream results exceed the upstream results complete an investigation into the potential for environmental harm and provide a written report to the administering authority within 90 days of receiving the results and in the next annual return, outlining:</p> <ol style="list-style-type: none"> <li>1. details of the investigations carried out; and</li> <li>2. actions taken to prevent environmental harm.</li> </ol> <p>NOTE: Where an exceedance of a trigger level has occurred and is being investigated, in accordance with (b) of this condition, no further reporting is required for subsequent trigger events for that quality characteristic.</p> |
| <b>C16</b> | All determinations of water quality and biological monitoring must be performed by an appropriately qualified person.  |
| <b>C17</b> | <b>Annual water monitoring reporting</b>   |

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|------------|---|
|            | <p>The following information must be recorded in relation to all water monitoring required under the conditions of this environmental authority and submitted to the administering authority via WaTERS upon request in the specified format:</p> <ul style="list-style-type: none"> <li>a) the date on which the sample was taken;</li> <li>b) the time at which the sample was taken;</li> <li>c) the monitoring point at which the sample was taken;</li> <li>d) the measured or estimated daily quantity of mine affected water released from all release points;</li> <li>e) the release flow rate at the time of sampling for each release point;</li> <li>f) the results of all monitoring and details of any exceedances of the conditions of this environmental authority;</li> <li>g) water quality monitoring data must be provided to the administering authority in the specified electronic format <del>upon request</del>; and</li> <li>h) water level monitoring data must be provided in the specified electronic format <del>upon request</del>.</li> </ul> |
| <b>C18</b> | <p><b>Stormwater and water sediment controls</b></p> <p>An Erosion and Sediment Control Plan must be developed by an appropriately qualified person and implemented for all stages of the mining activities on the site to minimise erosion and the release of sediment to receiving waters and contamination of stormwater.</p>  |
| <b>C19</b> | <p>Stormwater, other than mine affected water, is permitted to be released to waters from:</p> <ul style="list-style-type: none"> <li>a) Erosion and sediment control structures that are installed and operated in accordance with the Erosion and Sediment Control Plan required by <b>Condition C18</b>; and</li> <li>b) Water management infrastructure that is installed and operated, in accordance with a Water Management Plan that complies with <b>Condition C20</b> for the purpose of ensuring water does not become mine affected water.</li> </ul>  |
| <b>C20</b> | <p><b>Water Management Plan</b></p> <p>A Water Management Plan must be developed by an appropriately qualified person and implemented for all stages of mining. The Water Management Plan must be submitted to the administering authority for review and comment within <b>3 months upon the grant of ML50232 and ML70002</b>.</p>   |
| <b>C21</b> | <p>The Water Management Plan must identify methods to:</p> <ul style="list-style-type: none"> <li>a) identify the environmental values of the receiving waters including Lagoon and Spring Creek and water quality objectives and how they will be protected;</li> <li>b) incorporate a risk management approach to how changing levels of flood, drought and water quality risks should be addressed;</li> <li>c) manage stormwater discharge;</li> <li>d) develop and implement a system for emergency spills or discharges including procedures to minimise extent and duration of release, staff training, investigation and reporting procedures;</li> <li>e) manage the environmental impacts of any release of wastewater to the environment so that any impacts are minimised including restricting any discharge to waters to occasions where there is flow in receiving waters to provide considerable dilution;</li> </ul>   |

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|------------|--|
|            | <p>f) separate clean water from undisturbed areas and water from disturbed areas;</p> <p>g) manage site water quality and quantity during the (3) phases of mining: development, operation and decommissioning and include a site water balance including groundwater generated through mine dewatering;</p> <p>h) safeguard against the potential for soil erosion and acid drainage; and</p> <p>i) provide details of operational monitoring and monitoring of hydrological processes including associated performance indicators.</p> |
| <b>C22</b> | Within twenty (20) business days of receiving comments from the administering authority as required by <b>Condition C20</b> , the Water Management Plan must be updated by a suitably qualified and experienced person having regard to the comments, and submitted to the administering authority..   |
| <b>C23</b> | A copy of the Water Management Plan and any subsequent amendment of the Water Management Plan must be kept at the place to which this environmentally relevant activity relates and be available for examination by Emergency Services Personnel or an authorised person on request.   |
| <b>C24</b> | If an exceedance in accordance with <b>Condition C15(b)</b> is identified, the holder of the environmental authority must notify the administering authority in writing within <b>24 hours of receiving the result</b> .   |

| Agency interest: Groundwater |  |
|------------------------------|--|
| Condition number             | Condition  |
| <b>D1</b>                    | <p><b>Contaminant release</b></p> <p>Contaminants must not be released, directly or indirectly, to groundwater. <del>The holder of this environmental authority must not release contaminants to groundwater.</del></p>  |
| <b>D2</b>                    | All determinations of groundwater quality and biological monitoring must be performed by an appropriately qualified person.  |
| <b>D3</b>                    | <p><del>Groundwater quality and levels must be monitored at the locations and frequencies defined in <b>Table D1 – Groundwater monitoring locations and frequency</b> for quality characteristics identified in <b>Table D2 – Groundwater quality triggers and limits</b>.</del></p> <p>Groundwater quality must be monitored:</p> <ol style="list-style-type: none"> <li>on a 6-monthly basis; and</li> <li>for the parameters and in the units specified in <b>Table D2: Groundwater quality triggers and limits</b>; and</li> <li>at all monitoring bores (including compliance and interpretation bores) in <b>Table D1: Groundwater monitoring locations and frequency and Appendix X: (Groundwater Monitoring Bores)</b>.</li> </ol> |
| <b>D4</b>                    | <p><del>Groundwater levels when measured at the monitoring locations specified in <b>Table D1 – Groundwater monitoring locations and frequency</b> must not exceed the groundwater level trigger change thresholds specified in <b>Table D3 – Groundwater level monitoring</b> below.</del></p> <p>Groundwater levels must not exceed the groundwater level trigger thresholds specified in <b>Table D3: Groundwater level monitoring</b> and be monitored:</p>  |

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|           | <p>a) on a monthly basis; and</p> <p>b) at all monitoring bores in <b>Table D3: Groundwater level monitoring</b>.</p>  |
| <b>D5</b> | <p>Within two years of this environmental authority taking effect, the environmental authority holder must submit to the administering authority:</p> <p>a) all contaminant trigger levels listed as TBA in <b>Table D2: Groundwater quality triggers and limits</b>; and</p> <p>b) all levels listed as TBA in <b>Table D3: Groundwater level monitoring</b>.</p> |

Table D1: Groundwater monitoring locations and frequency

| Groundwater Monitoring Point-Bore | Monitoring Bore Type | Aquifer Compliance Bore (C)<br>To be specified for each monitoring bore | Location (GDA94 — Zone 56) |              | Parameter <sup>1</sup> and Monitoring Frequency   |
|-----------------------------------|----------------------|---|----------------------------|--------------|---|
|                                   |                      |   | Easting (m)                | Northing (m) |   |
| 2289P                             | Compliance           | Coal measures (C)   | 371265                     | 6983532      | Groundwater levels: monthly<br>Groundwater quality:<br>Six monthly to include:<br>Al, As, Ca, Se, Cl, Cu, F, Fe, Total N, K, Mg, Mn, Na, SO <sub>4</sub> , HCO <sub>3</sub> , TDS, EC, pH |
| 2291P                             | Compliance           | Coal measures (C)   | 374620                     | 6980033      |   |
| 18P                               | Compliance           | Coal measures (C)   | 371028                     | 6982641      |   |
| 25P                               | Compliance           | Coal measures (C)   | 374146                     | 6982057      |   |
| 26P                               | Compliance           | Coal measures (C)   | 374266                     | 6982977      |   |
| 27P                               | Compliance           | Coal measures (C)   | 373360                     | 6983554      |   |
| 28P                               | Compliance           | Coal measures (C)   | 372328                     | 6983977      |   |
| 843                               | Compliance           | Basalt (C)  | 370698                     | 6981283      |   |
| 848                               | Compliance           | Coal measures (C)   | 370705                     | 6981723      |   |
| 81P                               | Compliance           | Coal measures (C)   | 375003                     | 6979638      |   |
| 82P                               | Compliance           | Coal measures (C)   | 373697                     | 6978814      |   |
| 83P                               | Compliance           | Coal measures (C)   | 371854                     | 6979679      |   |

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| Groundwater Monitoring Point-Bore | Monitoring Bore Type | Aquifer Compliance Bore (C)<br>To be specified for each monitoring bore | Location (GDA94 — Zone 56) |              | Parameter <sup>1</sup> and Monitoring Frequency |
|-----------------------------------|----------------------|---|----------------------------|--------------|---|
|                                   |                      |   | Easting (m)                | Northing (m) |   |
| 84P                               | Compliance           | Basalt (C)  | 370355                     | 6982187      |   |
| BMH1                              | Compliance           | Basalt (C)  | 369658                     | 6982204      |   |
| CSMH1                             | Compliance           | Coal measures (C)   | 375404                     | 6977336      |   |
| 109P                              | Interpretation       | Basalt  | 368263                     | 6982378      |   |
| 122PGC                            | Interpretation       | Coal measures   | 370656                     | 6977837      |   |
| 114P                              | Interpretation       | Coal measures   | 371806                     | 6976037      |   |
| 116P                              | Interpretation       | Coal measures   | 374220                     | 6975132      |   |
| 119PGC                            | Interpretation       | Coal measures   | 371609                     | 6973337      |   |
| 120WB                             | Interpretation       | Coal measures   | 367523                     | 6976115      |   |
| 121WB                             | Interpretation       | Coal measures   | 368472                     | 6978441      |   |
| 1A                                | Interpretation       | Basalt  | 366548                     | 6982090      |   |
| 1B                                | Interpretation       | Coal measures   | 366548                     | 6982090      |   |
| 2A                                | Interpretation       | Basalt  | 365884                     | 6979300      |   |
| 2B                                | Interpretation       | Coal measures   | 365884                     | 6979300      |   |
| 3A                                | Interpretation       | Basalt  | 369416                     | 6973707      |   |
| 3B                                | Interpretation       | Coal measures   | 369416                     | 6973707      |   |
| 4A                                | Interpretation       | Basalt  | 365800                     | 6977025      |   |
| 4B                                | Interpretation       | Coal measures   | 365800                     | 6977025      |   |
| 4C                                | Interpretation       | Marburg Sandstone   | 365800                     | 6977025      |   |
| 5A                                | Interpretation       | Oakey Creek alluvium  | 373845                     | 6972482      |   |
| 5B                                | Interpretation       | Coal measures   | 373845                     | 6972482      |   |
| 5C                                | Interpretation       | Marburg Sandstone   | 373845                     | 6972482      |   |

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| Groundwater Monitoring Point-Bore | Monitoring Bore Type | Aquifer Compliance Bore (C)<br>To be specified for each monitoring bore | Location (GDA94 — Zone 56) |              | Parameter <sup>1</sup> and Monitoring Frequency |
|-----------------------------------|----------------------|---|----------------------------|--------------|---|
|                                   |                      |   | Easting (m)                | Northing (m) |   |
| 6                                 | Interpretation       | Coal measures   | 375435                     | 6975738      |   |
| 7A                                | Interpretation       | Basalt  | 367572                     | 6982694      |   |
| 7B                                | Interpretation       | Coal measures   | 367572                     | 6982694      |   |
| 8                                 | Interpretation       | Mine Pit Backfill   | 372514                     | 6982689      |   |
| 2289_Lower                        | Compliance           | Coal measures (C)   | 371266                     | 6983554      |   |
| 25P(R)                            | Compliance           | Coal measures (C)   | 374036                     | 6981883      |   |
| 26P(R)                            | Compliance           | Coal measures (C)   | 374158                     | 6982801      |   |
| 10Pb                              | Compliance           | Basalt (C)  | 370359                     | 6980896      |   |
| 4517WB                            | Compliance           | Coal measures (C)   | 369728                     | 6980680      |   |
| 4518WB                            | Compliance           | Coal measures (C)   | 369265                     | 6979260      |   |

<sup>1</sup> - Aluminium (Al), Arsenic (As), Calcium (Ca), Selenium (Se), Chloride (Cl), Copper (Cu), Fluorine (F), Iron (Fe), Total Nitrogen (Total N), Potassium (K), Magnesium (Mg), Manganese (Mn), Sodium (Na), Sulphate (SO<sub>4</sub>), Bicarbonate (HCO<sub>3</sub>), Total dissolved solids (TDS), Electrical conductivity (EC), Acidity/alkalinity (pH)

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**Table D2: Groundwater quality triggers and limits**

**“TBAs” in table D2 to be revised once adequate sampling has been undertaken by the holder which must be completed within 2 years of commencement of this environmental authority to add groundwater bores that measure groundwater quality and the triggers and limits relevant to each bore**

| Parameter        | Units | Contaminant Limit <sup>5</sup> | Monitoring frequency |
|------------------|-------|--------------------------------|----------------------|
| Al               | mg/l  | 5.0                            | Half yearly          |
| As               | mg/l  | .05                            | Half yearly          |
| Ca               | mg/l  | 1000                           | Half yearly          |
| Se               | mg/l  | 0.02                           | Half yearly          |
| Cl               | mg/l  | TBA                            | Half yearly          |
| Cu               | mg/l  | 1.0 <sup>2</sup>               | Half yearly          |
| F                | mg/l  | TBA                            | Half yearly          |
| Fe               | mg/l  | TBA                            | Half yearly          |
| NO <sub>3</sub>  | mg/l  | 400                            | Half yearly          |
| NO <sub>2</sub>  | mg/l  | 30                             | Half yearly          |
| K                | mg/l  | TBA                            | Half yearly          |
| Mg               | mg/l  | TBA                            | Half yearly          |
| Mn               | mg/l  | TBA                            | Half yearly          |
| Na               | mg/l  | TBA                            | Half yearly          |
| SO <sub>4</sub>  | mg/l  | 1000                           | Half yearly          |
| HCO <sub>3</sub> | mg/l  | TBA                            | Half yearly          |
| TDS              | mg/l  | 5000 <sup>2,3</sup>            | Half yearly          |
| EC               | mg/l  | 7460 <sup>2,3,4</sup>          | Half yearly          |
| pH               | unit  | TBA                            | Half yearly          |

1 - Based on Stockwater limits defined in ANZECC (2000)

2 - Defined for beef cattle based on landholder bore survey results

3 - Existing bores 27P, 28P, 2289 and 118P background levels already exceed this limit prior to mine operation

4 - Based on EC to TDS conversion factor of 0.67 as per ANZECC (2000)

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Table D3: Groundwater level monitoring

| Monitoring Point | Level trigger threshold |
|------------------|-------------------------|
| 2289P            | TBA <sup>1</sup>        |
| 2291P            | 52.0 (±5m)              |
| 18P              | 130.0 (±5m)             |
| 25P              | TBA <sup>1</sup>        |
| 26P              | TBA <sup>1</sup>        |
| 27P              | 50.0 (±5m)              |
| 28P              | 50.0 (±5m)              |
| 843              | TBA <sup>1</sup>        |
| 848              | TBA <sup>1</sup>        |
| 81P              | 42.0 (±5m)              |
| 82P              | 48.0m (±5m)             |
| 83P              | TBA <sup>1</sup>        |
| 84P              | TBA <sup>1</sup>        |
| BMH1             | 96.0 (±5m)              |
| CSMH1            | 90.0 (±5m)              |
| 109P             | TBA <sup>1</sup>        |
| 122PGC           | TBA <sup>1</sup>        |
| 114P             | TBA <sup>1</sup>        |
| 116P             | TBA <sup>1</sup>        |
| 119PGC           | TBA <sup>1</sup>        |
| 120WB            | TBA <sup>1</sup>        |
| 121WB            | TBA <sup>1</sup>        |
| 1A               | TBA <sup>1</sup>        |
| 1B               | TBA <sup>1</sup>        |
| 2A               | TBA <sup>1</sup>        |
| 2B               | TBA <sup>1</sup>        |
| 3A               | TBA <sup>1</sup>        |
| 3B               | TBA <sup>1</sup>        |
| 4A               | TBA <sup>1</sup>        |

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| Monitoring Point | Level trigger threshold |
|------------------|-------------------------|
| 4B               | TBA <sup>1</sup>        |
| 4C               | TBA <sup>1</sup>        |
| 5A               | TBA <sup>1</sup>        |
| 5B               | TBA <sup>1</sup>        |
| 5C               | TBA <sup>1</sup>        |
| 6                | TBA <sup>1</sup>        |
| 7A               | TBA <sup>1</sup>        |
| 7B               | TBA <sup>1</sup>        |
| 8                | TBA <sup>1</sup>        |
| 2289_ Lower      | 59.7m (±5m)             |
| 25P(R)           | 97.8m (±5m)             |
| 26P(R)           | 90.0m (±5m)             |
| 10Pb             | 25.0m (±5m)             |
| 4517WB           | 43.5m (±5m)             |
| 4518WB           | 59.0m (±5m)             |

<sup>1</sup>To be provided — Water level trigger thresholds will be proposed following 12 months of monitoring of the new bores and following the first update of the groundwater model prior to the operation of the revised project.

|           |  |
|-----------|--|
| <b>D5</b> | <p><b>Exceedance investigation</b></p> <p>If quality characteristics of groundwater from compliance bores identified in <b>Table D1 – Groundwater monitoring locations and frequency</b> exceed any of the trigger levels stated in <b>Table D2 – Groundwater quality triggers and limits</b> or exceed any of the groundwater level trigger threshold stated in <b>Table D3 – Groundwater level monitoring</b>, the holder of this environmental authority must compare the compliance monitoring bore results to the reference bore results and complete an investigation in accordance with the ANZECC and ARMCANZ 2000.</p> <p>If the contaminant limits specified in <b>Table D2 - Groundwater quality triggers and limits</b>, or groundwater level requirements in <b>Table D3: Groundwater level monitoring</b> are exceeded at any monitoring bore:</p> <ol style="list-style-type: none"> <li>a) an investigation must be completed within <b>fourteen (14) days</b> of becoming aware of the exceedance; and</li> <li>b) a report on the investigation must be submitted to the administering authority via WaTERS within 14 days of completion of the investigation; and</li> <li>c) the report must include a determination of whether the exceedance is caused by: <ol style="list-style-type: none"> <li>i. the mining activities; or</li> <li>ii. natural variation; or</li> </ol> </li> </ol> |
|-----------|--|

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|            | iii. neighbouring land use resulting in groundwater impacts.   |
| <b>D5A</b> | If the investigation under <b>Condition D5</b> determines that the exceedance was caused by the mining activities including construction and rehabilitation, then a further investigation must be undertaken which must determine whether environmental harm has occurred or may occur, and the extent thereof.  |
| <b>D5B</b> | If the investigation undertaken under <b>Condition D5</b> determines that environmental harm has occurred, or may occur, the following action must be taken within twenty-eight (28) days after completing the investigation under <b>Condition D5</b> : <ul style="list-style-type: none"> <li>a) implementation of immediate measures to reduce environmental harm including potential environmental harm; and</li> <li>b) development of long-term mitigation measures to address any existing groundwater contamination and prevent recurrence of groundwater contamination which is implemented in a reasonable time period; and</li> <li>c) document the steps taken under (a) and (b) and provide the documentation to the administering authority.</li> </ul>  |
| <b>D6</b>  | <del>Results of monitoring of groundwater from compliance bores identified in <b>Table D1 – Groundwater monitoring locations and frequency</b> must not exceed any of the limits defined in <b>Table D2 – Groundwater quality triggers and limits</b>.</del><br>Groundwater contaminant limits specified in <b>Table D2 - Groundwater quality triggers and limits</b> must not be exceeded at the same monitoring bore on three (3) consecutive occasions.   |
| <b>D7</b>  | <b>Bore construction and maintenance and decommissioning</b><br>The construction, maintenance and management of groundwater bores (including groundwater monitoring bores) must be undertaken in a manner that prevents or minimises impacts to the environment and ensures the integrity of the bores to obtain accurate monitoring.  |
| <b>D8</b>  | <b>Groundwater management and monitoring program</b><br>The approved Groundwater Management and Monitoring Program required by Imposed Condition 10, in Appendix 1, of the CG's report must be provided, to the administering authority, within 20 business days of it being approved.   |
| <b>D9</b>  | In addition to the requirements of Imposed Condition 10 in Appendix 1 of the CG's report, a plan must be developed and certified by an appropriately qualified person to meet the following objectives: <ul style="list-style-type: none"> <li>a) identification of groundwater drawdown level thresholds for monitoring the impacts to Groundwater Dependant Ecosystems; and</li> <li>b) collection and analysis of data that identifies natural groundwater level trends for identification of water level impact to authorised water users from the mining operation as required by Schedule 3, recommended Condition 1 in Appendix 3 of the CG's report.</li> </ul> The plan must be provided to the administering authority in conjunction with submission of the approved program in <b>Condition D8</b> . |
| <b>D10</b> | <b>Monitoring Program Review</b>   |

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|            | The environmental authority holder must provide the approved report required by Imposed Condition 11, in Appendix 1, of the CG's report, to the administering authority, within <b>20 business days</b> of the report being approved.   |
| <b>D11</b> | The plan required under <b>Condition D9</b> must be reviewed by an appropriately qualified person in accordance with the requirements of Imposed Condition 11 in Appendix 1 of the CG's report, and be provided to the administering authority in conjunction with the submission of the approved report in <b>Condition D10</b> .  |
| <b>D12</b> | <b>Groundwater model review</b><br>The environmental authority holder must provide the approved report required by Imposed Condition 12, in Appendix 1, of the CG's report, to the administering authority, within <b>20 business days</b> of it being approved.  |
| <b>D13</b> | <b>General requirements — Oakey Creek Alluvial aquifer</b><br>As a component of the second and subsequent reviews of the New Acland Coal numerical groundwater model the environmental authority holder must provide an approved (under <i>Water Act 2000</i> ) report outlining the impact on the Oakey Creek Alluvial aquifer, to the administering authority. The report should:<br>a) Establish any identified impact associated with mining activities, if any, on the Oakey Creek Alluvial aquifer;<br>b) Include an assessment of natural and potential pumping based water level variation caused by non-mining authorised users, in the Oakey Creek Alluvial aquifer;<br>c) Outline any requirements for additional modelling or monitoring required;<br>d) If the investigation under Condition <b>D13(a)</b> concludes that there is an identified impact on the Oakey Creek Alluvial aquifer as a result of mining activities, the environmental authority holder must determine the volumetric impact associated with the identified impact; and<br>e) If the impact is determined to be the result of mining activities, the environmental authority may be required to construct additional monitoring bores. Additional monitoring bores are to be incorporated in the Groundwater Monitoring and Management Plan required by <b>Condition D8</b> . |
| <b>D14</b> | <b>Main Range Volcanics aquifer</b><br>The environmental authority holder must determine the long term impact of the take of water from the Main Range Volcanics aquifer and incorporate this into the second review of the New Acland Coal numerical groundwater model pursuant to <b>Conditions D8 — D12</b> .  |
| <b>D15</b> | A groundwater monitoring network must be maintained. The network must:<br>a) be installed and maintained by a person possessing appropriate qualifications and experience in the fields of hydrogeology and groundwater monitoring program design to be able to competently make recommendations about these matters;<br>b) be constructed in accordance with methods prescribed in either the latest version of the documents titled 'Minimum Construction Requirements for Water Bores in Australia' or the 'Minimum standards for the construction and reconditioning of water bores that intersect the sediments of artesian basins in Queensland', whichever applies; and<br>c) include a sufficient number of 'bores of compliance' that are located at an appropriate distance from potential sources of impact from mining activities and provides the following:   |

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|  | <ul style="list-style-type: none"> <li>(i) representative groundwater samples from the uppermost aquifer; and</li> <li>(ii) background water quality in hydraulically up-gradient or background bore(s) that have not been affected by any mining activities to groundwater's; and</li> <li>(iii) the quality of groundwater downgradient of any potential source of contamination including groundwater passing the relevant bore(s) of compliance.</li> </ul> |
|--|---|

| Agency interest: Waste Management |  |
|-----------------------------------|--|
| Condition number                  | Condition  |
| <b>E1</b>                         | Unless otherwise permitted by the conditions of this environmental authority or with prior approval from the administering authority and in accordance with a relevant standard operating procedure, waste must not be burnt.  |
| <b>E2</b>                         | The holder of this environmental authority may burn vegetation cleared in the course of carrying out extraction activities provided the activity does not cause environmental harm at any sensitive place or commercial place.   |
| <b>E3</b>                         | The holder of this environmental authority may dispose of inert waste (packing material) associated with blasting into open pits, buried in such a manner that it will not impede saturated aquifers.  |
| <b>E4</b>                         | <p><b>Storage of tyres</b></p> <p>Tyres stored awaiting disposal or transport for take-back and, recycling, or waste-to-energy options - should be stockpiled in volumes less than 3m in height and 200m<sup>2</sup> in area and at least 10m from any other tyre storage area.</p>  |
| <b>E5</b>                         | <p><b>Disposal of tyres</b></p> <p>Scrap tyres resulting from the mining activities can be disposed of into open pits provided tyres are placed as deeply in the spoil as reasonably possible and this practice does not cause an unacceptable fire risk or compromise mine safety.</p>  |
| <b>E6</b>                         | Scrap tyres resulting from the mining activities disposed within the operational land must not impede saturated aquifers or compromise the stability of the consolidated landform.   |
| <b>E7</b>                         | <p><b>Tailings disposal</b></p> <p>Tailings must be managed in accordance with procedures contained within the <del>current plan of operations</del> a Tailings Management Plan, which must provide for the following: <del>must include provisions for:</del></p> <ul style="list-style-type: none"> <li>a) containment of tailings;</li> <li>b) the management of seepage and leachates both during operation and the foreseeable future;</li> <li>c) the control of fugitive emissions to air;</li> <li>d) maintaining records of the relative locations of any other waste stored within the tailings;</li> <li>e) rehabilitation strategy; and</li> </ul> |

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|                               | f) monitoring of rehabilitation, research and/or trials to verify the requirements and methods for decommissioning and final rehabilitation of tailings, including the prevention and management of acid mine drainage, erosion minimisation and establishment of vegetation cover.   |
| <b>E8</b>                     | <b>Green waste storage</b><br>The waste management hierarchy must be considered in the management of green waste.   |
| <b>Agency interest: Noise</b> |   |
| <b>Condition number</b>       | <b>Condition</b>  |
| <b>F1</b>                     | <p><b>Noise limits</b></p> <p>The holder of this environmental authority must ensure that noise generated by the mining activities does not cause or contribute to the criteria in <b>Table F1- Noise limits</b> to be exceeded at a noise sensitive place or commercial place.</p> <p>Note: the measurement of noise for a noise sensitive place or commercial place is either:</p> <ul style="list-style-type: none"> <li>a) at that place (if measured there); or</li> <li>b) at the monitoring location to which the noise sensitive or commercial place is correlated (where there is no measure at the noise sensitive or commercial place).</li> </ul> <p>The measurement of noise to determine compliance with this condition is not limited to compliance monitoring required by <b>Conditions F4 or F4a</b>.</p> <p>All noise arising from loading and unloading of trains and from trains idling on ML50232 or ML700002 will be considered mining noise and must meet the limits in rows 1 and 2 of <b>Table F1</b>.</p> <p>Noise which is distinguishable as train noise arising from a train in transit on ML50232 or ML700002 is considered rail spur noise and must meet the limits in row 3 and 4 of <b>Table F1</b>.</p> |
| <b>F2</b>                     | <p>If performance or compliance monitoring indicates the potential for exceedance of the relevant limits in <b>Table F1 — Noise Limits</b> then the environmental authority holder must immediately implement noise abatement measures to avoid exceeding the relevant limits.</p> <p>Note: the real time monitoring will indicate the potential for exceedances of the relevant limits if the noise level measured at the monitoring locations (as corrected and correlated in accordance with the Noise and Vibration Management Plan) approaches the relevant limits in <b>Table F1 — Noise Limits</b>.</p>  |
| <b>F3</b>                     | <p>Notwithstanding any other condition of this environmental authority, noise from the activity must not cause or contribute to an environmental nuisance, at any noise sensitive place.</p> <p>The measurement of noise to determine compliance with this condition is not limited to compliance monitoring required by <b>Conditions F4 or F4a</b>.</p>   |

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| <b>F4</b>  | <p><b>Compliance Monitoring and reporting</b></p> <p>A Compliance Noise Monitoring Program must be developed by a suitably qualified and experienced person in relation to noise and implemented for all stages of mining to monitor compliance with <b>Table F1 - Noise limits</b> at the frequency and locations in <b>Table F2- Compliance noise monitoring locations and frequency</b>.</p> <p>The Stage 3 New Acland mine project may not commence until the administering authority has approved the Compliance Noise Monitoring Program and the Compliance Noise Monitoring Program has been made publicly available.</p> <p>Compliance monitoring must not be conducted on the same days each month. The person conducting the compliance monitoring must not provide notice to the environmental authority holder of the times or days when the compliance monitoring is to be conducted.</p> <p>Any monitoring data collected by the environmental authority holder on private property must be provided to the owner of that private property within 10 days of receiving any request for such data from the property owner.</p> |
| <b>F4a</b> | <p>When requested by the administering authority, noise monitoring and recording must be undertaken within a reasonable and practicable timeframe to investigate any complaint of environmental noise nuisance at any noise sensitive place. In response to any such request, the holder of this environmental authority must undertake continuous monitoring of not less than <b>7 days</b> to capture weather-related variations and variety in different operational conditions on site in noise levels and provide the results to the administering authority within 14 days following completion of monitoring.</p>  |

Table F1- Noise limits (includes construction activities)

| Noise level dB(A)<br>measured as                   | All days  |            |            |
|--|-----------|------------|------------|
|  | 7am — 6pm | 6pm — 10pm | 10pm — 7am |
| <b>Noise measured at a 'Noise sensitive place'</b> |           |            |            |
| L <sub>Aeq, adj, 15 min</sub>                      | 42        | 35         | 35         |
| L <sub>Amax</sub>                                  | -         | -          | 50         |
| L <sub>Amax</sub><br>rail spur                     | -         | -          | 56         |
| L <sub>Aeq(24hr)</sub><br>rail spur                | -         | -          | 50         |

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| F5  | <p>Noise monitoring and recording required by <b>Conditions F4 and F4a</b> must be conducted in accordance with the administering authority's Noise Measurement Manual and must include the following:</p> <ul style="list-style-type: none"> <li>a) LA01, adj, 15 min - day, evening &amp; night; LA10, adj, 15 min - day, evening &amp; night; LAeq, adj, 15 min- day, evening &amp; night; and LA90, adj, 15 min - day, evening &amp; night;</li> <li>b) background noise LA90;</li> <li>c) the level and frequency of occurrence of impulsive or tonal noise and any adjustment and penalties to statistical levels;</li> <li>d) atmospheric conditions including temperature, relative humidity and wind speed and directions;</li> <li>e) effects due to any extraneous factors such as traffic noise and natural sources (e.g. insects, birds and wind);</li> <li>f) location, date and time of monitoring;</li> <li>g) if a complaint concerns low frequency noise and where permitted by the owner or occupier of the noise sensitive place: L<sub>LIneq 10 mins (internal)</sub>, L<sub>Aeq 10 mins (internal)</sub> and one third octave band measurements in L<sub>LIneq 10 mins (internal)</sub> for centre frequencies in the 10 – 200 Hz range;</li> <li>h) maximum (L<sub>Amax</sub>) noise levels – night (for a minimum of 30 minutes); and</li> <li>i) <sup>1</sup>/<sub>3</sub> octave band spectrums.</li> </ul>  |
| F6  | <p>A real-time Performance Noise Monitoring Program must be developed by a suitably qualified and experienced person and implemented for all stages of mining to monitor and adaptively manage activities to avoid exceedances of the noise limits in <b>Table F1 - Noise limits</b> at a noise sensitive place or commercial place.</p> <p>The Performance Noise Monitoring Program must include the use of the Type 1 calibrated microphone and audio recordings and must include noise monitoring at the following locations:</p> <ul style="list-style-type: none"> <li>a) a location in Acland to be identified in the Noise Monitoring Program;</li> <li>b) a location to the east of the New Acland mine to be identified in the Noise Monitoring Program;</li> <li>c) a location to the north of the New Acland mine to be identified in the Noise Monitoring Program; and</li> <li>d) a location to the west of the New Acland mine to be identified in the Noise Monitoring Program.</li> </ul> <p>The Stage 3 New Acland mine project may not commence until the administering authority has approved the Performance Noise Monitoring Program.</p> <p><b>NOTE:</b> The performance monitoring required under this condition is to be used for performance management. An exceedance of the noise limits in <b>Table F1 - Noise limits</b> identified by the performance monitoring does not necessarily translate to a breach of <b>Conditions F1 or F3</b>. However, the administering authority may use the data collected by the performance monitoring equipment, including the data collected from the Type 1 microphone and the audio data, to assess compliance with <b>Conditions F1 and F3</b> of this environmental authority at its discretion.</p> |
| F6a | <p>An annual noise monitoring program report must be provided to the administering authority that details:</p> <ul style="list-style-type: none"> <li>a) the areas in which extraction and overburden dumping occurred each month for the preceding 12 months and the areas in which extraction and overburden dumping are predicted to occur each month for the next 12 months;</li> <li>b) modelling that predicts whether any of the noise limits in <b>Table F1 - Noise limits</b> are likely to be exceeded without adaptive management for the next 12 months;</li> <li>c) the Areas of Interest (AOI) used in the preceding 12 months and proposed to be used for the next 12 months and the corresponding correction factor applied or</li> </ul>  |

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|           | <p>proposed to be applied to each AOI including a break down of each correction factor to account for:</p> <ol style="list-style-type: none"> <li>a. exclusion of any frequency bands used in the real time performance monitoring system;</li> <li>b. the use of directional microphones and AOI;</li> <li>c. any difference between the noise measured at the monitor and the noise likely to be experienced at the noise sensitive place; and</li> <li>d. situations in which a single monitor may have more than one AOI</li> </ol> <p>d) a comparison between the monthly compliance monitoring and the real time monitoring data, and a report on how the correction factors were adjusted to account for any material discrepancies during the reporting period;</p> <p>e) a report on the extent and frequency of noise measured by the Performance Monitoring Program as attributable to mining exceeding the noise limits in <b>Table F1- Noise limits</b>;</p> <p>f) details of any exceedances of the noise limits in <b>Table F1- Noise limits</b> at a noise sensitive place or commercial place identified by the monitoring required by <b>Conditions F4 and F4a</b> attributable to mining activities and the mitigation steps taken in response.</p> |
| <b>F7</b> | <p>All real-time performance monitoring parameters required by <b>Condition F6</b> must be made publicly available for the life of the mine, online and in real-time in a format that includes:</p> <ol style="list-style-type: none"> <li>a) the noise limits;</li> <li>b) LAeq, adj 15 min interval levels;</li> <li>c) LMax, 15 min interval levels; and</li> <li>d) exclusion times and a brief statement for the reason for the exclusion.</li> </ol> <p>The audio recording collected by the real time monitoring system must be retained by the environmental authority holder.</p> <p>Upon request from the administering authority, copies of any audio recording of monitoring events must be made available and provided to the administering authority's nominated office within 10 business days or an alternative timeframe agreed between the administering authority and the holder.</p> <p>Data must be retained by the environmental authority holder for the life of the mine.</p>  |
| <b>F8</b> | <p><b>Noise management</b></p> <p>A Noise and Vibration Management Plan must be developed by a suitably qualified and experienced person (who has been approved by the administering authority) and must be approved by the administering authority prior to the commencement of the Stage 3 New Acland mine project .</p> <p>The Noise and Vibration Management Plan must be implemented for all stages of mining.</p>  |
| <b>F9</b> | <p>The Noise and Vibration Management Plan must incorporate a program for continuous improvements for the management of noise emissions caused by mining operations and must include, but is not limited to:</p> <ol style="list-style-type: none"> <li>a) a detailed description of the noise management system;</li> <li>b) a description of the noise mitigation measures that would be implemented to ensure best practice noise management is being employed, is regularly benchmarked against contemporary industry standards and is regularly reviewed to ensure continual improvement;</li> <li>c) the Compliance and Performance Noise Monitoring Programs described in <b>Conditions F4 and F6</b>;</li> </ol>   |

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|            | <p>d) a comprehensive noise management system that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive mitigation measures to ensure compliance with these conditions, improved understanding of noise data at the monitoring locations in <b>Table F2 - Compliance noise monitoring locations and frequency</b> and its correlation with the noise data collected from the locations specified in <b>Condition F6</b>;</p> <p>e) a protocol for ensuring the real time noise monitoring system remains corrected and correlated to account for:</p> <ol style="list-style-type: none"> <li>a. exclusion of any frequency bands used in the real time performance monitoring system;</li> <li>b. the use of directional microphones and AOI;</li> <li>c. any difference between the noise measured at the monitor and the noise likely to be experienced at the noise sensitive place</li> </ol> <p>including a protocol to ensure that a re-correction or correlation assessment is undertaken each time there is a change in an AOI or a change (more than 300m) in the distance between mining activities and the monitoring location.</p> <p>f) a protocol for ensuring avoidance of exceedances of the LA max noise limits;</p> <p>g) a requirement for an automatic addition of +4 dB to monitoring data recorded in the real time monitoring system when sound with a tonal and impulsive character has been identified. This system will remain in place until a quantitative way of applying tonal and impulsive character adjustments to the monitored noise level has been submitted to and approved by the administering authority;</p> <p>h) a protocol for recording and responding to complaints;</p> <p>i) the content of the monthly compliance report required under <b>Condition 3</b> of the imposed conditions of the Coordinator-General, including:</p> <ul style="list-style-type: none"> <li>• the data that must be provided in that report, including blast monitoring results; and</li> <li>• that the data must be analysed against the noise limits detailed in <b>Table F1 – Noise limits</b> and any exceedances of the noise limits in <b>Table F1- Noise limits</b> at a noise sensitive place or commercial place attributable to mining activities must be identified and the mitigation steps taken in response described; and</li> <li>• that the report must be produced to present information from noise monitoring in a manner that is clear, open and unambiguous</li> </ul> |
| <b>F10</b> | <p>The environmental authority holder must, at their own cost, appoint an independent acoustic consultant to review the monthly noise reports required under <b>Condition 3</b> of the imposed conditions of the Coordinator-General for a <b>twelve (12) month period</b> following the commencement of reporting. The peer review monthly reports must be submitted to the administering authority within 14 days of submission of the monthly reports and be made publicly available within 7 days of being provided to the administering authority. The peer review reports must assess the content and the formatting of the monthly reports.</p>  |
| <b>F11</b> | <p><b>Mitigation</b></p> <p>Upon receiving a written request from the owner of a noise sensitive place shown in <b>Figure 5 — Location of sensitive receptors</b> the environmental authority holder must implement additional reasonable and feasible noise mitigation measures at the noise sensitive place in consultation with the owner.</p>   |

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|  | <p>If within <b>3 months</b> of receiving this request, the environmental authority holder and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to a suitably qualified and experienced person in relation to noise appointed by the Chief Executive of the administering authority or the President for the time being of the Institute of Engineers for resolution. The suitably qualified and experienced person's decision as to the mitigation measures to be implemented must be final.</p> <p>The environmental authority holder is responsible for payment of costs of the suitably qualified and experienced person in relation to noise.</p> <p>The implementation of mitigation measures does not remove the requirement for the environmental authority holder to achieve compliance with the noise limits in <b>Table F1</b> unless there is a private agreement to the contrary between the environmental authority holder and the owner from time to time.</p> |
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**Table F2 - Compliance noise monitoring locations and frequency**

| Monitoring location*  |  | Frequency  |
|---|--|--|
| 1 (Acland)  |  | Monthly  |
| 34 (rail spur), 35 and 38 (or alternative noise sensitive places identified in the Noise Monitoring Program developed pursuant to condition F4)                               |  | Monthly  |
| 4, 8 and 10 (or alternative noise sensitive places identified in the Noise Monitoring Program developed pursuant to condition F4)   |  | Monthly  |
| 11, 15, 16 (if occupied) and 19 (or alternative noise sensitive places identified in the Noise Monitoring Program developed pursuant to condition F4)                         |  | Monthly  |
| Seven (7) days unattended monitoring at the above noise sensitive places or alternate locations identified in the Noise Monitoring Program developed pursuant to condition F4 |  | Monthly for first 12 months after approval of the Noise Monitoring Program |

\*See Figure 5 - Location of sensitive receptors

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| <b>F12</b> | <p><b>Airblast overpressure nuisance</b></p> <p>The holder of this environmental authority must ensure that blasting does not cause the limits for peak particle velocity and air blast overpressure in <b>Table F3 — Blasting noise limits</b> to be exceeded at a noise sensitive place or commercial place.</p>   |
| <b>F13</b> | <p>The holder of this environmental authority must develop and implement a blast monitoring program to monitor compliance with <b>Table F3 — Blasting noise limits</b> for:</p> <p>a) At least 90% of all blasts undertaken on this site in each year at the nearest noise sensitive place or commercial place to the centroid of the blast; and</p> <p>b) All blasts conducted during any time period specified by the administering authority at the nearest noise sensitive place or commercial place.</p> <p>Results of the blast monitoring program must be included in the monthly compliance monitoring report provided to the administering authority.</p> |

Table F3: Blasting noise limits

| Blasting noise limits                   | Noise sensitive place or commercial place blasting noise limits   |  |
|---|---|--|
|   | Monday to Friday 7am to 6pm<br>Saturday 9am to 1 pm   | Monday to Friday: before 7am and after 6pm<br>Saturday: before 9am and after 1 pm<br>Sunday and Public Holidays <sup>^</sup> |
| Airblast overpressure                   | 115 dB (Linear) Peak for 9 out of 10 consecutive blasts initiated and not greater than 120 dB (Linear) Peak at any time                   | No blasting  |
| Ground vibration peak particle velocity | 5mm/second peak particle velocity for 9 out of 10 consecutive blasts and not greater than 10 mm/second peak particle velocity at any time | No blasting  |

<sup>^</sup> Blasting not permitted on Sundays and public holidays

| Agency interest: Sewage Treatment |   |
|-----------------------------------|---|
| Condition number                  | Condition   |
| <b>G1</b>                         | All effluent released from the treatment plant must be monitored at the frequency and for the parameters specified in <b>Table G1 — Sewage Effluent Quality Targets for Dust Suppression and Irrigation</b> . |

Table G1: Sewage Effluent Quality Targets for Dust Suppression and Irrigation

| Contaminant | Unit | Release limit | Limit type | Frequency |
|-------------|------|---------------|------------|-----------|
|-------------|------|---------------|------------|-----------|

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| 5-day Biochemical oxygen demand (uninhibited)                                 | mg/L   | 20         | Maximum | Quarterly |
| Faecal coliforms, based on the average of a minimum of five samples collected | Colony forming units/100ml<br>Colonies/100ml | 1000       | Maximum | Quarterly |
| Total suspended solids  | mg/L   | 30         | Maximum | Quarterly |
| Nitrogen  | mg/L   | 15         | Maximum | Quarterly |
| Phosphorus  | mg/L   | 1000       | Maximum | Quarterly |
| pH  | pH units                                     | 6.0 — 9.0. | Range   | Quarterly |

|           |   |
|-----------|---|
| <b>G2</b> | Treated sewage effluent used for dust suppression or irrigation must not exceed sewage release limits defined in <b>Table G1 — Sewage Effluent Quality Targets for Dust Suppression and Irrigation</b> .  |
| <b>G3</b> | Sewage effluent used for dust suppression or irrigation must not cause spray drift or overspray to any sensitive place.   |
| <b>G4</b> | Subject to <b>Condition G5</b> , sewage effluent from sewage treatment facilities must be reused or evaporated and must not be directly released from the sewage treatment plant to any water way or drainage line.   |
| <b>G5</b> | In periods of wet weather or following wet weather, when the irrigation of effluent is reasonable not practicable and when effluent storage ponds are full, the release of effluent to waters is permitted in accordance with the release limits in <b>Table G1 - Sewage Effluent Quality Targets for Dust Suppression and Irrigation</b> and locations specified in <b>Table C1 - Mine-affected water release points, sources and receiving waters</b> . |
| <b>G6</b> | The holder of the environmental authority must ensure that irrigation of effluent is carried out in such a manner that prevents and or minimises environmental harm.  |
| <b>G7</b> | The holder of this environmental authority is authorised to accept treated wastewater from the Wetalla Wastewater Reclamation Facility.   |
| <b>G8</b> | Sewage effluent used for dust suppression or irrigation must not exceed sewage effluent release limits defined in <b>Table G1 - Sewage Effluent Quality Targets for Dust Suppression and Irrigation</b> .   |

## Agency interest: Land and Rehabilitation

| Condition number | Condition |
|------------------|-----------|
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|            |   |
|------------|---|
| <b>H1</b>  | <p><b>Buffer Zone</b></p> <p>The holder of the environmental authority must not cause any disturbance within 50 metres of the high bank of Lagoon Creek (buffer zone) as shown on <b>Figure 3 - Lagoon Creek, buffer and levee</b> unless in accordance with Condition <b>H2</b> and <b>H3</b>.</p>   |
| <b>H2</b>  | <p>The holder of the environmental authority is authorised to construct and maintain a flood protection levee and access road for inspection purposes, with the tow of the levee being no closer than 50 metres from the high bank of Lagoon Creek as shown on <b>Figure 3 - Lagoon Creek, buffer and levee</b></p>   |
| <b>H3</b>  | <p>The holder of the environmental authority is authorised to access the 50 metre buffer zone as shown on <b>Figure 3 - Lagoon Creek, buffer and levee</b>, for the purposes of maintaining the integrity of the flood protection levee, riparian conservation and weed management purposes.</p>  |
| <b>H4</b>  | <p>The flood protection levee must be designed and inspected by a suitably qualified and experienced person. The final design level of the levee crest must be above the predicted 1,000 year ARI event flood level.</p>  |
| <b>H5</b>  | <p>Any section of the outside face of the levee must be treated with cover material and grass seeded (unless rock armoured) within three months of completion of the earthworks for that section of the outside face of the levee.</p>  |
| <b>H6</b>  | <p>The condition of the levee must at a minimum be assessed:</p> <ol style="list-style-type: none"> <li>a) by the environmental authority holder <b>within 1 week</b> of any storm of such intensity that greater than 25mm of rain falls in less than 3 hours; and</li> <li>b) by a suitably qualified and experienced person at least once per year between the months of May and October inclusive (i.e. during the 'dry' season and before the onset of the 'wet' season).</li> </ol>   |
| <b>H7</b>  | <p>Remedial works identified as necessary during assessments conducted under <b>Condition H6</b> must be commenced <b>within 30 days</b> unless delayed by inclement weather.</p>   |
| <b>H8</b>  | <p>Any actions and incidents on site that may impact upon the integrity of the levee bank must be notified to the administering authority in accordance with <b>Condition H4</b>.</p>   |
| <b>H9</b>  | <p>For Stage 3 New Acland Mine Project, land disturbed by mining must be rehabilitated in accordance with <b>Table H4: Rehabilitation Requirements Stage 3 New Acland Mine Project</b>, <b>Table H5: Rehabilitation Acceptance Criteria - Grazing Lands Stage 3 New Acland Mine Project</b> and <b>Table H6: Rehabilitation Acceptance Criteria - Treed Areas Stage 3 New Acland Mine Project</b>.</p>  |
| <b>H10</b> | <p><b>Final Land Use and Rehabilitation Plan</b></p> <p>Within twelve months <b>upon the grant of ML50232 and ML700002</b> the holder of this environmental authority must develop and implement a Final Land Use and Rehabilitation Plan to ensure that all areas disturbed by mining activities will be suitably rehabilitated in accordance with <b>Table H1 – Final Land Use and Rehabilitation Approval Schedule – ML50170 and ML50216</b>, <b>Table H2 - Landform design criteria for New Acland Coal Mine – ML50170 and ML50216</b>,</p> |

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|            |  |
|------------|--|
|            | <p><b>Table H3: Residual Void Design – ML50170 and ML50216, Table H4: Rehabilitation Requirements Stage 3 New Acland Mine Project, Table H5: Rehabilitation Acceptance Criteria — Grazing Lands Stage 3 New Acland Mine Project and Table H6: Rehabilitation Acceptance Criteria — Treed Areas Stage 3 New Acland Mine Project.</b></p> <p>The Plan must include, but is not limited to the following:</p> <ul style="list-style-type: none"> <li>a) disturbance type;</li> <li>b) disturbance area;</li> <li>c) pre and post mine land descriptions;</li> <li>d) pre and post mine land capability;</li> <li>e) analogue site(s) identification;</li> <li>f) a description of rehabilitation management techniques incorporating works and monitoring programs and timetables;</li> <li>g) indicators for success; and</li> <li>h) keeping of appropriate records or rehabilitation measures implemented including taking of photographs demonstrative of rehabilitation achieved and the preparation of annual rehabilitation progress reports.</li> </ul> <p><b>NOTE:</b> The Final Land Use and Rehabilitation Plan is to be managed through the Plan of Operations.</p> |
| <b>H11</b> | <p>Rehabilitation of disturbed areas must achieve the following:</p> <ul style="list-style-type: none"> <li>a) For mining areas other than Stage 3 disturbance areas, and in locations shown in Figure X1: <ul style="list-style-type: none"> <li>i. 553ha of Grazing Land Suitability Class 2;</li> <li>ii. 29ha of Grazing Land Suitability Class 3;</li> <li>iii. 824ha of Grazing Land Suitability Class 4; and</li> <li>iv. 63ha of Grazing Land Suitability Class 5.</li> </ul> </li> <li>b) For Stage 3 disturbance areas and in locations shown in <b>Figure X2</b>: <ul style="list-style-type: none"> <li>i. 541ha of Cropping Land Suitability Class 3; and</li> <li>ii. 471ha of Grazing Land Suitability Class 4.</li> </ul> </li> <li>c) For the 3 mined voids as part of stage 3, as per the requirements of <b>Table X1</b>.</li> </ul>  |

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New Table Ha

| Location / Mined Void Name | Area  | Rehabilitation Outcome                             |
|----------------------------|-------|--|
| Manning Vale West Pit      | 163ha | Depressed landform and grazing suitability Class 4 |
| Manning Vale East Pit      | 154ha | Depressed landform and grazing suitability Class 4 |
| Willeroo Pit               | 213ha | Depressed landform and grazing suitability Class 4 |

Table H1: Final Land Use and Rehabilitation Approval Schedule — ML 50170 and ML50216

|  | Disturbance Type       |               |                        |                  |                            |                    |                                |
|--|------------------------|---------------|------------------------|------------------|----------------------------|--------------------|--------------------------------|
|  | Residual Voids         | Tailings Dams | Recontoured spoil area | Waste Rock Dumps | Infrastructure & ROM Areas | Roads and Tracks   | Water Supply and Sediment Dams |
| <b>Tenure ID</b>                                 | ML50216                | ML50170       | ML50170<br>ML50216     | ML50216          | ML50170                    | ML50170<br>ML50216 | ML50216                        |
| <b>Projective Surface Area (ha)</b>              | 55                     | 70            | 740                    | 100              | 5                          | 5                  | 40                             |
| <b>Post mine land use</b>                        | Possible water storage | Grazing       | Grazing                | Grazing          | Grazing                    | Grazing            | Possible water storage         |
| <b>Post mine land suitability classification</b> | 5                      | 5             | 3-4                    | 4                | 4                          | 4                  | 5                              |

**NOTE:** The Final Land Use and Rehabilitation Plan will be managed through the Plan of Operations.

Table H2: Landform design criteria for New Acland Coal Mine— ML 50170 and ML50216

| Disturbance Type           | Slope Range (%)     | Projective Surface Area (ha) |
|----------------------------|---------------------|------------------------------|
| Residual Voids (high wall) | 0 - 214 % or 65°    | 55                           |
| Residual Voids (low wall)  | 0 - 100 % or 45°    |                              |
| Tailings Dam Top           | 0 - 20 % or 11.5°*  | 60                           |
| Tailings Dam Wall          | 0 - 20 % or 11.5° * | 10                           |
| Recontoured Spoil Area     | 0 - 20 % or 11.5° * | 740                          |

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| <b>Disturbance Type</b>      | <b>Slope Range (%)</b> | <b>Projective Surface Area (ha)</b> |
|------------------------------|------------------------|-------------------------------------|
| Waste Rock Dumps             | 0 - 20 % or 11.5° *    | 100                                 |
| Infrastructure and ROM areas | 0 - 18% or 10°         | 5                                   |
| Roads and Tracks             | 0 - 10 % or 5.7°       | 5                                   |

**NOTE:** \*= The slope depends on the vertical height and slope length. See Landform Acceptance Criteria.

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Table H3: Residual Void Design— ML 50170 and ML50216

| Void Identification        | Void wall - competent rock slope (%) | Void wall - incompetent rock slope (%) | Void maximum surface area (ha) |
|----------------------------|--------------------------------------|--|--------------------------------|
| Central Pit/South Pit Void | 65° or 214%                          | 45° or 100%                            | 55                             |

Table H4: Rehabilitation Requirements Stage 3 New Acland Mine Project

| Mine Domain               | Rehabilitation Goal | Rehabilitation Objectives   | Indicators   | Completion Criteria  |
|---------------------------|---------------------|---|--|--|
| Solid Waste Rock Disposal | Safe                | Site safe for humans and animals  | Structurally safe and shallow slopes (geotechnically stable). No hazardous materials (geochemically benign).   | Monitoring / observation demonstrates safe site  |
|                           | Non-polluting       | No environmental harm attributed to adverse chemical conditions within the waste rock dumps | Minimise erosion (to at least <10t/ha/yr) through selective placement of mine waste, adequate vegetation cover. Runoff and seepage does not cause environmental harm   | Suitable for low intensity grazing. Runoff and discharge water (including seepage) meets specified limits. |
|                           | Stable              | Minimise erosion  | Wastes selectively placed above and below original ground level to agreed slopes. Adequate ground cover established to control erosion. Runoff control measures (contour banks, etc) effective in controlling erosion. | Suitable for low intensity grazing   |
|                           | Self-sustaining     | To return to agreed grazing land capability   | Slope and other landform design criteria achieved. Establish adequate vegetation cover.  | Refer <b>Table H5</b> and <b>Table H6</b>  |
| Tailings Dams             | Safe                | Site safe for humans and animals  | Structurally safe (geotechnically stable). Adequate capping. Accessibility to voids is permanently removed.  | Monitoring / observation demonstrates safe site  |
|                           | Non-polluting       | Acid mine drainage will not cause environmental harm  | Adequately capped. Minimise erosion through adequate vegetation cover to less than 10t/ha/yr. Runoff and seepage controlled by water management.   | Monitoring meeting release limits. Suitable for low intensity grazing                                      |
|                           | Stable              | Minimise erosion  | Stored in both pits below natural surface level and in dams above  | Monitoring demonstrates  |

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| Mine Domain                 | Rehabilitation Goal | Rehabilitation Objectives  | Indicators  | Completion Criteria   |
|-----------------------------|---------------------|--|---|---|
|                             |                     |  | natural surface. Establish adequate vegetation cover.   | revegetation success. No structural erosion present. Suitable for low intensity grazing |
|                             | Self-sustaining     | To return to agreed grazing land capability  | Monitoring demonstrates successful revegetation.  | Refer <b>Table H5</b> and <b>Table H6</b>   |
| Mine Infrastructure Areas   | Safe                | Site safe for humans and animals   | Hazardous materials removed.  | Monitoring / observation demonstrates safe site   |
|                             | Non-polluting       | Undertake contaminated land assessment.  | Remediate contamination so that runoff and seepage are of good quality.                                     | Monitoring meeting release limits.  |
|                             | Stable              | Minimise erosion   | Remove infrastructure or allow continued use of useful infrastructure. Establish adequate vegetation cover. | Slope will be a maximum of 17° (30%)  |
|                             | Self-sustaining     | To return to agreed grazing land capability  | Return to previous use (grazing). Establish adequate groundcover.   | Refer <b>Table H5</b> and <b>Table H6</b>   |
| Linear Infrastructure areas | Safe                | Site safe for humans and animals   | Structurally safe (geotechnically stable).  | Monitoring / observation demonstrates safe site   |
|                             | Non-polluting       | No environmental harm attributed to adverse chemical conditions within the rehabilitation areas. | Runoff and seepage controlled by water management (e.g. dams).  | Monitoring meeting release limits.  |
|                             | Stable              | Minimise erosion   | Remove infrastructure, rip reshape and revegetate or allow continued use of useful infrastructure.          | Suitable for low intensity grazing  |
|                             | Self-sustaining     | To return to agreed grazing land capability  | Remove infrastructure or allow continued use of useful infrastructure. Establish adequate vegetation cover. | Refer <b>Table H5</b> and <b>Table H6</b>   |

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**Table H5: Rehabilitation Acceptance Criteria Stage 3 New Acland Mine Project — Grazing Lands**

| Land Suitability Class | Acceptance Criteria — Grazing Land |                                       |   |             |                         |                             |                |
|------------------------|------------------------------------|---------------------------------------|---|-------------|-------------------------|-----------------------------|----------------|
|                        | Non-polluting                      | Stability and Sustainability Land Use |   |             |                         |                             |                |
|                        | Active Rill / Gully Erosion        | Vegetation Cover                      | Native and Exotic Grass Species Diversity (spp./ha) | Slopes      | Geo-technical Stability | Active Rill / Gully Erosion | Declared Weeds |
| 2 to 5                 | Absence (<10t/ha/yr)               | > 50%                                 | ≥4  | Maximum 17° | stable                  | absence                     | absence        |

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Table 15 Rehabilitation Acceptance Criteria – Grazing Land

| Indicator                                       | Acceptance Criteria  |
|---|--|
| <b>Ecological</b>                               |  |
| Vegetation cover                                | ≥70%   |
| Grass species diversity                         | ≥4 pasture species   |
| Prohibited or Restrictive invasive plants (Qld) | Absent   |
| <b>Geomorphological</b>                         |  |
| Slope <sup>1</sup>                              | 17° (maximum)  |
| Active rill/gully erosion <sup>2</sup>          | Rill/gully erosion will be managed to be consistent with surrounding in-situ landforms.<br>Identification and repair of areas of concern (e.g. large scale rill/gully erosion)                                 |
| Geotechnical stability                          | Stable surface, no subsidence  |
| <b>Physical</b>                                 |  |
| Field texture                                   | Sandy loam to light clay (rigid soils i.e. duplex soils)<br>Clay loam to heavy clay (non-rigid soils i.e. Vertosols)   |
| Bulk density (BD)                               | 1.1 – 1.8 gm/cm <sup>3</sup>   |
| Emerson dispersion test                         | Class 2, 3, 4, 5 or 6  |
| Depth of effective root zone (ERZ)              | 250 – 1000 millimetres   |
| <b>Chemical</b>                                 |  |
| pH <sub>Ca</sub>                                | pH <sub>w</sub> 6.5 – 9.5, pH <sub>Ca</sub> 6.0 – 8.0  |
| Electrical Conductivity (EC/se)                 | <b>EC<sub>1:5w</sub></b><br>120 – 240 µS/cm for low salinity in sandy soils<br>90 – 300 µS/cm for low salinity in clay soils<br><b>EC<sub>se</sub></b> 950-1900 µS/cm for low – moderate salinity in all soils |
| Cation Exchange Capacity (CEC)                  | 9 – 45 meq/100 gm  |
| Exchangeable Sodium Percentage (ESP)            | <10  |
| Total metals –Cu, Zn                            | <i>Risk Based Ecological Levels</i><br>Zn – 190 mg/kg, Cu – 90 mg/kg<br><i>Typical Background Levels</i><br>Cu – 3-412 mg/kg, Zn – 5-92mg/kg,  |
| Total Organic Carbon (TOC)                      | >1% for total organic carbon   |

1. This criterion has been developed to meet the standards set in the EA (*Schedule H Table H5*). Maximum slope will be 17° as authorised but consideration will be given to the lower slope angles.
2. Should active rill/gully erosion be identified, erosive soil loss will be estimated using RULSE.

Table H6: Rehabilitation Acceptance Criteria Stage 3 New Acland Mine Project — Treed Areas

| Land Suitability Class | Acceptance Criteria — Grazing Land Treed Areas |                                    |  |   |        |                         |                             |
|------------------------|--|------------------------------------|--|---|--------|-------------------------|-----------------------------|
|                        | Non-polluting                                  | Stability and Sustainable Land Use |  |   |        |                         |                             |
|                        |  | Active Rill / Gully Erosion        | Vegetation Cover (including tree / shrub canopy) | Native Tree / Shrub & Native / Exotic Grass Species | Slopes | Geo-technical Stability | Active Rill / Gully Erosion |
|                        |  |                                    |  |   |        |                         |                             |

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|        |                                    |         |   |                       |        |         |         |
|--------|------------------------------------|---------|---|-----------------------|--------|---------|---------|
|        |                                    |         | Diversity<br>(spp./ha)  |                       |        |         |         |
| 2 to 5 | Absence<br>( $<10\text{t/ha/yr}$ ) | $>50\%$ | Eucalyptus<br>spp. $\geq 2$<br><br>Acacia<br>spp. $\geq 2$<br><br>Other tree<br>/shrub<br>spp. $\geq 2$<br><br>Grass $\geq 3$ | Maximum<br>$17^\circ$ | stable | absence | absence |

Table 16 Rehabilitation Acceptance Criteria – Treed Areas

| Land<br>Suitability<br>Class | Acceptance Criteria                |                                    |  |                       |                        |   |   |
|------------------------------|------------------------------------|------------------------------------|--|-----------------------|------------------------|---|---|
|                              | Non-Polluting                      | Stability and Sustainable Land Use |  |                       |                        |   |   |
|                              | Active Rill/Gully Erosion          | Vegetation Cover                   | Native & Exotic Grass Species <sup>1</sup>   | Slope <sup>2</sup>    | Geotechnical Stability | Active Rill/Gully Erosion   | Prohibited or Restrictive Invasive Plants (Qld) |
| 2-5                          | Absence<br>( $<10\text{t/ha/yr}$ ) | $\geq 50\%$                        | Eucalyptus sp. $\geq 2$ ;<br>Acacia sp. $\geq 2$ ;<br>Other tree/shrub sp.<br>$\geq 2$ ;<br>Grass $\geq 3$ | Maximum<br>$17^\circ$ | Stable                 | Rill/gully erosion will be managed to be consistent with surrounding in-situ landforms. Identification and repair of areas of concern (e.g. large scale rill/gully) | Absence   |

1. The majority of the rehabilitated land will be returned to grazing with exotic pastures established. Where pockets of trees/shrubs have been established the diversity criteria will apply taking into account the limited diversity of some remnant communities near the Mine.
2. This criterion has been developed to meet the standards set in the EA (*Schedule H Table H6*). Maximum slope will be  $17^\circ$  as authorised but consideration will be given to the lower slope angles

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| <b>H11</b> | All areas significantly disturbed by mining activities must be rehabilitated in accordance with the <del>Mine Closure Plan outlined in Condition H13</del> Final Land Use and Rehabilitation Plan.   |
| <b>H12</b> | Rehabilitation must commence progressively as land becomes available for rehabilitation and is no longer being mined. <del>in accordance with the plan of operations.</del>  |
| <b>H13</b> | <b>Closure and post closure</b><br>The environmental authority holder must submit a Mine Closure Plan to the administering authority at least <b>five years prior</b> to the surrender of this environmental authority.  |
| <b>H14</b> | When the deposition of tailings ceases, the holder of this Environmental Authority must install a final cover system to the Tailings Storage Facility, which effectively minimises:<br><br>a) infiltration of water into the Tailings Storage Facility; and<br>b) the likelihood of any erosion occurring to either the final cover system, dumped spoil material or deposited tailings.   |
| <b>H15</b> | The final cover system must include an inert layer to reduce infiltration and an upper/final layer of earthen material that is capable of sustaining plant growth.   |
| <b>H16</b> | <b>Sustainable final land use outcomes</b><br>Areas that are to be progressively rehabilitated must comply with, but not be limited to, the following outcomes:<br><br>a) All areas disturbed by mining activities must be rehabilitated to the landform design criteria defined in the Final Land Use and Rehabilitation Plan required by <b>Conditions H10 to H13</b> ; and<br>b) The final landforms must be stable with erosion rates comparable to a suitable analogue site.  |
| <b>H17</b> | <b>Grazing pasture outcome for ML50170 and ML50216</b><br>Areas which are to be progressively rehabilitated to grazing pasture must comply with the following outcomes;<br><br>a) generate a self-sustaining vegetation with projective cover, species composition and species distribution comparable with that of analogue sites to be determined by the study detailed in <b>Condition H10</b> e.g. planting local native grass and shrub species where possible. These vegetation species must be listed in the Final Land Use and Rehabilitation Plan;<br>b) all areas disturbed by mining activities must be rehabilitated to the landform design criteria defined in <b>Table H2 Landform design criteria for New Acland Coal Mine— ML50170 and ML50216</b> ;<br>c) a measure of productivity (e.g. sustainable dry matter production, stock live weight gain) are comparable to the selected analogue sites detailed in <b>Condition H18</b> . |
| <b>H18</b> | Complete an investigation into rehabilitation of disturbed areas and submit a report to the administering authority proposing acceptance criteria to meet the outcomes in the <del>Condition H17 and landform design criteria in Table H2 Landform design criteria for New Acland Coal Mine— ML50170 and ML50216</del> Final Land Use and Rehabilitation Plan within <b>twelve months</b> of the issue of the Environmental Authority.   |

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|------------|--|
| <b>H19</b> | <p><b>Residual void outcome</b></p> <p>Residual voids must comply with the following outcomes:</p> <p>a) residual voids must not cause any serious environmental harm to land, surface waters or any recognised ground water aquifer, other than the environmental harm constituted by the existence of the residual void itself, and subject to any other condition within this Environmental Authority; and</p> <p>b) residual voids must comply with <b>Table H3 - Residual Void Design—ML50170 and ML50216</b>.</p>  |
| <b>H20</b> | <p>Complete an investigation into residual voids and submit the findings in the Mine Closure Plan outlined by <b>Condition H13</b> to the administering authority proposing acceptance criteria to meet the outcomes in Condition <b>H19</b> and landform design criteria in <b>Table H3 — Residual Void Design— ML50170 and ML50216</b>.</p>  |
| <b>H21</b> | <p>All areas within the mining lease will be managed to reduce the spread of declared plants including both disturbed and undisturbed areas.</p>   |
| <b>H22</b> | <p><b>Topsoil</b></p> <p>a) Topsoil must be stripped and stockpiled in accordance with the approved Topsoil Management Plan; and</p> <p><del>The environmental authority holder must ensure that topsoil is removed and stockpiled prior to carrying out any disturbance activities such that topsoil must be strategically stripped ahead of mining activities, including the establishment of spoil dump areas; and,</del></p> <p>b) Topsoil must not be disposed of in a pit or otherwise sterilised from reuse.</p>  |
| <b>H23</b> | <p><b>Contaminated land</b></p> <p>Before applying for surrender of a mining lease, the holder must (if applicable) provide to the administering authority a site investigation report under the Act, in relation to any part of the mining lease which has been used for notifiable activities or which the holder is aware is likely to be contaminated land, and also carry out any further work that is required as a result of that report to ensure that the land is suitable for its final land use.</p>  |
| <b>H24</b> | <p>Before applying for progressive rehabilitation certification for an area, the holder must (if applicable) provide to the administering authority a site investigation report under the Act, in relation to any part of the area the subject of the application which has been used for notifiable activities or which the holder is aware is likely to be contaminated land, and also carry out any further work that is required as a result of that report to ensure that the land is suitable for its final land use in accordance with <b>Condition H910</b>.</p> |
| <b>H25</b> | <p>Minimise the potential for contamination of land by hazardous contaminants.</p>   |
| <b>H26</b> | <p><b>Impacted land</b></p> <p>The holder of the environmental authority must provide the approved report required by <b>Imposed Condition 9</b>, of Appendix 1, of the CG's report, to the administering authority, within <b>20 business days</b> of it being approved.</p>  |
| <b>H27</b> | <p><del>The holder of the environmental authority must provide a report demonstrating fulfilment of the requirements of <b>Imposed Condition 9(i) — (k)</b> in the CG's report, to the administering authority with any surrender application.</del></p>   |

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| <b>H28</b> | <p><b>Land resource survey</b></p> <p>The holder of the environmental authority must provide the approved report required by <b>Imposed Condition 6</b>, of Appendix 1, of the CG's report, to the administering authority, within <b>20 business days</b> of approval.</p>                                     |
| <b>H29</b> | <p><b>Rehabilitation of disturbed land</b></p> <p>The holder of the environmental authority must provide the approved rehabilitation success criteria required by <b>Imposed Condition 7</b>, of Appendix 1, of the CG's report, to the administering authority within <b>20 business days</b> of approval.</p> |

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| Agency interest: Biodiversity |  |
|-------------------------------|--|
| Condition number              | Condition  |
| I1                            | The holder of the environmental authority must ensure that staff induction and environmental awareness programs include reference to <i>Anomalopus mackayi</i> (Five-clawed Worm-skink, Long-legged Worm-skink) and <i>Tympanocryptis pinguicollis</i> (Grassland Earless Dragon, South-eastern Lined Earless Dragon) to ensure that any individuals that might be present in the project area are identified and reported to the mine site environmental officer for recovery and release into suitable habitat.  |
| I2                            | <p>The holder of this Environmental Authority must develop and implement a Conservation Management Plan for the riparian area of Lagoon Creek and existing stands of regional ecosystems RE11.8.5 and RE11.8.3 located on Bottle Tree Hill and submit the Plan to the Administering Authority and the Department of Natural Resources, Mines and Energy within twelve months of the date this environmental authority takes effect. The Plan must for the two proposed conservation areas (Lagoon Creek and Bottle Tree Hill):</p> <ol style="list-style-type: none"> <li>ensure the combined surface area to be protected and enhanced is no less than the surface area of the regional ecosystems proposed to be cleared by mining activities on Mining Leases 50170 and 50216;</li> <li>develop appropriate conservation/rehabilitation objectives;</li> <li>outline suitable conservation/rehabilitation techniques (including those areas where local native plant species/communities are to be re-established and/or enhanced);</li> <li>develop an action plan/rehabilitation schedule for the planned conservation/rehabilitation activities;</li> <li>propose specific conservation/rehabilitation acceptance criteria (including those areas where local native plant species/communities are re-established and/or enhanced);</li> <li>detail a suitable monitoring program to quantify conservation/rehabilitation success (including those areas where local native plant species/communities are re-established and/or enhanced); and</li> <li>propose appropriate remedial actions for conservation/rehabilitation areas not achieving the required conservation/rehabilitation objectives.</li> </ol> |
| I3                            | <p><b>Biodiversity offsets</b></p> <p>Significant residual impacts to prescribed matters of state environmental significance must not exceed the maximum authorised residual impact area listed for that matter in <b>Table I1 - Maximum authorised impacts on matters of state environmental significance</b> and shown in <b>Figure 4 — Impact on vegetation and habitat</b>.</p> <p><b>Note:</b> Deemed conditions in Sections 18, 22, 24 and 25 of the <i>Environmental Offsets Act 2014</i> are taken to be conditions of this authority.</p>   |
| I4                            | The holder of the environmental authority must provide an environmental offset for the following maximum significant residual impacts on matters of state environmental significance in accordance with the requirements of the <i>Environmental Offsets Act 2014</i> (including deemed conditions), the <i>Environmental Offsets Regulation 2014</i> and the <i>Queensland Environmental Offsets Policy</i> .   |

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Table 11 — Maximum authorised impacts on matters of state environmental significance (MSES)

| <u>Applicable MSES</u>   | <u>Status</u>     | <u>Maximum area of residual impact (ha)</u>                                       | <u>Environmental offset required</u> |
|--|-------------------|---|--------------------------------------|
| <b><u>Threatened REs listed under the Vegetation Management Act 1999</u></b>         |                   |   |                                      |
| 11.3.1#  | Endangered        | <u>2.58</u>   | Yes                                  |
| 11.9.5#  | Endangered        | <u>24.53</u>  | <u>Yes</u>                           |
| 11.3.2   | Of concern        | <u>4.63</u>   | Yes                                  |
| 11.3.17  | Of concern        | <u>5.11</u>   | Yes                                  |
| 11.8.11#   | Of concern        | <u>34.65</u>  | Yes                                  |
| 11.9.10  | Of concern        | <u>14.36</u>  | Yes                                  |
| <u>11.9.7</u>  | <u>Of concern</u> | <u>3.24</u>   | <u>Yes</u>                           |
| 11.9.13  | Of concern        | <u>3.62</u>   | Yes                                  |
| <u>Watercourse vegetation</u><br>(11.8.11)   | <u>Of concern</u> | <u>6.38</u>   | <u>Yes</u>                           |
| <b><u>Threatened Fauna Species listed under the Nature Conservation Act 1992</u></b> |                   |   |                                      |
| Koala<br><i>Phascolarctos cinereus</i>   | <u>Vulnerable</u> | <u>30.96 of remnant vegetation and an additional 18.40 of NJKHTs*<sup>^</sup></u> | Yes                                  |
| <b><u>Threatened Flora Species listed under the Nature Conservation Act 1992</u></b> |                   |   |                                      |
| Belson's Panic#<br><i>Homopholis belsoni</i>   | Endangered        | 70.8  | Yes                                  |
| <u>Austral Cornflower#</u><br>( <i>Rhaponticum austral</i> )                         | <u>Vulnerable</u> | <u>0.7</u>  | <u>Yes</u>                           |

# These prescribed environmental values duplicate MNES values and, in the event of an Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) decision on the project, offsets for these matters may be conditioned for by the Commonwealth. Further, any offsets conditioned by the Commonwealth are likely to address offsetting for these matters as required by this environmental authority.

\* NJKHTs = Non-Juvenile Koala Habitat Trees.

<sup>^</sup> Based on the average tree density of 250 trees per hectare for koala habitat in SEQ used in the Queensland Environmental Offsets Policy (v1.8).

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| 15  | Residual impacts are not authorised on any Matters of State Environmental Significance not identified in <b>Table I1 — Maximum authorised impacts on matters of state environmental significance</b>  |
| 16  | <p><b>Environmental Offset Strategy (EOS)</b></p> <p>The environmental authority holder must provide the approved environmental offset strategy required by Imposed Condition 13 of the CG's report, to the administering authority within 20 business days of its being approved.</p>  |
| 17  | <p><b>Pre-clearance fauna and flora surveys</b></p> <p>Prior to commencement of any project construction activities, the environmental authority holder must conduct pre-clearance ecological surveys of areas to be impacted, consistent with:</p> <ul style="list-style-type: none"> <li>a) Queensland state government survey guidelines;</li> <li>b) Requirements of the <i>Nature Conservation Act 1992</i>; and</li> <li>c) Australian government threatened species guidelines.</li> </ul> |
| 18  | <p>The surveys must be sufficient to identify the extent to which the following will be unavoidably impacted by the project:</p> <ul style="list-style-type: none"> <li>a) Protected wildlife listed under the <i>Nature Conservation Act 1992</i>;</li> <li>b) Matters of state environmental significance (MSES) as defined by the State Planning Policy; and</li> <li>c) MNES as listed under the EPBC Act</li> </ul>  |
| 19  | <p>The surveys must include areas of potential foraging, roosting or nesting habitat for the painted honeyeater (<i>Grantiella picta</i>). If the painted honeyeater is found during pre-clearance surveys, then any significant impacts on its habitat may require additional offsets in accordance with the EOS for the project.</p>  |
| 110 | <p>If protected plants are found during pre-clearance surveys, then impacts may require a permit under the <i>Nature Conservation Act 1992</i> and offsets under the <i>Environmental Offsets Act 2014</i>.</p>   |
| 111 | <p>Should additional MSES species and communities be located that were not previously identified during field surveys, the development of management plans and/or additional offsets may be required to address any significant residual impacts for matters of state environmental significance in accordance with the EOS for the project.</p>  |
| 112 | <p>Notification of the discovery of additional protected plants or MSES species and communities will be impacted is to be provided to the administering authority within five business days of the discovery. The proponent is required to propose how the species is to be managed and to seek advice from the administering authority on the undertaking.</p>   |
| 113 | <p>Survey results must be included in an updated EOS for the project.</p>   |
| 114 | <p>Surveys must include area of potential habitat for the vulnerable pale imperial hairstreak butterfly — <i>Jalmenus eubulus</i>. If the pale imperial hairstreak is found during pre-clearance surveys, then any significant impacts on its habitat may require additional offsets in accordance with the EOS for the project.</p>  |

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| <b>I15</b> | <p><b>Lagoon Creek Conservation Zone Management Plan (CZMP)</b></p> <p>The holder of the environmental authority holder must provide the <del>approved</del> Lagoon Creek Conservation Zone Management Plan, which is in accordance with <b>Imposed Condition 15</b> of the CG's report, to the administering authority, within 20 business days of it being approved.</p> |
| <b>I16</b> | <p><b>Koala Species Management Plan (KSMP)</b></p> <p>The holder of the environmental authority holder must provide the approved Koala species management plan, which is in accordance with <b>Imposed Condition 16</b> of the CG's report, to the administering authority, within 20 business days of it being approved.</p>  |

| <b>Agency interest: Regulated Structures</b> |   |
|--|---|
| <b>Condition number</b>                      | <b>Condition</b>  |
| <b>J1</b>                                    | <p><b>Regulated Dams and Levees</b></p> <p>The consequence category of any structure must be assessed by a suitably <del>e</del>-qualified and experienced person in accordance with the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933) at the following times:</p> <ul style="list-style-type: none"> <li>a) Prior to the design and construction of the structure, if it is not an existing structure; or</li> <li><del>b) If it is an existing structure, prior to the adoption of this schedule; or</del></li> <li>c) Prior to any change in its purpose or the nature of its stored contents.</li> </ul> |
| <b>J2</b>                                    | A consequence assessment report and certification must be prepared for each structure assessed and the report may include a consequence for more than one structure.  |
| <b>J3</b>                                    | Certification must be provided by the suitably qualified and experienced person who undertook the assessment, in the form set out in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933).  |
| <b>J4</b>                                    | <p><b>Design and construction of a regulated structure</b></p> <p><b>Conditions J5 to J9</b> inclusive do not apply to existing structures which were operational prior to this environmental authority taking effect.</p>  |
| <b>J5</b>                                    | All regulated structures must be designed by and constructed under the supervision of a suitable qualified and experienced person in accordance with the requirements of the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933).  |
| <b>J6</b>                                    | <p>Construction of a regulated structure is prohibited unless:</p> <ul style="list-style-type: none"> <li>a) the holder has submitted a consequence category assessment report and certification to the administering authority <del>that has been certified by a suitably qualified person for the design and the design plan and the associated operating procedures in compliance with the relevant condition of this authority;</del> and</li> </ul>  |

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|           | b) certification for the design, design plan and the associated operating procedures have been certified by a suitably qualified and experienced person in compliance with the relevant condition of this authority.   |
| <b>J7</b> | Certification must be provided by the suitable qualified and experienced person who oversees the preparation of the design plan set out in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933), and must be recorded in the <del>Regulated Dams/Levees register</del> Register of Regulated Structures.   |
| <b>J8</b> | Regulated structures must: <ul style="list-style-type: none"> <li>a) be designed and constructed in <del>accordance with and conform to the requirements of</del> compliance with the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i>(ESR/2016/1933);</li> <li>b) be designed and constructed with due consideration given to ensuring that the design integrity would not be compromised on account of: <ul style="list-style-type: none"> <li>i. floodwaters from entering <del>the</del> a regulated <del>dam</del> structure from any watercourse or drainage line; and</li> <li>ii. wall failure due to erosion by floodwaters arising from any watercourse or drainage line;</li> </ul> </li> <li>c) <del>(only for regulated dams associated with a failure to contain seepage)</del> have the floor and sides of the <del>dam</del> structure designed and constructed to prevent or minimise the passage of the wetting front and any entrained contaminants through either the floor or sides of the <del>dam</del> structure during the operational life of the <del>dam</del> structure and for any period of decommissioning and rehabilitation of the <del>dam</del> structure .</li> </ul> |
| <b>J9</b> | Certification by the suitable qualified and experienced person who supervises the construction must be submitted to the administering authority on the completion of construction of the regulated structure and state that: <ul style="list-style-type: none"> <li>a) The 'as constructed' drawings and specifications meet the original intent of the design plan for that regulated structure; and</li> <li>b) Construction of the regulated structure is in accordance with the design plan.</li> </ul>  |

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| <b>J10</b> | <p><b>Operation of a regulated structure</b></p> <p>Operation of a regulated structure, except for an existing structure, is prohibited unless the holder has submitted to the administering authority in respect of regulated structures, all of the following:</p> <ul style="list-style-type: none"> <li>a) One paper copy and one electronic copy of the design plan and certification of the 'design plan' in accordance with <b>Condition J6</b>; <del>and</del></li> <li>b) A set of 'as constructed' drawings and specifications; <del>and</del></li> <li>c) Certification of those 'as constructed drawings and specifications' in accordance with <b>Condition J69</b>; <del>and</del></li> <li>d) Where the regulated structure is to be managed as part of an integrated containment system for the purpose of sharing the DSA volume across the system, a copy of the certified system design plan; <del>and</del></li> <li>e) The requirements of this authority relating to the construction of the regulated structure have been met; <del>and</del></li> <li>f) The holder has entered the details required under this authority into a Register of Regulated <del>Dams</del> Structures; and</li> <li>g) There is a current operational plan for the regulated structures.</li> </ul> |
| <b>J11</b> | <p>For existing structures that are regulated structures:</p> <ul style="list-style-type: none"> <li>a) Where the existing structure that is a regulated structure is to be managed as part of an integrated containment system for the purposes of sharing DSA volume across the system, the holder must submit to the administering authority within <b>12 months</b> of construction of the structure <del>of the commencement of this condition</del>, a copy of the certified system design plan including that system structure; and</li> <li>b) There must be a current operational plan for the existing structures.</li> </ul>   |
| <b>J12</b> | <p>Each regulated structure must be maintained and operated for the duration of its operational life until decommissioned and rehabilitated in a manner that is consistent with the current operational plan and if applicable the current design plan and associated certified 'as constructed' drawings.</p>  |
| <b>J13</b> | <p><b>Mandatory reporting level</b></p> <p><b>Conditions J14 to J17</b> inclusive apply to Regulated <del>Dams</del> Structures which have not been certified as low consequence category for 'failure to contain — overtopping'.</p>   |
| <b>J14</b> | <p>The Mandatory Reporting Level (the MRL) must be marked on a regulated dam in such a way that during routine inspections of the dam it is clearly observable.</p>   |
| <b>J15</b> | <p>The holder must, as soon as practical and <b>within forty-eight (48) hours</b> of becoming aware, notify the administering authority when the level of the contents of a regulated dam reaches the MRL.</p>  |
| <b>J16</b> | <p>The holder must, immediately on becoming aware that the MRL has been reached, act to prevent the occurrence on any unauthorised discharges from the regulated dam.</p>   |
| <b>J17</b> | <p>The holder must record any changes to the MRL in the Register of Regulated Structures.</p>   |

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| <b>J18</b> | <p><b>Design storage allowance</b></p> <p>The holder must assess the performance of each regulated dam or linked containment system over the preceding November to May period based on actual observations of the available storage in each regulated dam or linked containment system taken <b>prior to 1 July of each year</b>.</p>   |
| <b>J19</b> | <p><b>By 1 November of each year</b>, storage capacity must be available in each regulated dam (or network of linked containment systems with a shared DSA volume) to meet the Design Storage Allowance (DSA) volume of the dam (or network of linked containment systems).</p>   |
| <b>J20</b> | <p>The holder must, as soon as possible and <b>within forty-eight (48) hours</b> of becoming aware that the regulated dam (or network of linked containment system) will not have the available storage to meet the DSA volume on 1 November of any year, notify the administering authority.</p>   |
| <b>J21</b> | <p>The holder must, immediately on becoming aware that a regulated dam (or network of linked containment systems) will not have the available storage to meet the DSA volume on 1 November of any year, act to prevent the occurrence of any unauthorised discharge from the regulated dam or linked containment systems.</p>   |
| <b>J22</b> | <p><b>Annual inspection report</b></p> <p>Each regulated structure <del>dam</del> must be inspected each calendar year by a suitably e qualified and experienced person.</p>  |
| <b>J23</b> | <p>At each inspection the condition and adequacy of all components of the regulated structure must be assessed and a suitably qualified and experienced person must prepare an annual inspection report containing details of the assessment and include a recommendations section, with any recommended actions to ensure the integrity of the regulated structure or a positive statement that no recommendations are required.</p>   |
| <b>J24</b> | <p>The suitably e qualified and experienced person who prepared the annual inspection report must certify the report in accordance with the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933).</p>   |
| <b>J25</b> | <p>The holder must:</p> <p>a) <del>W</del> within 20 business days of receipt of the annual inspection report provide to the administering authority:</p> <ol style="list-style-type: none"> <li>1. the recommendations section of the annual inspection report; and</li> <li>2. if applicable, any actions being taken in response to those recommendations; and</li> </ol> <p>b) 3. † if, following receipt of the recommendations and (if applicable) recommended actions, the administering authority requests a full copy of the annual inspection report from the holder, provide this <del>information</del> to the administering authority within 10 business days of receipt of the request.</p> |
| <b>J26</b> | <p><b>Transfer arrangements</b></p> <p>The holder must provide a copy of any reports, documentation and certifications prepared under this <del>schedule of this</del> authority, including but not limited to the Register of Regulated Structures, consequence assessment, design plan and other supporting documentation, to a new holder on transfer of this authority.</p>   |

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| J27 | <p><b>Decommissioning and rehabilitation</b></p> <p><del>Dams</del> Regulated structures must not be abandoned but be either:</p> <p>a) Decommissioned and rehabilitated to achieve compliance with <b>Condition J28</b>; or</p> <p>b) Be left in-situ for a beneficial use(s) provided that:</p> <ol style="list-style-type: none"> <li>1. it no longer contains contaminants that will migrate into the environment; and</li> <li>2. it contains water of a quality that is demonstrated to be suitable for the intended beneficial use(s); and</li> <li>3. the administering authority, the holder of the environmental authority and the landholder agree in writing that <ol style="list-style-type: none"> <li>i. the dam will be used by the landholder following cessation of <del>the resource activity</del> environmentally relevant activity(ies); and</li> <li>ii. the landholder is responsible for the dam, on and from an agreed date</li> </ol> </li> </ol>   |
| J28 | <p><del>After decommissioning, all significantly disturbed land caused by carrying out of the resource activity</del> Unless specified by another condition of this environmental authority, before surrendering this environmental authority all regulated structures must be rehabilitated to achieve a safe, stable, non-polluting landform and must be rehabilitated to meet the final acceptance criteria:</p> <p>a) <del>The landform is safe for humans and fauna;</del></p> <p>b) <del>The landform is stable with no subsidence of erosion gullies for at least three (3) years;</del></p> <p>c) <del>Any contaminated land (e.g. contaminated soils) is remediated and rehabilitated;</del></p> <p>d) <del>Not allowing for acid mine drainage;</del></p> <p>e) <del>There is no ongoing contamination to waters (including groundwater);</del></p> <p>f) <del>All significantly disturbed land is reinstated as defined in Table H1 — Rehabilitation requirements;</del></p> <p>g a) For land that is not being cultivated by the landholder:</p> <ol style="list-style-type: none"> <li>1. i. groundcover, that is not a declared pest species is established and self-sustaining</li> <li>2. ii. vegetation of similar species richness and species diversity to pre-selected analogue sites is established and self-sustaining, and</li> <li>3. iii. the maintenance requirements for rehabilitated land is no greater than that required for the land prior to its disturbance caused by carrying out the <del>petroleum</del> mining activities <del>y(ies)</del>.</li> </ol> <p>h) b) For land that is to be cultivated by the landowner, cover crop is revegetated, unless the landholder will be preparing the site for cropping <b>within 3 months</b> of <del>resource</del> mining activities being completed.</p> |
| J29 | <p><b>Register of Regulated <del>Dams</del> Structures</b></p> <p>A Register of Regulated <del>Dams</del> Structures must be established and maintained by the holder for each regulated <del>dam</del> structure.</p>   |

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| <b>J30</b> | The holder must provisionally enter the required information in the Register of Regulated <del>Dams</del> -Structures when a design plan for a regulated <del>dam</del> structure is submitted to the administering authority.                                      |
| <b>J31</b> | The holder must make a final entry of the required information in the Register of Regulated <del>Dams</del> -Structures once compliance with <b>Conditions J8</b> and <b>J9</b> has been achieved.  |
| <b>J32</b> | The holder must ensure that the information contained in the Register of Regulated <del>Dams</del> -Structures is current and complete on any given day.  |
| <b>J33</b> | All entries in the Register of Regulated <del>Dams</del> -Structures must be approved by the chief executive officer for the holder of this authority, or their delegate, as being accurate and correct.  |
| <b>J34</b> | The holder must, at the same time as providing the annual return, supply to the administering authority a copy of the records contained in the Register of Regulated <del>Dams</del> -Structures, in the electronic format required by the administering authority. |

| Agency interest: Light |  |
|------------------------|--|
| Condition number       | Condition  |
| <b>K1</b>              | Subject to <b>Condition K2</b> , the emission of light resulting from the mining activity must not cause an environmental nuisance at any sensitive place.   |
| <b>K2</b>              | When requested by the administering authority, an assessment of the light nuisance* must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive place, and the results must be notified within 14 days of the administering authority following completion of the assessment.<br><br>(* Assessment to be conducted according to and with reference to the limits specified in AS/NZS 4282:2019 Control of the Obtrusive Effects of Outdoor lighting). |
| <b>K3</b>              | If the assessment indicates Condition <b>K2</b> is not being met then the environmental authority holder must: <ul style="list-style-type: none"> <li>a) address the complaint including the use of appropriate dispute resolution if required; or</li> <li>b) immediately implement light abatement measures so the emissions of light from the activity do not result in further environmental nuisance.</li> </ul>  |

| Agency interest: Community |           |
|----------------------------|-----------|
| Condition number           | Condition |

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| <b><u>L1</u></b> | <p><b>Complaints</b></p> <p>The holder of this environmental authority must record all environmental complaints received about the mining activities including:</p> <ul style="list-style-type: none"> <li>a) name, address and contact number for of the complainant;</li> <li>b) time and date of complaint;</li> <li>c) reasons for the complaint;</li> <li>d) investigations undertaken;</li> <li>e) conclusions formed;</li> <li>f) actions taken to resolve the complaint;</li> <li>g) any abatement measures implemented; <del>and</del></li> <li>h) person responsible for resolving the complaint; and</li> <li>i) records of any referrals to an independent counselling service.</li> </ul> <p>The information as outlined in <b>Condition <u>L1</u> (a) to (i)</b> with the consent of the complainant must be sent to the administering authority (and the complainant) within 28 days of the complaint being received and updated every further 28 days until action has been taken to resolve the complaint.</p> |
| <b><u>L2</u></b> | <p>The holder of this environmental authority must, when requested by the administering authority, undertake relevant specified monitoring within a reasonable timeframe nominated or agreed to by the administering authority to investigate any complaint of environmental harm. The results of the investigation (including an analysis and interpretation of the monitoring results) and abatement measures, where implemented, must be provided to the administering authority <b>within 10 business days</b> of completion of the investigation, or no later than 10 business days after the end of the timeframe nominated by the administering authority to undertake the investigation.</p>  |
| <b><u>L3</u></b> | <p><b>Notification of emergencies, incidents and exceptions</b></p> <p>The holder of this environmental authority must notify the administering authority by written notification <b>within 24 hours</b> after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with, the conditions of this environmental authority.</p>   |
| <b><u>L4</u></b> | <p><b>Within 10 business days</b> following the initial notification of an emergency or incident, or receipt of monitoring results, whichever is the later, further written advice must be provided to the administering authority, including the following:</p> <ul style="list-style-type: none"> <li>a) results and interpretation of any samples taken and analysed;</li> <li>b) outcomes of actions taken at the time to prevent or minimise unlawful environmental harm; and</li> <li>c) proposed actions to prevent a recurrence of the emergency or incident.</li> </ul>  |
| <b><u>L5</u></b> | <p>At the completion of mining, the environmental authority holder must apply to the relevant authority to restore or provide alternative road access to Acland Township, in particular to the war memorial.</p>  |
| <b><u>L6</u></b> | <p><del>Basalt from stockpiles must only be transported within the approved mining area as indicated in <b>Figure 1 (Revised Project Overview – Mine Area)</b>, wherever possible.</del></p>  |

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| <b>L7</b> | The environmental authority holder must provide an independent counselling service accessible to all local landowners located within 5km of the mining lease boundary to deal with concerns, stress and emotional distress associated with mining activities. |
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## Definitions

|                                |  |
|--------------------------------|--|
| <b>acid rock drainage</b>      | any contaminated discharge emanating from a mining activity formed through a series of chemical and biological reactions, when geological strata is disturbed and exposed to oxygen and moisture.  |
| <b>acceptance criteria</b>     | <p>means the measures by which actions implemented are deemed to be complete. The acceptance criteria indicate the success of the decommissioning and rehabilitation outcomes or remediation of areas which have been significantly been disturbed by the mining activities. Acceptance criteria may include information regarding:</p> <ul style="list-style-type: none"> <li>- stability of final land forms in terms of settlement, erosion, weathering, pondage and drainage;</li> <li>- control of geochemical and contaminant transport processes;</li> <li>- quality of runoff waters and potential impact on receiving environment;</li> <li>- vegetation establishment, survival and succession;</li> <li>- vegetation productivity, sustained growth and structure development;</li> <li>- fauna colonisation and habitat development;</li> <li>- ecosystem processes such as soil development and nutrient cycling, and the recolonisation of specific fauna groups such as collembola, mites and termites which are involved in these processes;</li> <li>- microbiological studies including recolonisation by mycorrhizal fungi, microbial biomass and respiration;</li> <li>- effects of various establishment treatments such as deep ripping, topsoil handling, seeding and fertiliser application on vegetation growth and development;</li> <li>- resilience of vegetation to disease, insect attack, drought and fire;</li> <li>- vegetation water use and effects on ground water levels and catchment yields.</li> </ul> |
| <b>administering authority</b> | means the Environmental Protection Agency or its successor.  |
| <b>affected person</b>         | someone whose drinking water can potentially be impacted as a result of discharges from a dam or their life can be put at risk due to dwellings or workplaces being in the path of a dam break flood.  |
| <b>airblast overpressure</b>   | energy transmitted from the blast site within the atmosphere in the form of pressure waves. The maximum excess pressure in this wave, above ambient pressure is the peak airblast overpressure measured in decibels linear (dBL).  |
| <b>air emission</b>            | means a substance released into the air.   |
| <b>air environment</b>         | means the part of the environment of an area or place characterised by the air emissions that may be experienced there.  |

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| <b>ambient (or total) noise</b>   | at a place, means the level of noise at the place from all sources (near and far), measured as the Leq for an appropriate time interval  |
| <b>appropriately qualified person</b>   | a person who has professional qualifications, training, skills or experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relating to the subject matter using the relevant protocols, standards, methods or literature.   |
| <b>annual inspection report</b>   | <p>an assessment prepared by a suitably qualified and experienced person containing details of the assessment against the most recent consequence assessment report and design plan (or system design plan):</p> <ul style="list-style-type: none"> <li>• against recommendations contained in previous annual inspections reports;</li> <li>• against recognised dam safety deficiency indicators;</li> <li>• for changes in circumstances potentially leading to a change in consequence category;</li> <li>• for conformance with the conditions of this authority;</li> <li>• for conformance with the 'as constructed' drawings;</li> <li>• for the adequacy of the available storage in each regulated dam, based on an actual observation or observations taken after 31 May each year but prior to 1 November of that year, of accumulated sediment, state of the containment barrier and the level of liquids in the dam (or network of linked containment systems);</li> <li>• for evidence of conformance with the current operational plan.</li> </ul> |
| <b>Annual Exceedance Probability or AEP</b>   | the probability that at least one event in excess of a particular magnitude will occur in any given year   |
| <b>appropriately qualified person</b>   | means a person or body possessing appropriate experience and qualifications to perform these tasks.  |
| <b>Areas of Interest</b>  | The area of noise monitoring coverage captured by the noise compass in five degree increments when adjusted to reflect current mining activity   |
| <b>assessed or assessment by a suitably qualified and experienced person</b> in relation to a consequence assessment of a structure | <p>a statutory declaration has been made by that person and, when taken together with any attached or appended documents referenced in that declaration, all of the following aspects are addressed and are sufficient to allow an independent audit of the assessment:</p> <ul style="list-style-type: none"> <li>• exactly what has been assessed and the precise nature of that determination;</li> <li>• the relevant legislative, regulatory and technical criteria on which the assessment has been based;</li> <li>• the relevant data and facts on which the assessment has been based, the source of that material, and the efforts made to obtain all relevant data and facts; and</li> </ul>  |

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|  | <ul style="list-style-type: none"> <li>the reasoning on which the assessment has been based using the relevant data and facts, and the relevant criteria.</li> </ul>   |
| <b>associated works in relation to a structure</b>       | <p>operations of any kind and all things constructed, erected or installed for that structure; and</p> <p>any land used for those operations.</p>  |
| <b>authority</b>   | an environmental authority or a development approval.  |
| <b>background</b> , with reference to the water schedule | the average of samples taken prior to the commencement of mining from the same waterway that the current sample has been taken.  |
| <b>background noise level</b>                            | <p>means noise, measured in the absence of the noise under investigation, as either:</p> <ul style="list-style-type: none"> <li>L A90,T being the A-weighted sound pressure level exceeded for 90 percent of the time period of not less than 15 minutes, using Fast response, or</li> <li>L LA<sub>bg</sub>,T being the arithmetic average of the minimum readings during a representative time period of not less than 15 minutes, using Fast response.</li> </ul>   |
| <b>blasting</b>  | <p>the use of explosive materials to fracture:</p> <ul style="list-style-type: none"> <li>rock, coal and other minerals for later recovery; or</li> <li>structural components or other items to facilitate removal from a site or for reuse.</li> </ul>  |
| <b>Certification</b>                                     | assessment and approval must be undertaken by a suitably qualified and experienced person in relation to any assessment or documentation required by the <i>Manual (Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933))</i> . including design plans, 'as constructed' drawings and specifications, construction, operation or an annual report regarding regulated structures, undertaken in accordance with the Board of Professional Engineers of Queensland Policy Certification by RPEQs (ID: 1.4 (3A)).   |
| <b>Certifying, certify or certified</b>                  | a corresponding meaning as certification   |
| <b>chemical</b>  | <ul style="list-style-type: none"> <li>an agricultural chemical product or veterinary chemical product within the meaning of the <i>Agricultural and Veterinary Chemicals Code Act 1994</i> (Commonwealth); or</li> <li>a dangerous good under the Australian Code for the Transport of Dangerous Goods by Road and Rail approved by the Australian Transport Council; or</li> <li>a lead hazardous substance within the meaning of the Workplace Health and Safety Regulation 1997;</li> <li>a drug or poison in the Standard for the Uniform Scheduling of Medicines and Poisons prepared by the Australian Health Ministers Advisory Council and published by the Commonwealth; or</li> <li>any substance used as, or intended for use as:</li> </ul> |

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|  | <ul style="list-style-type: none"> <li>– a pesticide, insecticide, fungicide, herbicide, rodenticide, nematocide, miticide, fumigant or related product; or</li> <li>– a surface active agent, including, for example, soap or related detergent; or</li> <li>– a paint solvent, pigment, dye, printing ink, industrial polish, adhesive, sealant, food additive, bleach, sanitiser, disinfectant, or biocide; or</li> <li>– a fertiliser for agricultural, horticultural or garden use; or</li> <li>– a substance used for, or intended for use for mineral processing or treatment of metal, pulp and paper, textile, timber, water or wastewater; or</li> <li>– manufacture of plastic or synthetic rubber.</li> </ul> |
| <b>Compliance Bore</b>                                   | Refers to a groundwater monitoring bore which is the subject of compliance requirements for both groundwater quality and level.   |
| <b>commercial place</b>                                  | a workplace used as an office or for business or commercial purposes, including agricultural purposes, which is not part of the mining activity and does not include employee accommodation or public roads.  |
| <b>Consequence</b> in relation to a structure as defined | the potential for environmental harm resulting from the collapse or failure of the structure to perform its primary purpose of containing, diverting or controlling flowable substances.  |
| <b>Consequence category</b>                              | a category, either low, significant or high, into which a <del>dam</del> structure is assessed as a result of the application of tables and other criteria in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933).   |
| <b>construction or constructed</b> in relation to a dam  | includes building a new <del>dam</del> structure and modifying or lifting an existing <del>dam</del> structure, but does not include investigations and testing necessary for the purpose of preparing a design plan.   |
| <b>dam</b>   | a land-based structure or a void that contains, diverts or controls flowable substances, and includes any substances that are thereby contained, diverted or controlled by that land-based structure or void and associated works.  |
| <b>dam crest volume</b>                                  | the volume of material (liquids and/or solids) that could be within the walls of a dam at any time when the upper level of that material is at the crest level of that dam. That is, the instantaneous maximum volume within the walls, without regard to flows entering or leaving (for example, via spillway).  |
| <b>dB (Linear) Peak</b>                                  | is the maximum reading in decibels (dB) obtained using the "P" time — weighting characteristic as specified in AS 1259.1 — 1990 with all frequency — weighted networks inoperative  |
| <b>declared plant</b>                                    | means a plant that has been declared under the <i>Rural Lands Protection Act 1985</i>   |

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| <b>design plan</b>  | a document setting out how all identified consequence scenarios are addressed in the planned design and operation of a regulated structure.   |
| <b>design storage allowance or DSA</b>                    | an available volume, estimated in accordance with the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933) published by the administering authority, must be provided in a dam as at 1 November each year in order to prevent a discharge from that dam to an <b>annual exceedance probability</b> (AEP) specified in that Manual.  |
| <b>designer</b> for the purposes of a regulated structure | the certifier of the design plan for the regulated <del>dam</del> structure.  |
| <b>development approval</b>                               | a development approval under the <i>Integrated Planning Act 1997</i> or the <i>Sustainable Planning Act 2009</i> in relation to a matter that involves an environmentally relevant activity under the <i>Environmental Protection Act 1994</i> .  |
| <b>disturbance of land</b>                                | <p>includes:</p> <ul style="list-style-type: none"> <li>• compacting, removing, covering, exposing or stockpiling of earth;</li> <li>• removal or destruction of vegetation or topsoil or both to an extent where the land has been made susceptible to erosion;</li> <li>• carrying out mining within a watercourse, waterway, wetland or lake;</li> <li>• the submersion of areas by tailings or hazardous contaminant storage and dam/structure walls;</li> <li>• temporary infrastructure, including any infrastructure (roads, tracks, bridges, culverts, dam/structures, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc.) which is to be removed after the mining activity has ceased; or</li> <li>• releasing of contaminants into the soil, or underlying geological strata.</li> </ul> <p>However, the following areas are not included when calculating areas of disturbance:</p> <ul style="list-style-type: none"> <li>• areas off lease (e.g. roads or tracks which provide access to the mining lease);</li> <li>• areas previously disturbed which have achieved the rehabilitation outcomes;</li> <li>• by agreement with the administering authority, areas previously disturbed which have not achieved the rehabilitation objective(s) due to circumstances beyond the control of the mine operator (such as climatic conditions);</li> <li>• areas under permanent infrastructure. Permanent infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dam/structures, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc) which is to be left by agreement with the landowner;</li> <li>• disturbance that pre-existed the grant of the tenure.</li> </ul> |

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| <b>EC</b>                             | electrical conductivity.   |
| <b>effluent</b>                       | treated waste water released from sewage treatment plants.   |
| <b>emergency action plan</b>          | documentation forming part of the operational plan held by the holder or a nominated responsible officer, that identifies emergency conditions that sets out procedures and actions that will be followed and taken by the dam-structure owner and operating personnel in the event of an emergency. The actions are to minimise the risk and consequences of failure, and ensure timely warning to downstream communities and the implementation of protection measures. The plan must require dam structure owners to annually update contact. |
| <b>environmental authority holder</b> | means the holder of this environmental authority   |
| <b>environmental nuisance</b>         | is unreasonable interference or likely interference with an environmental value caused by: <ul style="list-style-type: none"> <li>a) noise, dust, odour, light; or</li> <li>b) an unhealthy, offensive or unsightly condition because of contamination; or</li> <li>c) another way prescribed by regulation.</li> </ul>  |
| <b>existing structure</b>             | a structure that was in existence prior to the adoption of this schedule of conditions under the authority.  |
| <b>Extreme Storm Storage</b>          | a storm storage allowance determined in accordance with the criteria in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933) published by the administering authority  |
| <b>first flush diverter system</b>    | First flush diverter systems are to prevent bird droppings and dust entering rainwater tank and first rains.   |
| <b>flowable substance</b>             | matter or a mixture of materials which can flow under any conditions potentially affecting that substance. Constituents of a flowable substance can include water, other liquids fluids or solids, or a mixture that includes water and any other liquids fluids or solids either in solution or suspension.   |
| <b>foreseeable future</b>             | is the period used for assessing the total risk of an event occurring. Permanent structures and ecological sustainability should be expected to still exist at the end of a 150 year foreseeable future with an acceptable risk of failure before that time.   |
| <b>hazard category</b>                | a category, either low significant or high, into which a dam is assessed as a result of the application of tables and other criteria in <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933).  |
| <b>holder</b>                         | <ul style="list-style-type: none"> <li>• where this document is an environmental authority, any person who is the holder of, or is acting under, that environmental authority; or</li> </ul>   |

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|   | <ul style="list-style-type: none"> <li>where this document is a development approval, any person who is the registered operator for that development approval.</li> </ul>   |
| <b>hydraulic performance</b>                      | the capacity of a regulated dam structure to contain or safely pass flowable substances based on the design criteria specified for the relevant consequence category in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933).   |
| <b>Interpretation bore</b>                        | Refers to a groundwater monitoring bore that represents natural background quality and levels which is used for comparative and interpretative purposes against compliance bores. An interpretation bore should not be impacted by mining activities.   |
| <b>infrastructure</b>                             | water storage dams, levees, roads and tracks, buildings and other structures built for the purpose of the mining activity.  |
| <b>land</b> in the land schedule of this document | land excluding waters and the atmosphere, that is, the term has a different meaning from the term as defined in the <i>Environmental Protection Act 1994</i> . For the purposes of the <i>Acts Interpretation Act 1954</i> , it is expressly noted that the term land in this environmental authority relates to physical land and not to interests in land.  |
| <b>land capability</b>                            | as defined in the DME 1995 Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland  |
| <b>land suitability</b>                           | as defined in the DME 1995 Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland.   |
| <b>land use</b>                                   | the selected post mining use of the land, which is planned to occur after the cessation of mining operations.   |
| <b>L<sub>Aeq,adj</sub> 15 min intervals</b>       | A-weighted equivalent continuous sound level over 15 minute intervals   |
| <b>L<sub>Ar</sub>, 1 hour</b>                     | means the specific noise level measured as the A-weighted equivalent continuous noise level (L <sub>Aeq</sub> ) plus any adjustment for the character of the noise (tonal and/or impulsive) determined over a reference time period of one hour   |
| <b>L<sub>A10,adj</sub>, 15 min</b>                | A-weighted, sound level just exceeded for 10% of the 15 minute period   |
| <b>leachate</b>                                   | a liquid that has passed through or emerged from, or is likely to have passed through or emerged from, a material stored, processed or disposed of at the operational land which contains soluble, suspended or miscible contaminants likely to have been derived from the said material.   |
| <b>levee</b>                                      | an embankment that only provides for the containment and diversion of stormwater or flood flows from a contributing catchment, or containment and diversion of flowable materials resulting from releases from other works, during the progress of those stormwater or flood flows or those releases; and does not store any significant volume of <b>water</b> or <b>flowable substances</b> at any other times. |
| <b>licensed place</b>                             | the mining activities carried out at the mining tenements detailed in this environmental authority.   |

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| <b>low consequence dam</b>                | any dam that is not a high or significant consequence category as assessed using the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933)                                      |
| <b>m</b>                                  | metres   |
| <b>mandatory reporting level or MRL</b>   | a warning and reporting level determined in accordance with the criteria in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933) published by the administering authority. |
| <b>manual</b>                             | the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933) published by the administering authority.   |
| <b>maximum</b>                            | means that the measured value of the quality characteristic or contaminant must not be greater than the release limit stated   |
| <b>Maximum Instantaneous Charge (MIC)</b> | is the maximum amount of explosive on any one specific delay detonator in any one blast hole.  |
| <b>LA max</b>                             | means the maximum A-weighted sound pressure level measured over a time period of not less than 15 minutes, using Fast response   |
| <b>measures</b>                           | includes any measures to prevent or minimise environmental impacts of the mining activity such as bunds, silt fences, diversion drains, capping, and containment systems.  |
| <b>median</b>                             | means the middle value, where half the data are smaller, and half the data are larger. If the number of samples is even, the median is the arithmetic average of the two middle values   |
| <b>mg/kg</b>                              | means milligrams per kilogram  |
| <b>mg/L</b>                               | means milligrams per litre   |

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| <b>mine-affected water</b>       | <p>the following types of water:</p> <ol style="list-style-type: none"> <li>i. pit water, tailings dam water, processing plant water;</li> <li>ii. water contaminated by a mining activity which would have been an environmentally relevant activity under Schedule 2 of the Environmental Protection Regulation 2019 if it had not formed part of the mining activity;</li> <li>iii. rainfall runoff which has been in contact with any areas disturbed by mining activities which have not yet been rehabilitated, excluding rainfall runoff discharging through release points associated with erosion and sediment control structures that have been installed in accordance with the standards and requirements of an Erosion and Sediment Control Plan to manage such runoff, provided that this water has not been mixed with pit water, tailings dam water, processing plant water or workshop water;</li> <li>iv. groundwater which has been in contact with any areas disturbed by mining activities which have not yet been rehabilitated;</li> <li>v. groundwater from the mines dewatering activities;</li> <li>vi. a mix of mine affected water (under any of paragraphs i-v, above) and other water.</li> </ol> <p>does not include surface water runoff which, to the extent that it has been in contact with areas disturbed by mining activities that have not yet been completely rehabilitated, has only been in contact with:</p> <ul style="list-style-type: none"> <li>• land that has been rehabilitated to a stable landform and either capped or revegetated in accordance with the acceptance criteria set out in the environmental authority but only still awaiting maintenance and monitoring of the rehabilitation over a specified period of time to demonstrate rehabilitation success; or</li> <li>• land that has partially been rehabilitated and monitoring demonstrates the relevant part of the landform with which the water has been in contact does not cause environmental harm to waters or groundwater, for example: <ul style="list-style-type: none"> <li>– areas that are been capped and have monitoring data demonstrating hazardous material adequately contained with the site;</li> <li>– evidence provided through monitoring that the relevant surface water would have met the water quality parameters for mine affected water release limits in this environmental authority, if those parameters had been applicable to the surface water runoff; or</li> <li>– both.</li> </ul> </li> </ul> |
| <b>minimum</b>                   | means that the measured value of the quality characteristic or contaminant must not be less than the release limit stated  |
| <b>modification or modifying</b> | see definition of construction   |
| <b>monitoring records</b>        | includes, but is not limited to, all performance monitoring and compliance monitoring data   |

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| <b>NATA</b>                  | National Association of Testing Authorities, Australia.  |
| <b>natural flow</b>          | the flow of water through waters caused by nature.   |
| <b>ng/L</b>                  | means nanograms per litre  |
| <b>noise sensitive place</b> | <p>means:</p> <ul style="list-style-type: none"> <li>• a legal dwelling, caravan park, residential marina or other residential premises; or</li> <li>• a motel, hotel or hostel; or</li> <li>• a kindergarten, school, university or other educational institution; or</li> <li>• a medical centre or hospital; or</li> <li>• a protected area; or</li> <li>• a public park or gardens; and</li> <li>• includes the curtilage of any such place.</li> </ul> <p>but does not include</p> <p>(a) places that are within the boundaries of the mining lease; or</p> <p>(b) places that are owned or leased by the holder of the environmental authority or its related companies; or</p> <p>(c) places for which an agreement has been entered into between the holder of the environmental authority and the owner of the place for the provision of alternative measures to mitigate the impact of mining activities for the Stage 3 New Acland Mine Project at the place, where those measures are reasonably expected to result in noise levels experienced at the place that are consistent with the relevant limits in Table F1 - Noise Limits.</p> |
| <b>non polluting</b>         | having no adverse impacts upon the receiving environment.  |
| <b>noxious</b>               | means harmful or injurious to health or physical well being, other than trivial harm   |
| <b>offensive</b>             | means causing unreasonable offence or displeasure; is unreasonably disagreeable to the sense; disgusting, nauseous or repulsive, other than trivial harm.  |
| <b>operational plan</b>      | <p>includes:</p> <ul style="list-style-type: none"> <li>• normal operating procedures and rules (including clear documentation and definition of process inputs in the DSA allowance);</li> <li>• contingency and emergency action plans including operating procedures designed to avoid and/or minimise environmental impacts including threats to human life resulting from any overtopping or loss of structural integrity of the regulated structure.</li> </ul>  |

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| <b>peak particle velocity (ppv)</b>   | a measure of ground vibration magnitude which is the maximum rate of change of ground displacement with time, usually measured in millimetres/second (mm/s).   |
| <b>protected area</b>   | means: <ul style="list-style-type: none"> <li>• a protected area under the <i>Nature Conservation Act 1992</i>; or</li> <li>• a marine park under the <i>Marine Parks Act 2004</i>; or</li> <li>• a World Heritage Area.</li> </ul>  |
| <b>progressive rehabilitation</b>   | means rehabilitation (defined below) undertaken progressively OR a staged approach to rehabilitation as mining operations are ongoing  |
| <b>range</b>  | means that the measured value of the quality characteristic or contaminant must not be greater than the higher release limit stated nor lower than the lower release limit stated  |
| <b>receiving environment</b> in relation to an activity that causes or may cause environmental harm | the part of the environment to which the harm is, or may be, caused. The receiving environment includes (but is not limited to): <ul style="list-style-type: none"> <li>• a watercourse;</li> <li>• groundwater; and</li> <li>• an area of land.</li> </ul>  |
| <b>receiving waters</b>   | the waters into which this environmental authority authorises releases of mine affected water.   |
| <b>Register of Regulated Structure</b>  | includes: <ul style="list-style-type: none"> <li>• Date of entry in the register;</li> <li>• Name of the <del>dam</del>-structure, its purpose and intended/actual contents;</li> <li>• The consequence category of the <del>dam</del>-structure as assessed using the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933);</li> <li>• Dates, names, and reference for the design plan plus dates, names, and reference numbers of all document(s) lodged as part of a design plan for the <del>dam</del>-structure;</li> <li>• Name and qualifications of the suitably qualified and experienced person who certified the design plan and as constructed drawings;</li> <li>• For the regulated dams only, <del>other than in relation to any levees</del> - <ol style="list-style-type: none"> <li>a) The dimensions (metres) and surface area (hectares) of the dam measured at the footprint of the dam;</li> <li>b) Coordinates (latitude and longitude in GDA94) within five metres at any point from the outside of the dam including its storage area</li> <li>c) Dam crest volume (megalitres);</li> </ol> </li> </ul> |

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|                                   | <p>d) Spillway crest level (metres AHD).</p> <p>e) Maximum operating level (metres AHD);</p> <p>f) Storage rating table of stored volume versus level (metres AHD);</p> <p>g) Design storage allowance (megalitres) and associated level of the dam (metres AHD);</p> <p>h) Mandatory reporting level (metres AHD);</p> <ul style="list-style-type: none"> <li>• The design plan title and reference relevant to the dam;</li> <li>• The date construction was certified as compliant with the design plan;</li> <li>• The name and details of the suitably qualified and experienced person who certified that the constructed dam was compliant with the design plan;</li> <li>• Details of the composition and construction of any liner;</li> <li>• For regulated dams only † the system for the detection of any leakage through the floor and sides of the dam;</li> <li>• Dates when the regulated dam underwent an annual inspection for structural and operational adequacy, and to ascertain the available storage volume for 1 November of any year;</li> <li>• Dates when recommendations and actions arising from the annual inspection were provided to the administering authority;</li> <li>• Dam water quality as obtained from any monitoring required under this authority as at 1 November of each year.</li> </ul> |
| <b>rehabilitation</b>             | the process of reshaping and revegetating land to restore it to a stable landform   |
| <b>release event</b>              | a surface water discharge from mine affected water storages or contaminated areas on the licensed place.  |
| <b>RL</b>                         | reduced level, relative to mean sea level as distinct from depths to water.   |
| <b>representative</b>             | a sample set which covers the variance in monitoring or other data either due to natural changes or operational phases of the mining activities.  |
| <b>regulated dam</b>              | any dam in the significant or high consequence category as assessed using the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933) published by the administering authority.  |
| <b>regulated structure</b>        | includes land-based containment structures, levees, bunds and voids, but not a tank or container designed and constructed to an Australian Standard that deals with strength and structural integrity.  |
| <b>residual drilling material</b> | waste drilling materials including muds and cuttings or cement returns from well holes and which have been left behind after the drilling fluids are pumped out.  |

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| <b>residual void</b>   | means an open pit resulting from the removal of ore and/or waste rock, which will remain following the cessation of all mining activities and completion of rehabilitation processes   |
| <b>saline drainage</b>   | the movement of waters, contaminated with salts, as a result of the mining activity.   |
| <b>self sustaining</b>   | means an area of land which has been rehabilitated and has maintained the required acceptance criteria without human intervention for a period nominated by the administering authority.   |
| <b>sensitive place</b>   | <ul style="list-style-type: none"> <li>• a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or</li> <li>• a motel, hotel or hostel; or</li> <li>• an educational institution; or</li> <li>• a medical centre or hospital; or</li> <li>• a protected area under the <i>Nature Conservation Act 1992</i>, the <i>Marine Parks Act 2004</i> or a World Heritage Area; or</li> <li>• a public park or gardens.</li> </ul> |
| <b>Structure</b>   | dam or levee.  |
| <b>Spillway</b>  | a weir, channel, conduit, tunnel, gate or other structure designed to permit discharges from the dam, normally under flood conditions or in anticipation of flood conditions.  |
| <b>spillway crest</b>  | means the highest point (elevation) of the spillway, above which water will flow along the spillway and discharge from the dam if the flow rate is sufficient  |
| <b>stable</b>  | means land form dimensions are or will be stable within tolerable limits now and in the foreseeable future. Stability includes consideration of geotechnical stability, settlement and consolidation allowances, bearing capacity (traffic ability), erosion resistance and geochemical stability with respect to seepage and contaminant generation   |
| <b>Stage 3 New Acland mine project</b>   | means the Stage 3 New Acland mine project that was approved in the CG's report.  |
| <b>suitably qualified and experienced person in relation to air emissions</b>        | A person who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the <i>Professional Engineers Act 2002</i> , and has demonstrated competency and relevant experience in relation to air emissions.   |
| <b>suitably qualified and experienced person in relation to noise</b>                | A person who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the <i>Professional Engineers Act 2002</i> , and has demonstrated competency and relevant experience as an acoustician.  |
| <b>suitably qualified and experienced person in relation to regulated structures</b> | a person who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the <i>Professional Engineers Act 2002</i> , and has demonstrated competency and relevant experience:  |

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|                           |   |
|---------------------------|---|
|                           | <ul style="list-style-type: none"> <li>for regulated dams, an RPEQ who is a civil engineer with the required qualifications in dam safety and dam design.</li> <li>for regulated levees, an RPEQ who is a civil engineer with the required qualifications in the design of flood protection embankments.</li> </ul> <p>Note: It is permissible that a suitably qualified and experienced person obtain subsidiary certification from an RPEQ who has demonstrated competence and relevant experience in either geomechanics, hydraulic design or engineering hydrology.</p> |
| <b>system design plan</b> | a plan that manages an integrated containment system that shares the required DSA and/or ESS volume across the integrated containment system.   |
| <b>the Act</b>            | the <i>Environmental Protection Act 1994</i> .  |
| <b>tolerable limits</b>   | means that a range of values could be accepted to achieve an overall environmental management objective (eg a range of settlement of a tailing capping could still meet the objective of draining the cap quickly, preventing pondage and limiting infiltration and percolation)  |
| <b>uS/cm</b>              | microsiemens per centimetre.  |
| <b>ug/L</b>               | means micrograms per litre.   |
| <b>void</b>               | any constructed, open excavation in the ground.   |
| <b>watercourse</b>        | <p>has the meaning in Schedule 4 of the <i>Environmental Protection Act 1994</i> and means a river, creek or stream in which water flows permanently or intermittently—</p> <ul style="list-style-type: none"> <li>in a natural channel, whether artificially improved or not; or</li> <li>in an artificial channel that has changed the course of the watercourse.</li> </ul> <p>watercourse includes the bed and banks and any other element of a river, creek or stream confining or containing water.</p>   |
| <b>Waters</b>             | includes all or any part of a river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined water in natural or artificial watercourses, bed and banks of a watercourse, dams, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and groundwater.   |
| <b>Water quality</b>      | the chemical, physical and biological condition of water.   |
| <b>Water year</b>         | the 12-month period from 1 July to 30 June.   |
| <b>Wet season</b>         | the time of year, covering one or more months, when most of the average annual rainfall in a region occurs. For the purposes of DSA determination this time of year is deemed to extend from 1 November in one year to 31 May in the following year inclusive.  |

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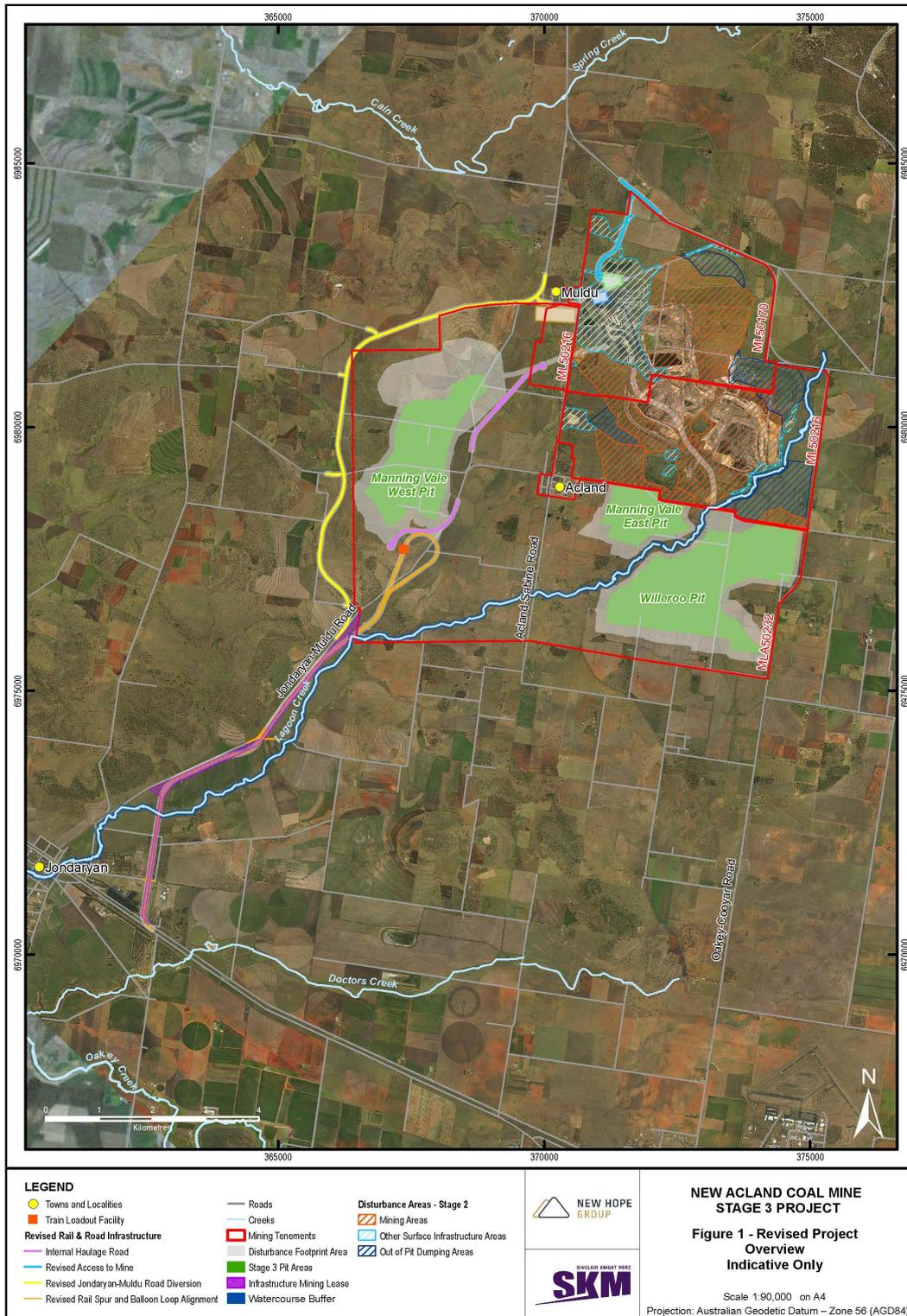
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**Agency Interest — Figures:**

**Figure 1: Revised Project Overview — Mine Area**

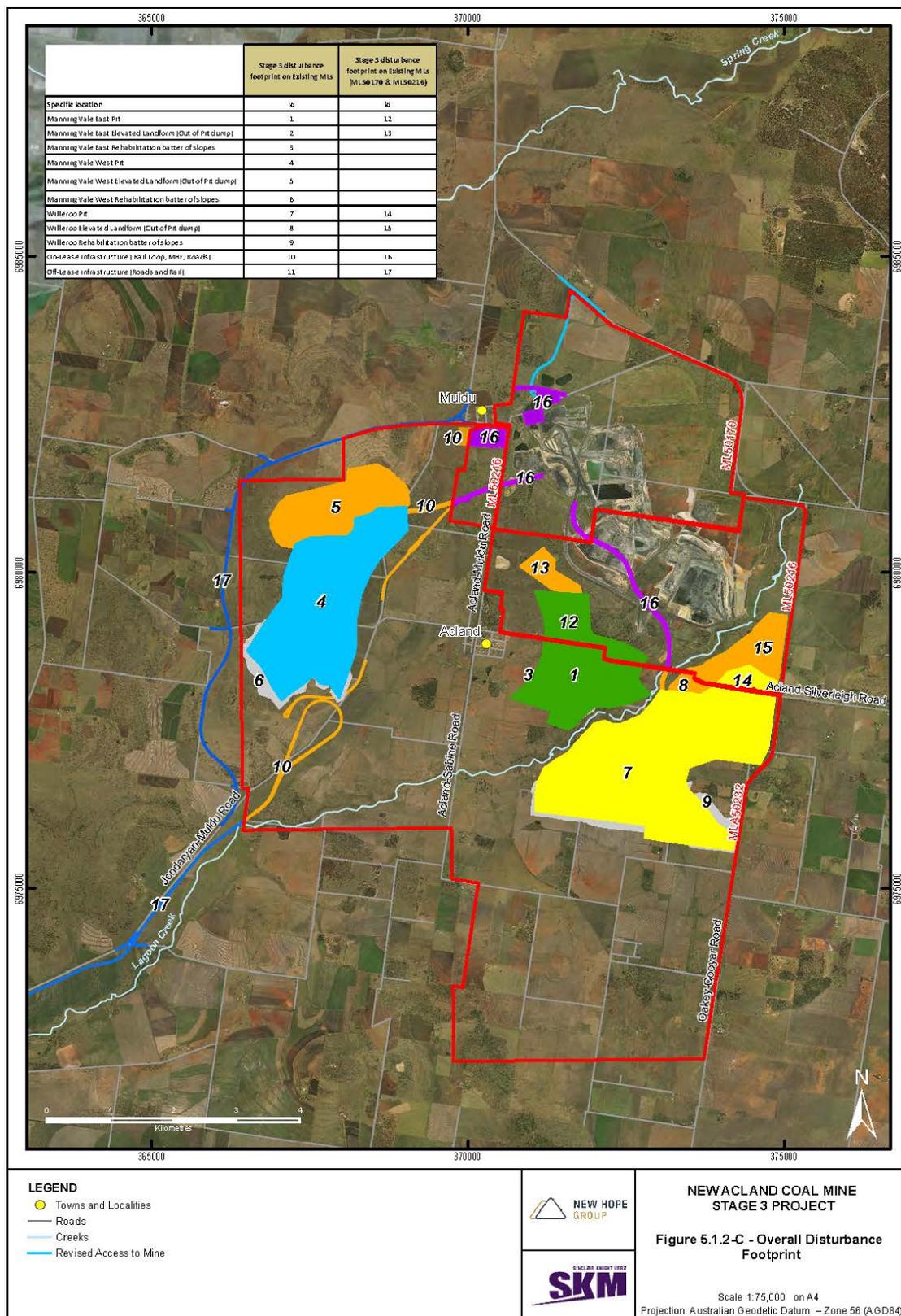
[To be revised to include the northern part of Willeroo Pit in green and the associated overburden dump in grey shading and to remove the words “Indicative Only”]

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Draft environmental authority EPML00335713 — New Acland Coal Mine

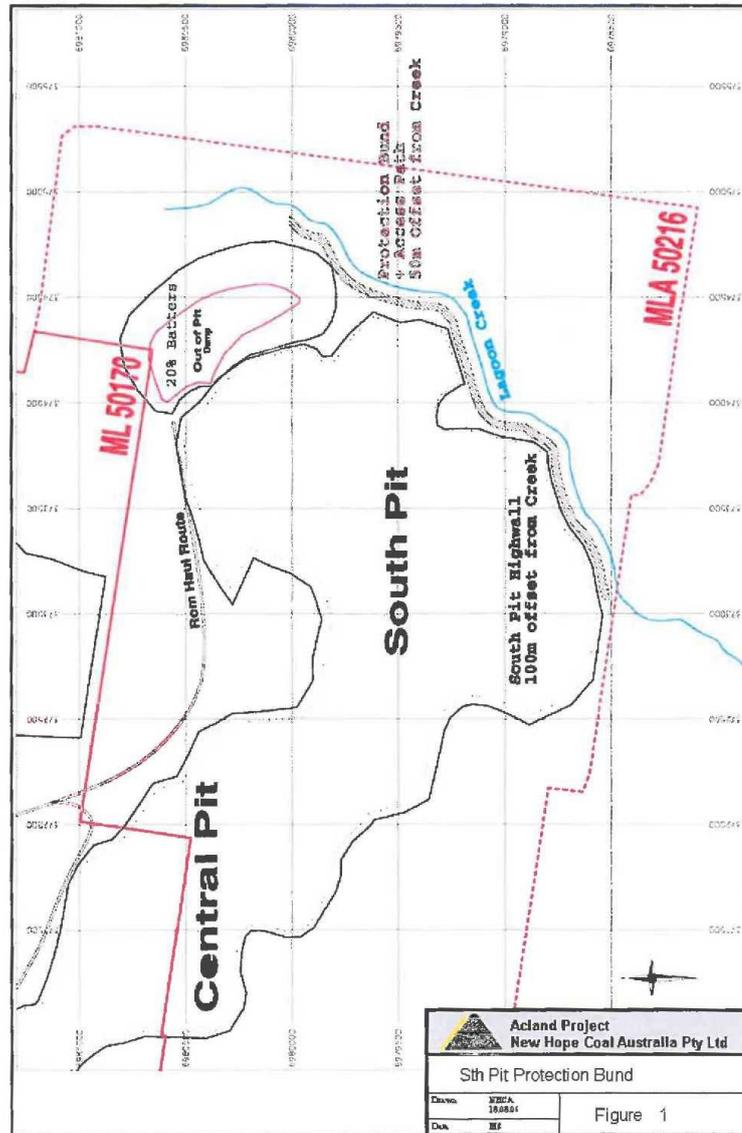
Figure 1a: New Acland Coal Mine Stage 3 Project – Overall Disturbance Footprint





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Figure 3: Lagoon Creek, buffer and levee



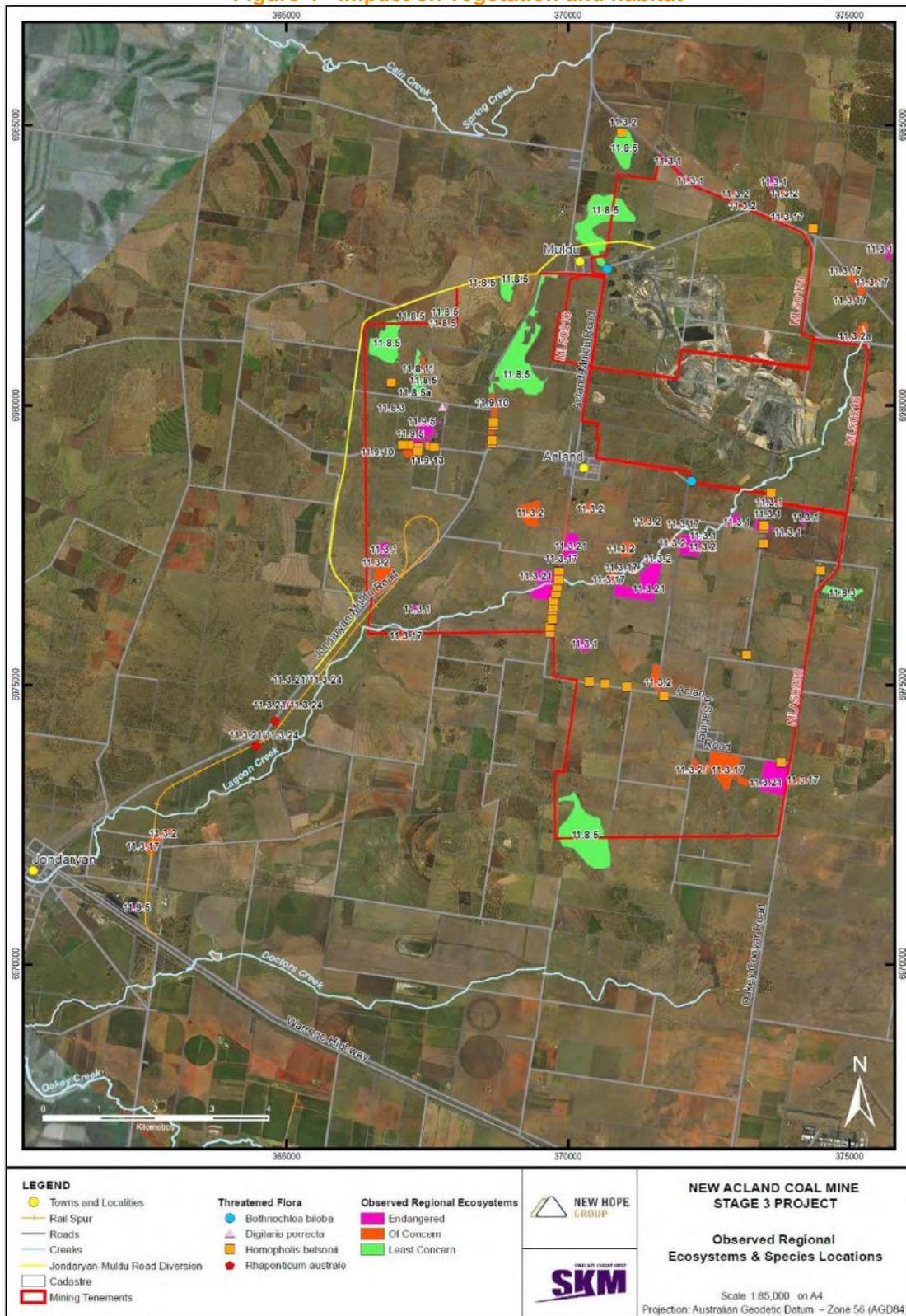
**Draft environmental authority EPML00335713 — New Acland Coal Mine**

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**Figure 4 — Impact on vegetation and habitat**

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Figure 4 - Impact on vegetation and habitat

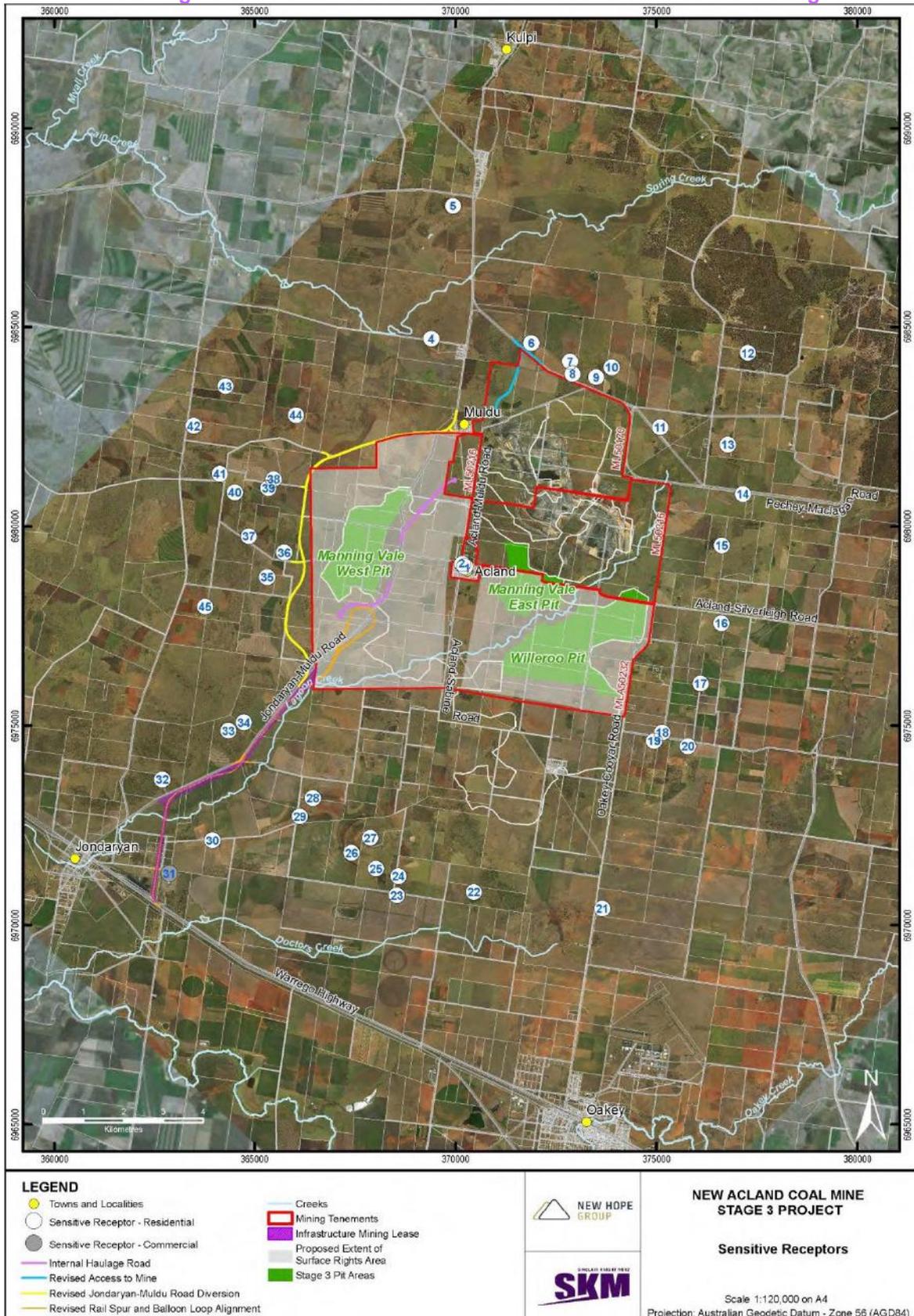


~~Figure 5 — Location of sensitive receptors~~

Figure 5 — Location of noise sensitive receptors

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Note- Figure to be amended to include the locations of noise monitoring

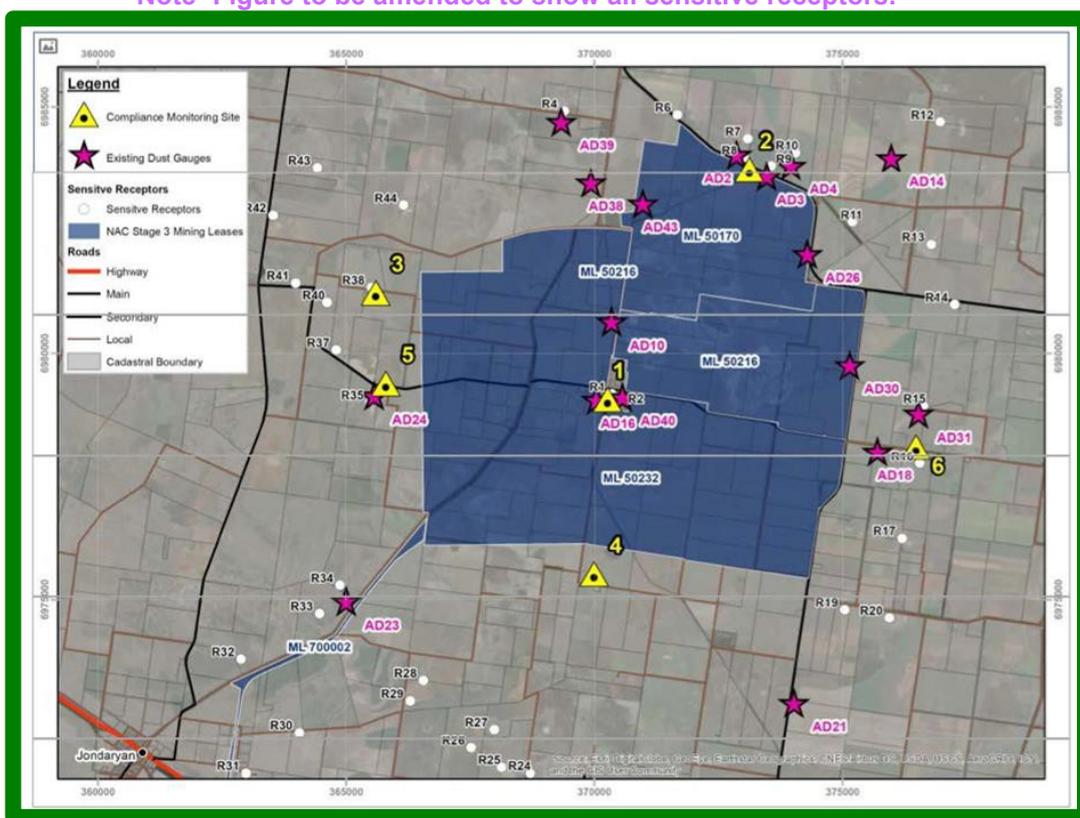


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Figure 6 — Air quality monitoring locations for the revised project (Stage 3)

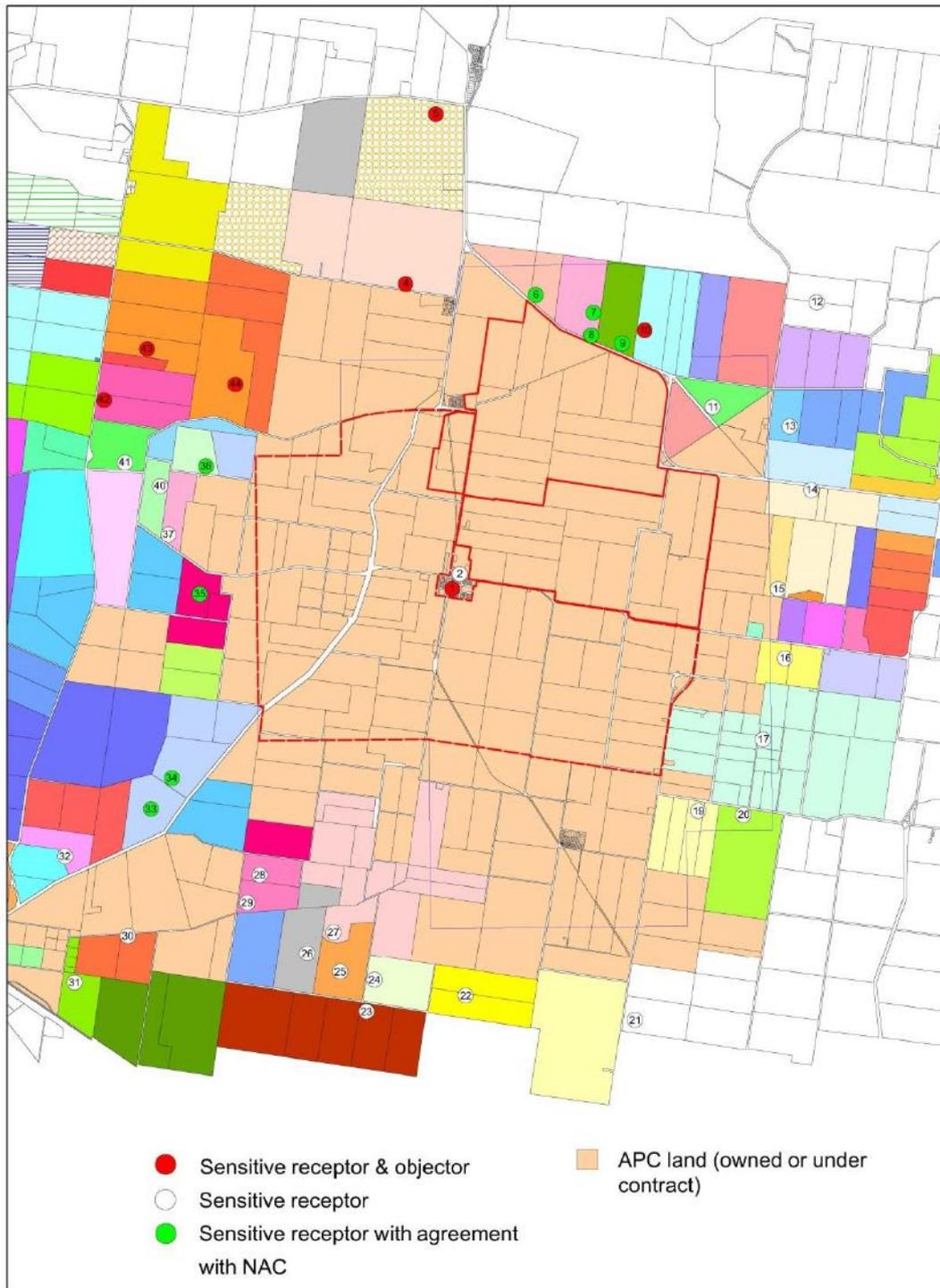
Figure 6 — Air quality monitoring locations for the revised project (Stage 3)

Note- Figure to be amended to show all sensitive receptors.



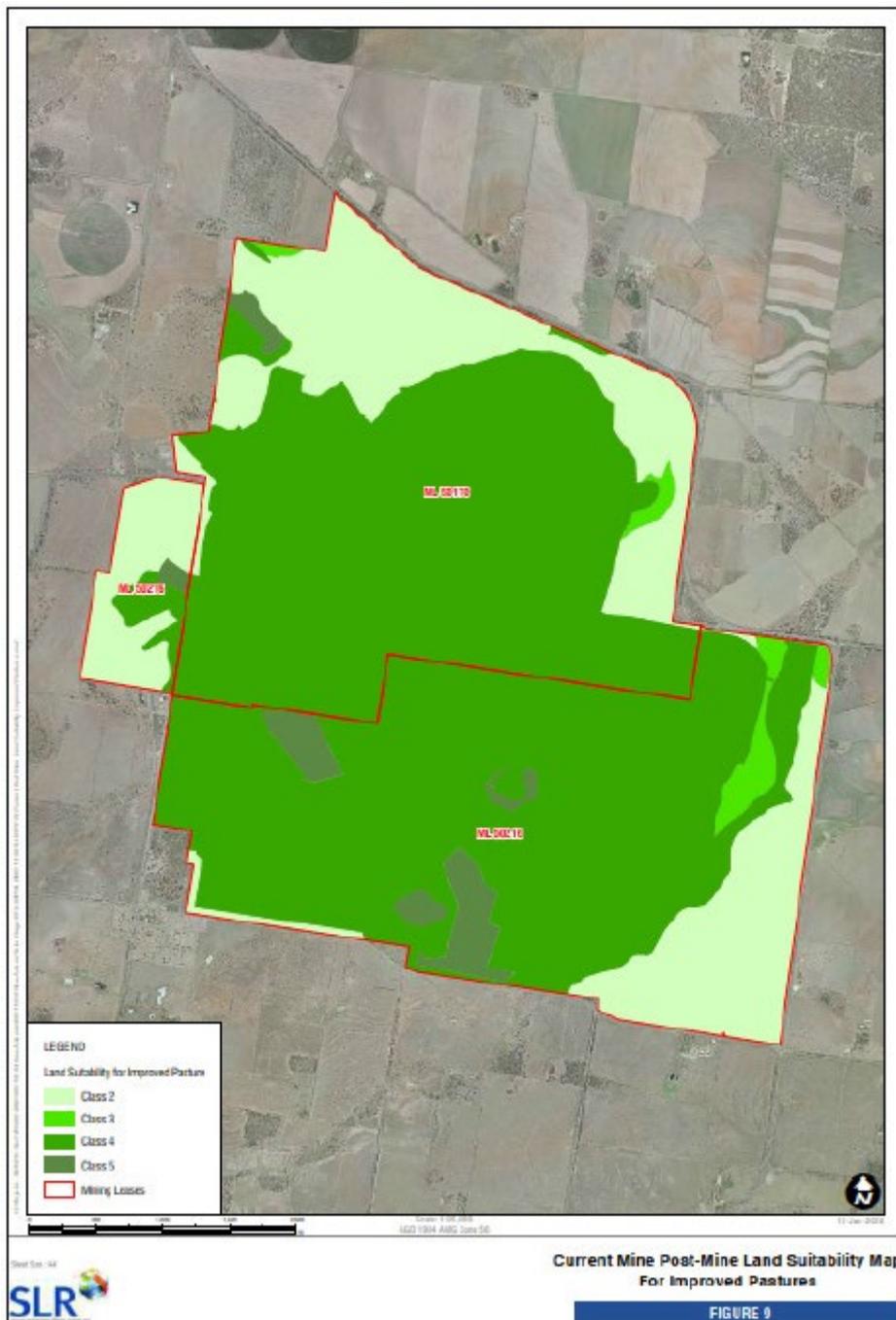
**Figure 7—Noise Sensitive Places (Mitigation)**

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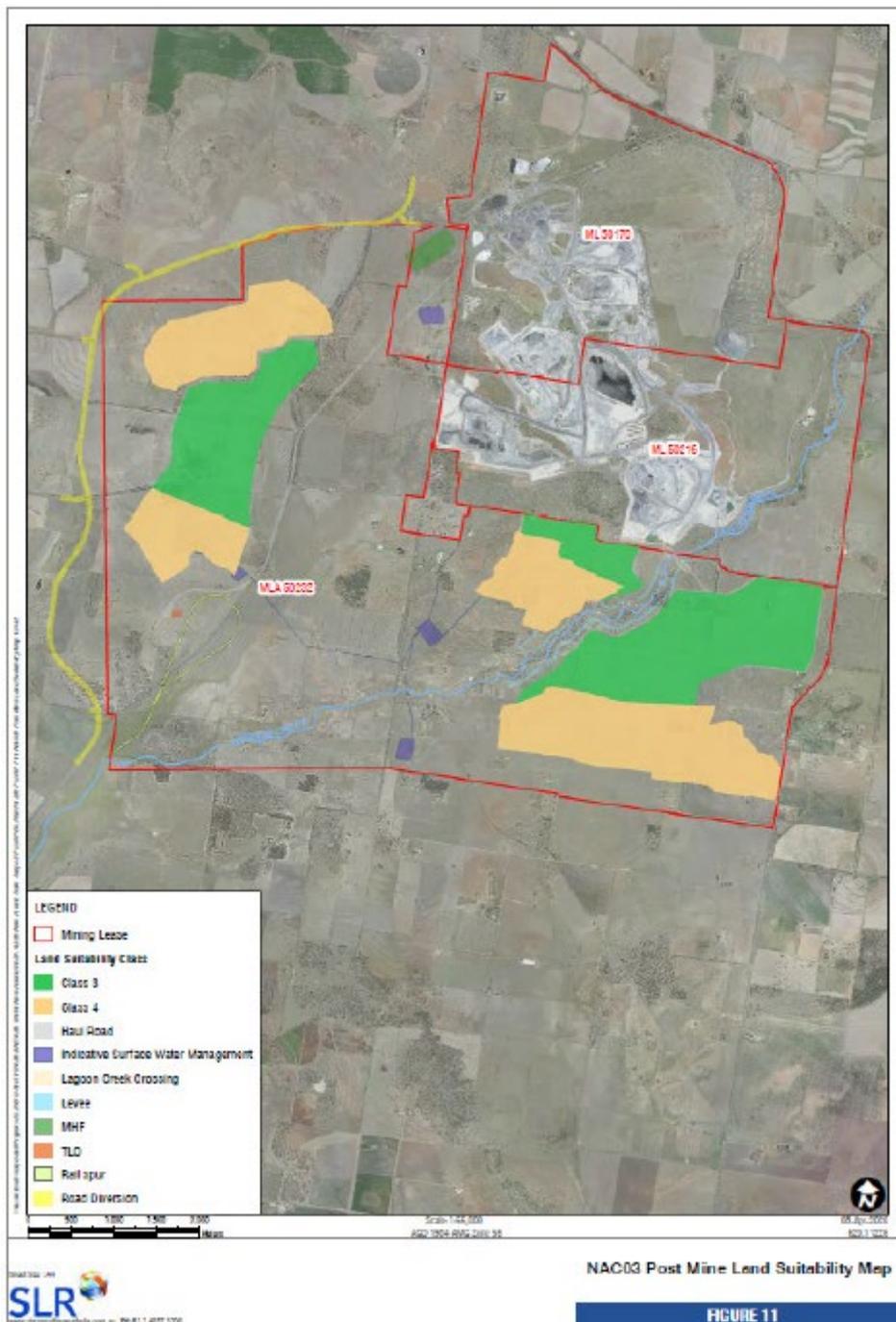
New Figure X1 – Current Mine Post Mine Land Suitability Map For Improved Pastures.

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New Figure X2 – NAC Stage 3 Post Mine Land Suitability Map

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# APPENDIX 5B - OCAA DRAFT EA (WITH TRACKING AND COMMENTS)

Department of Environment and Science

## Permit<sup>1</sup>

*Environmental Protection Act 1994*

### Draft environmental authority - New Acland Coal Mine

*This draft environmental authority is issued by the administering authority under Chapter 5 of the Environmental Protection Act 1994.*

**Permit<sup>1</sup> number: EPML00335713**

**Environmental authority takes effect: DRAFT**

Anniversary Day: **27 May**

**Environmental authority holder(s)**

| Name                    | Registered address                         |
|-------------------------|--|
| New Acland Coal Pty Ltd | 3/22 Magnolia Drive<br>BROOKWATER QLD 4300 |

### Environmentally relevant activity and location details

| Environmentally relevant activity(ies)   | Location(s)                    |
|--|--------------------------------|
| Schedule 3 13: Mining Black Coal.  | ML50170                        |
| Ancillary 8 – Chemical Storage 3: storing more than 500m <sup>3</sup> of chemicals of class C1 or C2 combustible liquids under AS 1940 or dangerous goods class 3 under subsection (1)(c).                 | ML50216<br>ML700002<br>ML50232 |
| Ancillary 31 – Mineral Processing, 2: Processing, in a year, the following quantities of mineral products other than coke, (b) more than 100,000t.   |                                |
| Ancillary 60 - Waste disposal, 1: operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1)(a) less than 50,000t.                                      |                                |
| Ancillary 63 – Sewage Treatment, 1.operating sewage treatment works, other than no-release works, with a total daily peak design capacity of— (b) more than 100 but not more than 1,500EP— (ii) otherwise. |                                |

<sup>1</sup> Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation

**Additional information for applicants**

Environmentally relevant activities

The description of any environmentally relevant activity (ERA) for which an environmental authority is issued is a restatement of the ERA as defined by legislation at the time the approval is issued. Where there is any inconsistency between that description of an ERA and the conditions stated by an environmental authority as to the scale, intensity or manner of carrying out an ERA, then the conditions prevail to the extent of the inconsistency.

An environmental authority authorises the carrying out of an ERA and does not authorise any environmental harm unless a condition stated by the authority specifically authorises environmental harm.

A person carrying out an ERA must also be a registered suitable operator under the *Environmental Protection Act 1994* (EP Act).

Contaminated land

It is a requirement of the EP Act that if an owner or occupier of land becomes aware a notifiable activity (as defined in Schedule 3 and Schedule 4) is being carried out on the land, or that the land has been, or is being, contaminated by a hazardous contaminant, the owner or occupier must, within 22 business days after becoming so aware, give written notice to the chief executive.

Signature

Date

Juliana McCosker  
Department of Environment and Science  
Delegate of the administering authority  
*Environmental Protection Act 1994*

**Enquiries:**  
Business Centre (Coal)  
Department of Environment and Science  
  
PO Box 3028  
EMERALD QLD 4720  
Phone: (07) 4987 9320  
Email: CRMining@ehp.qld.gov.au

Commented [A1]: SP change accepted by OCAA

#### **Obligations under the *Environmental Protection Act 1994***

In addition to the requirements found in the conditions of this environmental authority, the holder must also meet their obligations under the EP Act, and the regulations made under the EP Act. For example, the holder must comply with the following provisions of the EP Act:

- general environmental duty (section 319);
- duty to notify environmental harm (section 320-320G);
- offence of causing serious or material environmental harm (sections 437-439);
- offence of causing environmental nuisance (section 440);
- offence of depositing prescribed water contaminants in waters and related matters (section 440ZG); and
- offence to place contaminant where environmental harm or nuisance may be caused (section 443).

Location:           New Acland Coal Mine  
                          Muldu Road, ACLAND QLD 4401

Schedules:         Agency interest A General  
                          Agency interest B Air  
                          Agency interest C Water  
                          Agency interest D Groundwater  
                          Agency interest E Waste  
                          Agency interest F Noise  
                          Agency interest G Sewage Treatment  
                          Agency interest H Land and Rehabilitation  
                          Agency interest I Biodiversity  
                          Agency interest J Regulated Structures  
                          Agency interest K Light  
                          Agency interest L Community  
                          Agency interest Figures

**Draft environmental authority EPML00335713 — New Acland Coal Mine**

Conditions of environmental authority

| Agency interest: General |   |
|--------------------------|---|
| Condition number         | Condition   |
| A1                       | This environmental authority authorises environmental harm referred to in the conditions. Where there is no condition or this environmental authority is silent on a matter, the lack of a condition or silence does not authorise environmental harm.  |
| A2                       | <p>In carrying out the mining activity authorised by this environmental authority, the holder of this environmental authority must comply with <b>Figure 1 (Revised Project Overview — Mine Area)</b>.</p> <p><u>The maximum area authorised to be disturbed on ML50232 is 1,575ha generally as shown on Figure 1 which comprises:</u></p> <p><u>(a) pits, slope batters and out of pit dumps – 1,422ha;</u></p> <p><u>(b) the train loadout facility, the material handling facility, the Balloon Loop and the Haul road – 44ha;</u></p> <p><u>(c) surface infrastructure (being bores, roads for light vehicles, levees, culverts, hardstand areas, tracks, water storage dams, buildings and any other structures built for the purpose of mining activity) – 109ha.</u></p> <p><u>The maximum extraction area authorised by this environmental authority located on ML50216 is 21 ha, being the northern part of Willaroo Pit (area 14 shown in Figure 1a New Acland Coal Mine Stage 3 Project – Overall Disturbance Footprint).</u></p> <p><u>The maximum out of pit dump area authorised by this environmental authority located on ML50216 is 103 ha, being the out of pit dump located to the immediate north of Willaroo Pit (area 15 shown in Figure 1a New Acland Coal Mine Stage 3 Project – Overall Disturbance Footprint).</u></p> <p><u>No further extraction or out of pit dumping is authorised on ML50216 or ML50170 other than as specified in this condition.</u></p> <p><u>The boundaries of the open-cut pits mined and out-of-pit dumps constructed after the environmental authority takes effect for the Stage 3 New Acland mine project must not exceed the limits of the Manning Vale West Pit (area 4), Manning Vale East Pit (area 1) and Willaroo Pit (areas 7 and 14), and associated out-of-pit dumps (areas 5, 8 and 15), shown in Figure 1a New Acland Coal Mine Stage 3 Project – Overall Disturbance Footprint.</u></p> <p><u>No underground mining is permitted.</u></p> |
| A2a                      | The environmental authority holder is approved to extract coal at a rate of up to 5.1 million tonnes per annum (Mtpa) of <b>product coal</b> in accordance with this environmental authority.   |
| A3                       | <p>All plans, reports, <u>peer reviews</u> and programs referred to, or collected under, a condition of this environmental authority must be published on the environmental authority holder's website within one month of completion <u>and maintained for the life of the mine.</u></p> <p><u>From the commencement of the Stage 3 New Acland mine project, the Proponent shall make copies of the following publicly available on its website:</u></p>   |

**Commented [A2]:** Changes to A2 are designed to ensure the authority that is granted limits the Applicant to the four corners of the application for many reasons: 1. To grant an EA that permits something other than what is applied for would be ultra vires as it would constitute a transformation of the application (Addicoat v Fox (No 2) (1979) VR 347); 2. To provide procedural fairness to the objectors who made submissions based upon the applicant as advertised; and 3. To limit the environmental impacts of the activities to those that have been assessed.

Limiting the EA by a clear reference to the areas of extraction and overburden dumping permitted is consistent with the noise and air quality evidence – namely that those areas were the areas modelled and assessed.

Specifying the areas of disturbance, extraction and overburden dumping will avoid the uncertainties created in the past by reason of the EA not specifically confining the applicant to extracting in the pits applied for, which was then used by the Applicant as a reason why it argued that it was entitled to mine outside of those areas.

The boundaries for the pits and overburden dumps reflect the EIS material.

OCAA has adopted the higher figure for Willaroo Pit and its associated out-of-pit dump from the EIS and from the figures provided by Mr McGown on 17 November 2021.

The areas specified in the second paragraph are the same as those in the SP EA and have been taken from the areas specified in the EIS and the material provided by the Applicant in June 2021, as explained by Dr McCosker.

While the Coordinator-General included Figure 1 in the stated conditions, the Coordinator-General's evaluation report read as a whole made it clear that the application was assessed on the basis of the pits delineated in the EIS material. There is nothing in the report that indicates that the Coordinator-General intended, by inserting Figure 1, to depart from the application in the EIS. To the contrary, properly construed, the Coordinator-General's inclusion of Figure 1 must have proceeded upon the understanding that Figure 1 was consistent with the application.

The reference to no underground mining and all of the changes to this condition are consistent with the evidence of Dr McCosker.

**Commented [A3]:** SP change to 'product coal' is agreed by OCAA. The Applicant does not accept the condition at all.

**Commented [A4]:** Changes to A3 are self-explanatory. Changes to require data to be kept for the life of mine are informed by the evidence of Mr Tardio

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|                          |   |
|--------------------------|---|
|                          | <ul style="list-style-type: none"> <li>the environmental impact assessment;</li> <li>all current statutory approvals for the Stage 3 New Acland mine project;</li> <li>a complaints register, which has been de-identified, and is to be updated on a monthly basis.</li> </ul>   |
| <b>NEW Condition A3a</b> | Monthly reports required under <b>Condition 3</b> of the imposed conditions of the Coordinator-General must be completed within fourteen (14) days from the end of the reporting month.   |
| <b>A4</b>                | <p><b>Maintenance of measures, plant and equipment</b></p> <p>The holder of this environmental authority must:</p> <ol style="list-style-type: none"> <li>install all measures, plant and equipment necessary to ensure compliance with the conditions of this environmental authority;</li> <li>maintain such measures, plant and equipment in a proper and efficient condition;</li> <li>operate such measures, plant and equipment in a proper and efficient manner; and</li> <li>ensure all instruments and devices used for the measurement or monitoring of any parameter under any condition of this environmental authority are properly calibrated.</li> </ol> |
| <b>A5</b>                | <p><b>Monitoring</b></p> <p>Except where specified otherwise in another condition of this environmental authority, all monitoring data (including audio recordings from the real-time monitoring system), records or reports required by this environmental authority must be kept for the life of the mine.</p>  |
| <b>A6</b>                | Upon request from the administering authority, and in addition to any other requirements under these conditions, copies of all monitoring data, records and reports will be made available and provided to the administering authority's nominated office within 10 business days or an alternative timeframe agreed between the administering authority and the holder.  |
| <b>A7</b>                | Any management or monitoring plans, systems or programs required to be developed and implemented by a condition of this environmental authority should be reviewed for effectiveness in minimising the likelihood of environmental harm on an annual basis, and amended promptly if required, unless a particular review date and amendment program is specified in these conditions, the plan, system or program.  |
| <b>A10</b>               | <p><b>Risk management</b></p> <p>The holder of this environmental authority must develop and implement a risk management system for mining activities which mirrors the content requirement of the Standards Australia Risk Management Guidelines (AS/NZS ISO 31000:2018), or the latest edition of a Standards Australia for risk management, to the extent relevant to environmental management, prior to the commencement of mining activities.</p>  |
| <b>A11</b>               | <p><b>Third-party reporting</b></p> <p>The holder of this environmental authority must:</p> <ol style="list-style-type: none"> <li>within 1 year of the commencement of this environmental authority, obtain from an appropriately qualified independent person who has been approved by the administering authority, a report on compliance with the conditions of this environmental authority;</li> </ol>  |

**Commented [A5]:** OCAA's proposed new condition A3a is self-explanatory. There is currently no requirement for when they must be made available. The condition provides certainty.

**Commented [A6]:** The changes to A5 are consistent with Mr Tardio's evidence that being able to review the audio recording of excluded data is important for transparency.

The changes are consistent with Dr McCosker's evidence that the administering authority should be able to interrogate the audio recordings.

This addition is absolutely critical to avoid a later argument about whether or not audio recordings comprise 'monitoring data'.

**Commented [A7]:** The changes to A6 are self-explanatory

**Commented [A8]:** The changes to A7 are accepted by the Applicant.

**Commented [A9]:** The changes to A11 enables the administering authority to have more control over whether the person is sufficiently independent and appropriately qualified (noting that the audit reports will stretch across a range of disciplines).

The words "who has been approved by the administering authority" are agreed by the Applicant. OCAA also suggests the addition of "independent" noting the Applicant has various consulting experts who are not independent given their history with the mine.

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|            |  |
|------------|--|
|            | <p>b) obtain further such reports at regular intervals, not exceeding 3 yearly intervals, from the completion of the report referred to above; and</p> <p>c) provide each report to the administering authority within 90 days of its completion.</p>  |
| <b>A12</b> | <p>Where a condition of this environmental authority requires compliance with a standard, policy or guideline and the standard is amended or changed subsequent to the issue of this environmental authority, the holder of this environmental authority must:</p> <p>a) comply with the amended or changed standard, policy or guideline within 2 years of the amendment or change being made, unless a different period is specified in the amended standard or relevant legislation, or where the amendment or change relates specifically to regulated structures referred to in <b>Agency interest: Regulated Structures</b>, the time specified in the relevant condition <u>or where another period is specified in this consent</u>; and</p> <p>b) until compliance with the amended or changed standard, policy or guideline is achieved, continue to remain in compliance with the corresponding provision that was current immediately prior to the relevant amendment or change.</p> |
| <b>A15</b> | <p><b>Storage and handling of flammable and combustible liquids</b></p> <p>Spillage of all chemicals and fuels must be contained within an on-site containment system and controlled in a manner that prevents environmental harm (other than trivial harm) and maintained in accordance with Section 5.9 of AS1940 – Storage and Handling of Flammable and Combustible Liquids of 2004 (or more recent editions).</p>   |

**Commented [A10]:** Changes to A12 are required due to OCAA's proposal that any changes to the PM10 and PM2.5 standards are implemented more quickly (as per Dr Taylor's evidence). See conditions Ba.

**Commented [A11]:** Changes to Ba are as follows.

The addition of the word "limits and" is agreed between OCAA and the SP but not agreed by the Applicant.

The use of the words 'dust and particulate matter' has been accepted by OCAA but not agreed by the SP. OCAA is content with either formulation.

The words 'or contribute to' are necessary to make clear that the mine must manage emissions within the limits even if another source is also contributing to rising levels (as per the evidence of Dr Taylor).

The word 'criteria' has been replaced with 'air quality limits and nuisance limits' to reflect the wording of the table and thereby provide drafting precision.

The Applicant agrees to change 'criteria' to limit but does not agree to make it clear that this means both the air quality limits and the nuisance limits.

The PM2.5 standard is under review and expected to be changed in 2021. Notice of the change has been given so an additional 2 years, which is the default in A12 is not necessary nor desirable given the importance of PM2.5 to human health. Any changes to PM10 are likely to follow a similarly long notification period as PM2.5.

The Applicant's version includes a note about changes to the EPP air, but it is in the wrong condition (it should either be in A12 or in Ba) and it was previously a footnote relating to PM10. The footnote reference remains so the Applicant's proposal is very confusing in its intent. It is not clear if it is intended to apply to all standards.

The final para of OCAA's changes accepts the Applicant's footnote from condition B1 with changes to the introductory words to make clear which indicators it applies to.

The Applicant proposes that the measurement of air emissions be at the place or at the monitor "with any necessary adjustments for differences in location". OCAA rejects that change. The monitors should be conservatively representative. The additional words provide too much leeway for argument about exceedances. If the Applicants' changes are accepted – a clear protocol must be established and approved by the SP to determine the proposed adjustments. See proposed changes to condition B4.

**Commented [A12]:** Changes to B1 are as follows:

The words 'prior to the commencement ...' are self explanatory.

There was an unnecessary double up between the Table and the sub-paragraphs. The change is not only desirable to simplify the control but also to prevent inconsistencies – ie to prevent an inconsistency when where a change in the air quality limits in the table is made by reason of a change to the EPP.

See notes on condition Ba regarding the footnote.

| Agency interest: Air |   |
|----------------------|---|
| Condition number     | Condition   |
| <b>Ba</b>            | <p>The holder of this environmental authority must ensure that <u>dust and particulate matter</u> air-emissions generated by the mining activities do not cause <u>or contribute to exceedances of each of the criteria-air quality limits and nuisance limits in Table B1-Air Quality Limits and Monitoring requirements</u> <u>to be exceeded</u> at a sensitive place or commercial place.</p> <p>Note: the measurement of air emissions for a sensitive place or commercial place is either:</p> <p>a) at that place (if measured there); or</p> <p>b) at the monitoring location most representative (whether by reason of correlation or otherwise) of the sensitive or commercial place (where there is no measure at the sensitive or commercial place).</p> <p><u>The air quality limits for PM<sub>10</sub> and PM<sub>2.5</sub> in Table B1 must be reviewed on 1 July each year and updated in accordance with any changes to the Environmental Protection (Air) Policy 2019 (including any replacement policy as it exists from time to time), with changes to take effect from 1 January the following year.</u></p> <p><u>For all other air quality indicators listed in Table B1, for the purposes of condition A12, a change in air quality objectives contained in the Environmental Protection (Air) Policy 2019 is taken to be a change in a policy or guideline or standard.</u></p> |
| <b>B1</b>            | <p><u>Prior to the commencement of the Stage 3 New Acland mine project, all air quality indicators listed in Table B1, must be monitored at the locations and at the frequency listed in Table B1 in accordance with the following methodologies:</u></p>   |

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|           |   |
|-----------|---|
|           | <p>a) For <del>insoluble solids: dust deposition of 120 milligrams per square metre per day, averaged over 1 month, when monitored in accordance with</del> the most recent version of Standards Australia AS/NZS 3580.10.1 Methods for sampling and analysis of ambient air – Determination of particulate matter – Deposited matter – Gravimetric method;</p> <p>b) For <del>a concentration of particulate matter with an aerodynamic diameter of less than 10 micrometres (PM<sub>10</sub>); suspended in the atmosphere of 50 micrograms per cubic metre over a 24-hour averaging time<sup>†</sup> and 25 micrograms per cubic metre over a 1 year averaging time, when monitored in accordance with the most recent version of either:</del></p> <ol style="list-style-type: none"> <li>(1) Standards Australia AS/NZS 3580.9.6 Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – PM<sub>10</sub> high volume sampler with size-selective inlet – Gravimetric method; or</li> <li>(2) Standards Australia AS/NZS 3580.9.9 Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – PM<sub>10</sub> low volume sampler – Gravimetric method; or</li> <li>(3) Standards Australia AS 3580.9.8 Methods for sampling and analysis of ambient air – Determination of suspended particulate matter – PM<sub>10</sub> continuous direct mass method using a tapered element oscillating microbalance analyser;</li> </ol> <p>c) For <del>TSP: a concentration of particulate matter suspended in the atmosphere of 80 micrograms per cubic metre over a 24-hour averaging time and 90 micrograms per cubic metre over a 1 year averaging time, when monitored in accordance with</del> the most recent version of AS/NZS 3580.9.3:2003 Methods for sampling and analysis of ambient air- Determination of suspended particulate matter – Total suspended particulate matter (TSP) – High volume sampler gravimetric method.</p> <p>d) For <del>a concentration of particulate matter with an aerodynamic diameter of less than 2.5 micrometres (PM<sub>2.5</sub>); suspended in the atmosphere of 25 micrograms per cubic meter over a 24-hour averaging time and 8 micrograms per cubic metre over a 1 year averaging time, when monitored in accordance with the most recent version of:</del></p> <ol style="list-style-type: none"> <li>(1) <del>the most recent version of</del> Standards Australia AS/NZS 3580.9.12 Methods for sampling and analysis of ambient air, Determination of suspended particulate matter – PM<sub>2.5</sub> beta attenuation monitors; or</li> <li>(2) <del>the most recent version of</del> Standards Australia AS/NZS 3580.9.13 Methods of sampling and analysis of ambient air, Determination of suspended particulate matter – PM<sub>2.5</sub> continuous direct mass method using a tapered element oscillating microbalance monitor.</li> </ol> <p><i><sup>†</sup>These limits are based upon relevant air quality objectives contained in the Environmental Protection (Air) Policy 2019 and may be automatically amended to reflect any amendment or replacement of the relevant air quality objective in the Environmental Protection (Air) Policy 2019</i></p> |
| <b>B2</b> | <p>If monitoring indicates the potential for exceedance of the relevant limits in <b>Condition Ba</b> then the environmental authority holder must immediately implement dust abatement measures, <u>including modifying or suspending operations</u>, to avoid exceeding the relevant limits.</p>  |
| <b>B3</b> | <p><b>Air emissions management</b></p>  |

Commented [A13]: Words added to B2 so there can be no debate about this later.

Commented [A14]: OCAA accepts SP change to B3.

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|                              | <p>An Air Emissions Management Plan must be developed by a suitably qualified and experienced person in relation to air emissions and implemented for all stages of mining. The Air Emissions Management Plan must be submitted to the administering authority for review and comment <b>within 3 months upon of the grant of ML50232 and ML700002</b>, and at intervals <b>not exceeding two (2) years thereafter</b>.</p>   |                              |                            |                  |                        |                             |               |                         |                            |               |            |                             |               |
|------------------------------|---|------------------------------|----------------------------|------------------|------------------------|-----------------------------|---------------|-------------------------|----------------------------|---------------|------------|-----------------------------|---------------|
| <p><b>B4</b></p>             | <p><b>Air emissions management</b></p> <p>The Air Emissions Management Plan must incorporate a program for continuous improvements for the management of dust resulting from mining operations with respect to, but not limited to:</p> <p>a) <u>monitoring locations acting as and continuing to act as <b>representative sites for sensitive places</b> (if there <del>be-is</del> no monitor at a particular sensitive receptor place);</u></p> <p>a)b) <u>if there is no monitor at a sensitive place, a protocol for correlating the measured levels at the monitoring site with the likely levels at the sensitive place, including a detailed description of how an exceedance at a sensitive place is to be identified from the measurement taken at the monitoring station;</u></p> <p>b)c) <u>The collection <b>and monitoring</b> of air quality and meteorological data in accordance with <b>Table B1: Air quality limits and monitoring requirements</b>;</u></p> <p>d) <u>PM<sub>10</sub> and TSP trend monitoring<sup>1</sup>, <b>to investigate complaints and to check the correlation of the real time monitors with sensitive receptor locations</b><sup>2</sup>;</u></p> <p>e) <u><del>locations around the site</del> for a minimum period of 3 years;</u></p> <p>e) <u>A trigger action response plan that requires the environmental authority holder to:</u></p> <ul style="list-style-type: none"> <li>• <u>avoid exceedances of each of the air quality limits and nuisance limits specified in <b>Table B1</b> at a sensitive place or commercial place caused or contributed to by mining activities; and</u></li> <li>• <u>investigate, mitigate and manage <b>dust and particulate matter emissions generated by the mining activities so that the limits in Table B1</b> are met; and</u></li> <li>• <u>investigate, mitigate and manage the following air quality indicators when monitoring indicates exceedance of the following air quality triggers caused or contributed to by mining activities at any sensitive place or commercial place:</u></li> </ul> <table border="1"> <thead> <tr> <th><u>Air Quality Indicator</u></th> <th><u>Air Quality Trigger</u></th> <th><u>Frequency</u></th> </tr> </thead> <tbody> <tr> <td><u>PM<sub>10</sub></u></td> <td><u>120 µg/m<sup>3</sup></u></td> <td><u>1 hour</u></td> </tr> <tr> <td><u>PM<sub>2.5</sub></u></td> <td><u>60 µg/m<sup>3</sup></u></td> <td><u>1 hour</u></td> </tr> <tr> <td><u>TSP</u></td> <td><u>250 µg/m<sup>3</sup></u></td> <td><u>1 hour</u></td> </tr> </tbody> </table> <p><del>-TSP caused by mining activities at any sensitive place or commercial place when monitoring indicates exceedance of 80 micrograms per cubic metre over a 24-hour averaging time;</del></p> <p>e)f) <u>A forecasting system that provides daily predictions of upcoming</u></p> | <u>Air Quality Indicator</u> | <u>Air Quality Trigger</u> | <u>Frequency</u> | <u>PM<sub>10</sub></u> | <u>120 µg/m<sup>3</sup></u> | <u>1 hour</u> | <u>PM<sub>2.5</sub></u> | <u>60 µg/m<sup>3</sup></u> | <u>1 hour</u> | <u>TSP</u> | <u>250 µg/m<sup>3</sup></u> | <u>1 hour</u> |
| <u>Air Quality Indicator</u> | <u>Air Quality Trigger</u>  | <u>Frequency</u>             |                            |                  |                        |                             |               |                         |                            |               |            |                             |               |
| <u>PM<sub>10</sub></u>       | <u>120 µg/m<sup>3</sup></u>   | <u>1 hour</u>                |                            |                  |                        |                             |               |                         |                            |               |            |                             |               |
| <u>PM<sub>2.5</sub></u>      | <u>60 µg/m<sup>3</sup></u>  | <u>1 hour</u>                |                            |                  |                        |                             |               |                         |                            |               |            |                             |               |
| <u>TSP</u>                   | <u>250 µg/m<sup>3</sup></u>   | <u>1 hour</u>                |                            |                  |                        |                             |               |                         |                            |               |            |                             |               |

**Commented [A15]:** Changes to B4 are as follows:

The new SP text highlighted in yellow is accepted by OCAA.

It is critically important that the Applicant has a transparent process for identifying and reporting on exceedances at sensitive receptor locations where there is no monitor. This is especially important as a safeguard against the Applicant taking the point that the location is not at the sensitive receptor as a defence to an allegation of non-compliance with the EA conditions.

The words in B4(b) are even more important if the Applicant's changes to Ba(b) are accepted as it will require a protocol to be developed in advance to determine any such adjustments.

The old para (c) appeared to be a double up and was potentially inconsistent with the Table – the new para c amendments now ensure there are no double ups or inconsistencies.

B4(d) reflects Dr Taylor's evidence about the role of trend monitors.

B4(e) seeks to consolidate the disparate parts of the condition that appeared to relate to the TARP and includes the air quality indicators, which Dr Taylor and Mr Welchman agreed could go in the AEMP.

B4(g) required the AEMP to set out the content of the monthly compliance reports, with some minimum requirements.

B4(h) is consistent with Dr Taylor's evidence.

B4(i) is consistent with Dr Taylor's evidence about the desirability of input from the community.

B4(l) is consistent with Dr Taylor's evidence and is critical in terms of the administering authority being able to investigate complaints, as per the following new condition.

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|                                 | <p>meteorological conditions in order to identify adverse meteorological conditions likely to produce elevated levels of dust including PM<sub>10</sub> and PM<sub>2.5</sub> at a sensitive place or commercial place due to the mining activities;</p> <p>g) <del>A dust control strategy which activates a timely implementation of dust control management actions aimed to avoid or minimise elevated levels of dust including PM<sub>10</sub> at a sensitive place or commercial place due to mining activities; The content of the monthly compliance reports required under Condition 3 of the imposed conditions of the Coordinator-General, including:</del></p> <ul style="list-style-type: none"> <li><del>• the frequency and cause of any exceedances of each of the air quality limits and nuisance limits in Table B1;</del></li> <li><del>• the environmental authority holder's response to any exceedances and complaints;</del></li> <li><del>• the frequency of any exceedances of the air quality indicators in Condition B4 and the environmental authority holder's response to any exceedances.</del></li> </ul> <p>e) —</p> <p>h) <del>A protocol for an audit of data records to check for accuracy;</del></p> <p>i) <del>Annual review of the Air Emissions Management Plan by an independent and suitably qualified and experienced person who has been approved by the administering authority including:</del></p> <ul style="list-style-type: none"> <li><del>• a review of the its adequacy and effectiveness of the Air Emissions Management Plan in avoiding and minimising air emissions and dust at a sensitive place or commercial place,</del></li> <li><del>• a review of any complaints received in the preceding year and the response of the environmental authority holder to those complaints, and</del></li> <li><del>• a process by which input from sensitive receptors is obtained, responded to and reported on as part of the review.;</del></li> </ul> <p>f)j) <del>A protocol and register for the recording of requests and installation of first flush diverter systems as required by Condition B8; and</del></p> <p>k) <del>A protocol for the transport of basalt material; and-</del></p> <p>l) <del>A protocol for keeping of records of mining operations on an hourly basis including operational machinery, material type and quantity handled, location, routes driven, mitigation employed and other relevant detail to enable prompt and efficient investigation of adverse events.</del></p> <p><sup>1</sup> Trend monitoring <del>as required by Condition B4(c)</del> can be undertaken using different instruments and methods from those specified in Table B1: Air quality monitoring requirements.</p> |
| <p><b>New condition B4a</b></p> | <p><del>Information recorded by the real time air emissions monitoring program, including records of mining operations on an hourly basis, must be made available for investigation by the administering authority upon request.</del></p>   |
| <p><b>B5</b></p>                | <p>Within <b>twenty (20) business days</b> of receiving comments from the administering authority as required by <b>Condition B3</b>, the Air Emissions Management Plan must be updated by a suitably qualified and experienced person in relation to air emissions</p>  |

**Commented [A16]:** OCAA's proposed new condition B4a is consistent with Dr Taylor's evidence. Such records are important for compliance investigations. This is critical in circumstances where the evidence establishes that it can be a complex task to determine whether an exceedance was from the mine. It is critical to ascertaining compliance with conditions Ba and B2.

**Commented [A17]:** B5 and B3 must be read together. There was no requirement for the administering authority to approve the plan. The Applicant has accepted this new requirement, but the SP has not accepted the change.

The Applicant has not accepted that the plan must be approved prior to the commencement of Stage 3. Instead, the Applicant proposes that condition B1 is modified to require monitoring to commence "Prior to the commencement of disturbance activities for pits or out of pit dumps for the Stage 3 mining project mining activities ..." Even if the Court accepts that wording (which is inherently less certain), there should be a commensurate requirement that the plan also be approved prior to that time.

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|                  | <p>having regard to the comments, and submitted to the administering authority- <del>for approval.</del></p> <p><u>The administering authority must approve the initial Air Emissions Management Plan prior to the commencement of the Stage 3 New Acland mine project.</u></p>   |
| <p><b>B6</b></p> | <p>The <u>air quality monitoring locations requirements</u> listed in <b>Table B1: Air quality limits and monitoring requirements</b> must be reviewed by <u>an independent third party who is a</u> suitably qualified and experienced person(s) in relation to air emissions <u>and who has been approved by the administering authority</u> and a report must be provided to the administering authority within <b>two (2) years upon the grant of ML50232 and ML700002</b>, and at intervals not exceeding <b>two (2) years</b> thereafter. The review must include:</p> <ul style="list-style-type: none"> <li>a) <u>The effectiveness of the monitoring network including the appropriateness of the monitoring locations to act as suitable representative sites for sensitive places (if there is no monitor at a particular sensitive place) as determined by modelling and monitoring;</u></li> <li><del>b) The frequency and cause of any exceedances of air quality objectives measured by the monitoring program over a period of at least two (2) years;</del></li> <li><del>b) Dust complaints;</del></li> <li><del>c) Future progression of the mining activities;</del></li> <li><del>d) Locations of sensitive places-receptors relative to the existing and proposed mining activities; and</del></li> <li><del>e) Mining operating modes; and</del></li> <li>f) <u>A process for seeking feedback from sensitive receptors on their experiences of any air quality impacts arising from the mining activities.</u></li> </ul> |

**Commented [A18]:** The Applicant's changes to B6 seek to change this condition from a condition about the monitoring locations/network to a condition that permits a wholesale review of the monitoring program in Table B1, including not only the locations but also the 'parameters' (which leaves room for debate as to whether the limits and frequency are also up for debate). That change is absolutely unacceptable to OCAA as it allows argument about whether the critical parameters of the EA can be amended without a process for third party review or scrutiny.

OCAA's changes seek to limit the changes to the monitoring program in Table B1 to changes to the location of monitors and to make clear that the real intent of the condition is to make sure the locations remain as suitable representative locations.

OCAA has accepted in part the wording of the SP sub-para (a) (instead of the sub-para (a) that OCAA originally proposed) in an effort to try to reach some common ground.

The part of the condition which relates to reporting on frequency and cause of exceedances could go into the annual review of the AEMP but is also dealt with in the monthly reporting requirements. It is not particularly relevant to the question of the location of the monitors or effectiveness of the network.

A process that allows feedback from residents is important – especially if residents feel that the monitors are not capturing the dust that they are experiencing at their homes.

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| <p><b>New condition B6a</b></p> | <p>If the review required by <b>Condition B6</b> recommends a change to the air quality monitoring program locations in <b>Table B1</b>, and that change is approved by the administering authority, then the change may be revised implemented within 2 months of that approval. where recommended in a revised Air Emissions Management Plan provided pursuant to <b>Condition B3</b> or as a result of the review in <b>Condition B6</b> and with the approval of the administering authority. Any additional monitors recommended in a revised Air Emissions Management Plan must be installed and must be operational as soon as practicable after receiving approval and, in the case of an approval following a revised Air Emissions Management Plan pursuant to <b>Conditions B3 b) or B6 b)</b>, prior to the environmental authority holder producing more than 5.1 million tonnes (Mt) of product coal per calendar year.</p>   |
| <p><b>B7</b></p>                | <p>All continuously monitored parameters required by <b>Table B1: Air quality limits and monitoring requirements</b> and the forecasting system required by <b>Condition B4</b> must be made publicly available online and in real-time for the life of the mine, presented:</p> <p>a) spatially; and</p> <p>b) in a way that shows whether the limits in <b>Table B1: Air quality limits and monitoring requirements</b> have been exceeded. Within 5 business days of any such exceedance the environmental authority holder must place online a report outlining whether the exceedance is attributable to the mine.</p> <p><b>The following components must be included on the public website:</b></p> <p>a) <b>Map of Table B1 air quality monitoring locations;</b></p> <p>b) <b>Real-time data from each monitoring location as follows:</b></p> <ul style="list-style-type: none"> <li>• real-time rolling one hour average across all sites that can be drilled into for each location to provide;</li> <li>• real-time short term (5-6min) monitoring data on rolling 3 hour basis;</li> <li>• real-time rolling one hour average data on 24 hour basis;</li> <li>• links to historical data on one hour basis; and</li> <li>• links to historical 24 hour data.</li> </ul> <p>c) <b>Timeseries graph for each monitoring location showing the most recent monthly dust deposition rate;</b></p> <p>d) <b>Summary of meteorological conditions at the Acland site weather station, including:</b></p> <ul style="list-style-type: none"> <li>• <b>Wind speed;</b></li> <li>• <b>Wind direction;</b></li> <li>• <b>Frequency of winds in the past 24 hours in the form of a wind rose;</b></li> <li>• <b>Most recently available site relevant weather forecast;</b></li> <li>• <b>Estimate of the contribution of different wind directions to the ambient concentration in the form of a dust rose at each monitoring site;</b></li> </ul> <p>e) <b>Historical download page to allow user to download monthly reports containing validated measurements of dust and meteorological conditions</b></p> |

**Commented [A19]:** OCAA's new condition B6a has been adapted from the Applicants condition but have some very important differences.

It requires changes to the monitoring locations to be approved by the administering authority, and then implemented within a specified time period.

As set out above, the Applicant's condition would allow the whole monitoring program to be revised without the input of objectors, including changing the air quality limits. That is a completely unacceptable and would totally change the nature of the approval granted from that proposed by NAC in its March version of the EA, upon which OCAA's grounds proceeded, namely that the limits were locked in place.

The Applicant proposes a process for review of the AEMP and location of the monitors in circumstances where the EA holder proposes to process more than 5.1Mtpa. OCAA's primary position is that the limit should be an absolute limit, and the Applicant should have to seek a formal amendment if it seeks to increase the volume. Even if the Court does not accept that recommendation, a lower level of monitoring ought not be permitted for the lower level of processing given the air quality limits are still likely to be exceeded at sensitive places even at those lower limits.

**Commented [A20]:** B7(b) is consistent with Mr O'Dwyer's evidence that it would take from hours to days to complete: Affidavit of Mr O'Dwyer at [15] p 7 Exhibit 16, NAC.0010.

This provision is important for transparency so that the affected residents are told by NAC whether an exceedance was as a result of the mine or otherwise. It is important that the information is provided in the timely way so that the residents are able to review and dispute the reasons given for the exceedance, while the circumstances surrounding the exceedance are still fresh in their minds.

The remaining changes are from the AEMP and Dr Taylor's evidence.

The dot points under the second B7(b) are common ground with the SP and were adopted by Dr McCosker based on the evidence of Dr Taylor and on the understanding that the parameters were 'common ground' between the experts (T9-21, lines 13-26) and based upon her understanding of other real-time monitoring systems.

The words highlighted blue are accepted by the Applicant.

The Applicant does not even accept the remaining words despite the fact that they come from its own AEMP. The Applicant does not even accept a requirement that the public should be able to access historical data or any of the fine detail that would enable them to form their own views about whether the mine may have been responsible for an exceedance. There is no reason not to require this information as a condition.

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|  | <p><u>recorded by the monitoring system assessed against the air quality limits contained within Table B1. Valid dust measurements will be reported as 24-hour averages.</u></p> <p><u>f) Downloadable, unverified dust data for the monitoring locations for the period from the end of the most recent monthly report to the latest available dust information.</u></p> <p><u>g) Information page (or fact sheets) that includes instructions on how to read a wind rose, how to read a dust rose, definitions of TSP, PM10 and PM2.5 and other dust metrics.</u></p> |
|--|---|

Table B1: Air quality limits and monitoring requirements

| Monitoring location* | Air quality indicator                          | Instrument                  | Frequency           | Air quality limit   | Nuisance limit                        | Monitoring method                                    |
|----------------------|--|-----------------------------|---------------------|---|---------------------------------------|--|
| 1,2 (Acland)         | PM <sub>2.5</sub>                              | BAM or TEOM                 | Continuous          | 25µg/m <sup>3</sup><br>(24 hr avg)<br>8µg/m <sup>3</sup><br>(annual)  |                                       | AS/NZS<br>3580.9.12:2013<br>AS/NZS<br>3580.9.13:2013 |
|                      | PM <sub>10</sub>                               | TEOM                        | Continuous          | 50µg/m <sup>3</sup><br>(24 hr avg)<br>25µg/m <sup>3</sup><br>(annual) |                                       | AS 3580.9.8-<br>2008                                 |
|                      | TSP  | Hi-Vol Sampler <sup>^</sup> | 24hr,<br>1 day in 6 | 90µg/m <sup>3</sup><br>(annual)                                       | 80µg/m <sup>3</sup><br>(24 hr<br>avg) | AS/NZS<br>3580.9.3:2003                              |
|                      | TSP# <sup>^</sup>                              | Modified TEOM# <sup>^</sup> | Continuous          | 90µg/m <sup>3</sup><br>(annual)                                       | 80µg/m <sup>3</sup><br>(24 hr<br>avg) | Modified TEOM  |
|                      | Insoluble solids                               | Dust gauge                  | Monthly             | 120mg/m <sup>2</sup> /<br>day   | 120mg/m <sup>2</sup><br>/day          | AS/NZS<br>3850.10.1:2003                             |
|                      | Wind speed and direction <u>at 10m</u>         |                             | Continuous          |   |                                       | AS 3580:14-<br>2011                                  |
|                      | Temperature 2m and 10m<br>Temperature gradient |                             | Continuous          |   |                                       | AS 3580:14-<br>2014                                  |

**Commented [A21]:** OCAA accepts the SP's proposed monitoring locations in Table B1 with 2 additions:

1. Adding 'at 10m' to the requirement to monitor wind speed and direction in line with the evidence of Dr Taylor; and
2. Additional of a TSP monitoring under a modified TEOM instrument which based on the evidence of John Taylor is necessary to calibrate the TSP readings to the west of the mine (JER Air Quality, Table 8 and associated footnote)

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| Monitoring location*  | Air quality indicator | Instrument                  | Frequency           | Air quality limit   | Nuisance limit                     | Monitoring method                             |
|---|-----------------------|-----------------------------|---------------------|---|------------------------------------|---|
|   | Precipitation         |                             | Continuous          |   |                                    | AS 3580:14-2014                               |
|   | Relative Humidity     |                             | Continuous          |   |                                    | AS 3580:14-2014                               |
|   | Solar Radiation       |                             | Continuous          |   |                                    | AS 3580:14-2014                               |
|   | Net Radiation         |                             | Continuous          |   |                                    | AS 3580:14-2014                               |
|   | Evaporation           |                             |                     |   |                                    | Measured or calculated                        |
| 7, 8 (or an alternative location to the north of the Stage 3 New Acland mine identified in the Air Emissions Management Plan developed pursuant to condition B3). | PM <sub>10</sub>      | TEOM                        | Continuous          | 50µg/m <sup>3</sup><br>(24 hr avg)<br>25µg/m <sup>3</sup><br>(annual) |                                    | AS/NZS 3580.9.8-2008                          |
|   | TSP                   | Hi-Vol Sampler <sup>^</sup> | 24hr,<br>1 day in 6 | 90µg/m <sup>3</sup><br>(annual)                                       | 80µg/m <sup>3</sup><br>(24 hr avg) | AS/NZS 3580.9.3:2003                          |
|   | Insoluble solids      | Dust gauge                  | Monthly             | 120mg/m <sup>3</sup> /<br>day   | 120mg/m <sup>3</sup> /<br>day      | AS/NZS 3580.10.1:2003                         |
| 16 (East)   | PM <sub>2.5</sub>     | TEOM or BAM                 | Continuous          | 25µg/m <sup>3</sup> (2<br>4 hr avg)<br>8µg/m <sup>3</sup><br>(annual) |                                    | AS/ANZ 3580.9.12-2013<br>AS/ANZ3580.9.13:2013 |
|   | PM <sub>10</sub>      | TEOM                        | Continuous          | 50µg/m <sup>3</sup><br>(24 hr avg)<br>25µg/m <sup>3</sup><br>(annual) |                                    | AS 3580.9.8-2008                              |
|   | TSP                   | Hi-Vol Sampler <sup>^</sup> | 24hr,<br>1 day in 6 | 90µg/m <sup>3</sup><br>(annual)                                       | 80µg/m <sup>3</sup><br>(24 hr avg) | AS/NZS 3580.9.3:2003                          |
|   | TSP# <sup>^</sup>     | Modified TEOM# <sup>^</sup> | Continuous          | 90µg/m <sup>3</sup><br>(annual)                                       | 80µg/m <sup>3</sup><br>(24 hr avg) | Modified TEOM                                 |
|   | Insoluble solids      | Dust gauge                  | Monthly             | 120mg/m <sup>2</sup> /<br>day   | 120mg/m <sup>2</sup> /<br>day      | AS/NZS 3850.10.1:2003                         |
|   | Wind speed and        |                             | Continuous          |   |                                    | AS 3580:14-2011                               |

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| Monitoring location*  | Air quality indicator                             | Instrument                        | Frequency           | Air quality limit   | Nuisance limit                            | Monitoring method                              |
|---|---|-----------------------------------|---------------------|---|---|--|
|   | direction <u>at 10m</u>                           |                                   |                     |   |   |  |
|   | Temperature<br>2m and 10m<br>Temperature gradient |                                   | Continuous          |   |   | AS 3580:14-2014                                |
|   | Precipitation                                     |                                   | Continuous          |   |   | AS 3580:14-2014                                |
|   | Relative Humidity                                 |                                   | Continuous          |   |   | AS 3580:14-2014                                |
| 38, 39 (or an alternative location to the north-west of the Stage 3 New Acland mine identified in the Air Emissions Management Plan<br>Developed pursuant to Condition B3). | PM <sub>10</sub>                                  | TEOM                              | Continuous          | 50µg/m <sup>3</sup><br>(24 hr avg)<br>25µg/m <sup>3</sup><br>(annual) |   | AS/NZS 3580.9.8-2008                           |
|   | PM <sub>2.5</sub>                                 | BAM or TEOM                       | Continuous          | 25µg/m <sup>3</sup><br>(24 hr avg)<br>8µg/m <sup>3</sup><br>(annual)  |   | AS/NZS 3580.9.12-2013<br>AS/NZS 3580.9.13-2013 |
|   | TSP   | Hi-Vol Sampler <sup>^</sup>       | 24hr,<br>1 day in 6 | 90µg/m <sup>3</sup><br>(annual)                                       | 80µg/m <sup>3</sup><br>(24 hr avg)        | AS/NZS 3580.9.3-2003                           |
|   | <u>TSP#<sup>^</sup></u>                           | <u>Modified TEOM#<sup>^</sup></u> | <u>Continuous</u>   | <u>90µg/m<sup>3</sup><br/>(annual)</u>                                | <u>80µg/m<sup>3</sup><br/>(24 hr avg)</u> | <u>Modified TEOM</u>                           |
|   | Insoluble solids                                  | Dust gauge                        | Monthly             | 120mg/m <sup>2</sup> /<br>day   | 120mg/m <sup>2</sup> /<br>day             | AS/NZS 3850.10.1-2003                          |
|   | Wind speed and direction <u>at 10m</u>            |                                   | Continuous          |   |   | AS 3580:14-2011                                |
|   | Temperature<br>2m and 10m<br>Temperature gradient |                                   | Continuous          |   |   | AS 3580:14-2014                                |
|   | Precipitation                                     |                                   | Continuous          |   |   | AS 3580:14-2014                                |

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| Monitoring location*   | Air quality indicator | Instrument                  | Frequency           | Air quality limit   | Nuisance limit                     | Monitoring method     |
|--|-----------------------|-----------------------------|---------------------|---|------------------------------------|-----------------------|
|  | Relative Humidity     |                             | Continuous          |   |                                    | AS 3580:14-2014       |
| 15 (East)  | PM <sub>10</sub>      | TEOM                        | Continuous          | 50µg/m <sup>3</sup><br>(24 hr avg)<br>25µg/m <sup>3</sup><br>(annual) |                                    | AS 3580.9.8-2008      |
|  | TSP                   | Hi-Vol Sampler <sup>^</sup> | 24hr,<br>1 day in 6 | 90µg/m <sup>3</sup><br>(annual)                                       | 80µg/m <sup>3</sup><br>(24 hr avg) | AS/NZS 3580.9.3:2003  |
|  | Insoluble solids      | Dust gauge                  | Monthly             | 120mg/m <sup>2</sup> /<br>day   | 120mg/m <sup>2</sup> /<br>day      | AS/NZS 3850.10.1:2003 |
| 35,36 (west of mine site)<br>Lat –<br>-27.3019286<br>Long –<br>151.6437771 | PM <sub>10</sub>      | TEOM                        | Continuous          | 50µg/m <sup>3</sup><br>(24 hr avg)<br>25µg/m <sup>3</sup><br>(annual) |                                    | AS/NZS 3580.9.8-2008  |
|  | TSP                   | Hi-Vol Sampler <sup>^</sup> | 24hr,<br>1 day in 6 | 90µg/m <sup>3</sup><br>(annual)                                       | 80µg/m <sup>3</sup><br>(24 hr avg) | AS/NZS 3580.9.3:2003  |
|  | Insoluble solids      | Dust gauge                  | Monthly             | 120mg/m <sup>2</sup> /<br>day   | 120mg/m <sup>2</sup> /<br>day      | AS/NZS 3850.10.1:2003 |
| 37 (West)  | PM <sub>10</sub>      | TEOM                        | Continuous          | 50µg/m <sup>3</sup><br>(24 hr avg)<br>25µg/m <sup>3</sup><br>(annual) |                                    | AS/NZS 3580.9.8-2008  |
|  | TSP                   | Hi-Vol Sampler <sup>^</sup> | 24hr,<br>1 day in 6 | 90µg/m <sup>3</sup><br>(annual)                                       | 80µg/m <sup>3</sup><br>(24 hr avg) | AS/NZS 3580.9.3:2003  |
|  | Insoluble solids      | Dust gauge                  | Monthly             | 120mg/m <sup>2</sup> /<br>day   | 120mg/m <sup>2</sup> /<br>day      | AS/NZS 3850.10.1:2003 |
| 44 (Northwest)   | PM <sub>10</sub>      | TEOM                        | Continuous          | 50µg/m <sup>3</sup><br>(24 hr avg)<br>25µg/m <sup>3</sup><br>(annual) |                                    | AS/NZS 3580.9.8-2008  |
|  | TSP                   | Hi-Vol Sampler <sup>^</sup> | 24hr,<br>1 day in 6 | 90µg/m <sup>3</sup><br>(annual)                                       | 80µg/m <sup>3</sup><br>(24 hr avg) | AS/NZS 3580.9.3:2003  |

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| Monitoring location* | Air quality indicator | Instrument | Frequency | Air quality limit         | Nuisance limit            | Monitoring method     |
|----------------------|-----------------------|------------|-----------|---------------------------|---------------------------|-----------------------|
|                      | Insoluble solids      | Dust gauge | Monthly   | 120mg/m <sup>2</sup> /day | 120mg/m <sup>2</sup> /day | AS/NZS 3850.10.1:2003 |

\*See [Figure # \[Note: this will be a combination of Figures 5 – Location of sensitive receptors and Figure 6 – Air quality monitoring locations for the revised project \(Stage 3\)\]](#) # Data from the modified TEOM and Hi-Vol samplers to be used to calibrate the modified TEOM for monitoring TSP. Calibration needs to be undertaken over at least a 6 month period from June to December. Once the modified TEOM has been calibrated it can be used to measure TSP instead of the Hi-Vol sampler.  
 ^ The modified TEOM can be used to measure TSP at other sites.

**Commented [A22]:** The change to the note at the end of Table B1 by the SP is accepted by OCAA

| <b>B8</b>                | The environmental authority holder must provide and install “first flush” diverter systems within <b>three (3) months</b> of a request for such a system being made from a residence within 5 km of the mine boundary.  |                  |                        |                  |        |                  |          |          |                        |            |           |           |                 |          |        |           |          |          |                 |
|--------------------------|---|------------------|------------------------|------------------|--------|------------------|----------|----------|------------------------|------------|-----------|-----------|-----------------|----------|--------|-----------|----------|----------|-----------------|
| <b>B9</b>                | <b>Odour Nuisance</b><br>The release of noxious or offensive odour(s) or any other noxious or offensive airborne contaminant(s) resulting from the mining activity must not cause <u>or contribute to</u> an environmental nuisance at any sensitive place or commercial place.   |                  |                        |                  |        |                  |          |          |                        |            |           |           |                 |          |        |           |          |          |                 |
| <b>B10</b>               | When requested by the administering authority, odour monitoring must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint ( <del>which is neither frivolous nor vexatious nor based on mistaken belief in the opinion of the authorised officer</del> ) of environmental nuisance at any sensitive place or commercial place, and the results must be notified within <b>fourteen (14) days</b> to the administering authority <u>and the complainant</u> following completion of monitoring.  |                  |                        |                  |        |                  |          |          |                        |            |           |           |                 |          |        |           |          |          |                 |
| <b>B11</b>               | If monitoring indicates condition <b>B9</b> is not being met then the environmental authority holder must:<br>a) address the complaint including the use of appropriate dispute resolution if required; <b>and</b><br>b) immediately implement odour abatement measures so that emissions of odour from the activity do not result in further environmental nuisance.   |                  |                        |                  |        |                  |          |          |                        |            |           |           |                 |          |        |           |          |          |                 |
| <b>New condition B12</b> | For any blast within 1.5km of a sensitive receptor, a monitoring program must be designed and implemented by a suitably qualified and experienced person in relation to air emissions to determine whether air quality complies with the following standards at the sensitive receptor:<br><table border="1"> <thead> <tr> <th>Pollutant</th> <th>Air Quality Objective</th> <th>Averaging Period</th> <th>Source</th> </tr> </thead> <tbody> <tr> <td rowspan="2">H<sub>2</sub>S</td> <td>0.11 ppm</td> <td>24 hours</td> <td>EPP (Air)<sup>1</sup></td> </tr> <tr> <td>0.0049 ppm</td> <td>30 minute</td> <td>EPP (Air)</td> </tr> <tr> <td rowspan="2">SO<sub>2</sub></td> <td>0.12 ppm</td> <td>1 hour</td> <td>EPP (Air)</td> </tr> <tr> <td>0.24 ppm</td> <td>3 minute</td> <td>Odour detection</td> </tr> </tbody> </table> | Pollutant        | Air Quality Objective  | Averaging Period | Source | H <sub>2</sub> S | 0.11 ppm | 24 hours | EPP (Air) <sup>1</sup> | 0.0049 ppm | 30 minute | EPP (Air) | SO <sub>2</sub> | 0.12 ppm | 1 hour | EPP (Air) | 0.24 ppm | 3 minute | Odour detection |
| Pollutant                | Air Quality Objective   | Averaging Period | Source                 |                  |        |                  |          |          |                        |            |           |           |                 |          |        |           |          |          |                 |
| H <sub>2</sub> S         | 0.11 ppm  | 24 hours         | EPP (Air) <sup>1</sup> |                  |        |                  |          |          |                        |            |           |           |                 |          |        |           |          |          |                 |
|                          | 0.0049 ppm  | 30 minute        | EPP (Air)              |                  |        |                  |          |          |                        |            |           |           |                 |          |        |           |          |          |                 |
| SO <sub>2</sub>          | 0.12 ppm  | 1 hour           | EPP (Air)              |                  |        |                  |          |          |                        |            |           |           |                 |          |        |           |          |          |                 |
|                          | 0.24 ppm  | 3 minute         | Odour detection        |                  |        |                  |          |          |                        |            |           |           |                 |          |        |           |          |          |                 |

**Commented [A23]:** As to B9, see earlier comment on Ba

**Commented [A24]:** As to B10, there is no evidence to suggest frivolous complaints have been made. These words are unnecessary given that the administering authority has discretion whether to request the monitoring.

**Commented [A25]:** As to B11, the change by the SP is accepted by OCAA

**Commented [A26]:** The addition of conditions B12 and B13 are consistent with Dr Taylor evidence.

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|                          |   |              |               |                  |
|--------------------------|---|--------------|---------------|------------------|
|                          | <u>CO</u>   | <u>9 ppm</u> | <u>8 hour</u> | <u>EPP (Air)</u> |
|                          | <p><u>1 EPP (Air) refers to the <i>Environment Protection (Air) Policy 2019</i>. For the purposes of condition A12, a change in air quality objectives contained in the <i>Environment Protection (Air) Policy 2019</i> is taken to be a change in a policy or guideline or standard.</u></p>   |              |               |                  |
| <u>New condition B13</u> | <p>If monitoring indicates the standards in <b>Condition B12</b> are not being met then the environmental authority holder must:</p> <p>a) <u>immediately implement odour abatement measures so that emissions of odour from the activity do not result in further environmental nuisance; and</u></p> <p>b) <u>within 24 hours of the blast, notify the administering authority and the sensitive receptor of any exceedance of the standards and the odour abatement measures implemented.</u></p>  |              |               |                  |
| <u>New condition B14</u> | <p>If the Annual Review required by <b>Condition B4</b> demonstrates the environmental authority holder is failing to comply with the limits specified in <b>Table B1</b>, then the administering authority is able to request data and details on which the Annual Review was based and conduct or commission its own independent review by suitably qualified and experienced person approved by the administering authority. This review would be funded by the environmental authority holder. The reviewer may request additional data and information relating to the review through the administering authority as considered necessary.</p> |              |               |                  |

Commented [A27]: OCAA suggests a new condition B14.

On the current wording of the draft EA the Annual Review could be an entirely internal process. OCAA has suggested amendments to B4 to address this but given the significance of the Annual Review and the evidence of the Applicant's failure to implement measures to address problems raised by previous reviews, the AA should be able to conduct its own review, on the available data to satisfy itself that an appropriate response to demonstrated exceedances is being undertaken

| Agency interest: Water |   |
|------------------------|---|
| Condition number       | Condition   |
| C1                     | Contaminants that will, or have the potential to, cause environmental harm must not be released directly or indirectly to any waters as a result of the authorised mining activities, except as permitted under the conditions of this environmental authority.   |
| C2                     | Unless otherwise permitted under the conditions of this environmental authority, the release of mine affected water to waters must only occur from the release points specified in <b>Table C1: Mine affected water release points, sources and receiving waters</b> and depicted in <b>Figure 2: Mine affected water release points, sources and receiving waters monitoring locations</b> attached to this environmental authority. |

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Table C1: Mine-affected water release points, sources and receiving waters

| Release Point (RP) | Latitude (decimal degree, GDA94) | Longitude (decimal degree, GDA94) | Mine-affected water source and location | Monitoring Point  | Receiving waters description |
|--------------------|----------------------------------|-----------------------------------|---|-------------------|------------------------------|
| ED1                | 27° 15' 40.5603" S               | 151° 41' 48.32659" E              | ED1                                     | Overflow from ED1 | Spring Creek                 |
| ED2                | 27° 16' 54.96167" S              | 151° 41' 36.83113" E              | ED2                                     | Overflow from ED2 | Lagoon Creek                 |
| ED3                | 27° 18' 29.40913" S              | 151° 42' 50.52694" E              | ED3                                     | Overflow from ED3 | Lagoon Creek                 |
| ED4                | 27° 17' 41.49436" S              | 151° 41' 33.60156" E              | ED4                                     | Overflow from ED4 | Lagoon Creek                 |
| ED5                | TBA                              | TBA                               | ED5                                     | Overflow from ED5 | Lagoon Creek                 |
| ED6                | TBA                              | TBA                               | ED6                                     | Overflow from ED6 | Lagoon Creek                 |
| ED7                | TBA                              | TBA                               | ED7                                     | Overflow from ED7 | Lagoon Creek                 |

|           |   |
|-----------|---|
| <b>C3</b> | The release of mine affected water to waters in accordance with Condition <b>C2</b> must not exceed the release limits stated in <b>Table C2: Mine-affected water release limits</b> when measured at the monitoring points specified in <b>Table C1: Mine-affected water release points, sources and receiving waters</b> for each quality characteristic. |
|-----------|---|

Table C2: Mine-affected water release limits

| Quality characteristic          | Release limits   | Monitoring frequency  |
|---------------------------------|--|---|
| Electrical conductivity (µS/cm) | Release limits specified in <b>Table C3</b> for variable flow criteria | Real time telemetry for EC and pH. Daily grab samples if telemetry not available                      |
| pH (pH Unit)                    | 6.0 (minimum)<br>9.0 (maximum)   | If telemetry is unavailable, the first sample must be taken within 2 hours of commencement of release |
| Total suspended solids (mg/L)   | 100  | Daily during release (the first sample must be taken within 2 hours of commencement of release)       |

|           |   |
|-----------|---|
| <b>C4</b> | The release of mine affected water to waters from the release points must be monitored as per <b>Table C3: Mine-affected water release during flow events</b> at the locations specified in <b>Table C1: Mine-affected water release points, sources and receiving waters</b> for each quality characteristic and at the frequency specified in <b>Table C2: Mine-affected water release limits</b> . |
|-----------|---|

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|            |   |
|------------|---|
| <b>C5</b>  | <p><b>Mine-affected water release events</b></p> <p>The holder must ensure a stream flow gauging station(s) is installed, operated and maintained to determine and record stream flows in Lagoon and Spring Creek upstream of the discharge sites.</p>  |
| <b>C6</b>  | <p>Notwithstanding any other condition of this environmental authority, the release of mine affected water to waters in accordance with <b>Condition C2</b> must only take place during periods of natural flow in accordance with the receiving water flow criteria for discharge specified in <b>Table C2: Mine-affected water release limits</b> for the release point(s) specified in <b>Table C1: Mine-affected water release points, sources and receiving waters</b>.</p>  |
| <b>C7</b>  | <p>The release of mine affected water to waters in accordance with <b>Condition C6</b> must not exceed the Maximum Release Rate (for all combined release point flows) for each receiving water flow criterion for discharge specified in <b>Table C3: Mine-affected water release during flow events</b> when measured at the monitoring points specified in <b>Table C1: Mine-affected water release points, sources and receiving waters</b>.</p>  |
| <b>C8</b>  | <p>The daily quantity of mine affected water released from each release point must be measured and recorded.</p>  |
| <b>C9</b>  | <p>Release to waters must be undertaken so not as to cause erosion of the bed and banks of the receiving waters or cause material build-up of sediment in such waters.</p>  |
| <b>C10</b> | <p><b>Notification of release event</b></p> <p>The environmental authority holder must notify the administering authority as soon as practicable and <b>no later than 24 hours after commencing</b> to release mine affected water to the receiving environment. Notification must include the submission of written advice to the administering authority of the following information:</p> <ol style="list-style-type: none"> <li>a) release commencement date/time;</li> <li>b) details regarding the compliance of the release with the conditions of Agency Interest: Water of this environmental authority (that is, contaminant limits, natural flow, discharge volume);</li> <li>c) release point(s);</li> <li>d) release rate;</li> <li>e) release salinity; and</li> <li>f) receiving water(s) including the natural flow rate.</li> </ol> <p><b>NOTE:</b> Notification to the administering authority must be made via WaTERS.</p> |

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Table C3: Mine-affected water release during flow events

| Receiving waters/<br>stream | Release Point<br>(RP) | Gauging Station<br>Latitude<br>(GDA94) | Gauging Station<br>Longitude<br>(GDA94) | Receiving Water Flow<br>Criteria for<br>discharge<br>(m3/s)   | Maximum<br>release rate<br>(for all<br>combined<br>RP flows) | Electrical<br>Conductivity<br>Release<br>Limits |
|-----------------------------|-----------------------|--|---|---|--|---|
| Lagoon<br>Creek             | ED2                   | 27° 16'<br>54.96167"<br>S              | 151° 41'<br>36.83113"<br>E              | Low Flow<br><46.3 L/sec for<br>a period of 28<br>days after<br>natural flow<br>events that<br>exceed 4 ML/d         | <17.4 L/sec  | 700   |
|                             |                       |  |   |   |  |   |
|                             | ED4                   | 27° 17'<br>41.49436"<br>S              | 151° 41'<br>33.60156"<br>E              | Medium Flow<br>(low)<br>> 46.3 L/sec  | <17.4 L/sec  | 1500  |
|                             |                       |  |   |   | < 8 L/sec  | 2,500   |
|                             |                       |  |   |   | < 5.8 L/sec  | 3,500   |
|                             | ED5                   | TBA                                    | TBA                                     | Medium Flow<br>(high)<br>> 133 L/sec  | < 48.6 L/sec   | 1500  |
|                             |                       |  |   |   | < 23 L/sec   | 2,500   |
|                             |                       |  |   |   | < 15 L/sec   | 3,500   |
|                             | ED6                   | TBA                                    | TBA                                     | High Flow<br>>405 L/sec   | < 144.7<br>L/sec   | 1500  |
|                             |                       |  |   |   | < 92.6 L/sec   | 2,500   |
|                             |                       |  |   |   | < 69.4 L/sec   | 3,500   |
|                             | ED7                   | TBA                                    | TBA                                     | Low Flow<br>< 46.3 L/sec for<br>a period of 28<br>days after<br>natural flow<br>events that<br>exceed 46.3<br>L/sec | < 17.4 L/sec   | 700   |
|                             |                       |  |   |   |  |   |
|                             |                       |  |   |   |  |   |
| Spring<br>Creek             | ED1                   | 27° 15'<br>40.5603"<br>S               | 151° 41'<br>48.32659"<br>E              | Low Flow<br>< 46.3 L/sec for<br>a period of 28<br>days after<br>natural flow<br>events that<br>exceed 46.3<br>L/sec | < 17.4 L/sec   | 700   |

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|            |  |
|------------|--|
| <b>C11</b> | <p>The environmental authority holder must notify the administering authority as soon as practicable and nominally no later than 24 hours after cessation of a release event of the cessation of a release notified under <b>Condition C10</b> and within 28 days provide the following information in writing:</p> <ul style="list-style-type: none"> <li>a) release cessation date/ and time;</li> <li>b) natural flow rate in receiving water;</li> <li>c) volume of water released;</li> <li>d) details regarding the compliance of the release with the conditions of Agency Interest; Water of this environmental authority (i.e. contaminant limits, natural flow, discharge volume);</li> <li>e) all in-situ water quality monitoring results; and</li> <li>f) any other matters pertinent to the water release event.</li> </ul> <p>NOTE: Successive or intermittent releases occurring within 24 hours of the cessation of any individual release can be considered part of a single release event and do not require individual notification for the purpose of compliance with <b>Conditions C10</b> and <b>C11</b>, provided the relevant details of the release are included within the notification provided in accordance with <b>Conditions C10</b> and <b>C11</b>.</p> |
| <b>C12</b> | <p>If the release limits defined in <b>Table C2: Mine-affected water release limits</b> are exceeded, the holder of the environmental authority must notify the administering authority within 24 hours of receiving the results.</p>  |
| <b>C13</b> | <p>The environmental authority holder must, within 28 days of a release that is not compliant with the conditions of this environmental authority, provide a report to the administering authority detailing:</p> <ul style="list-style-type: none"> <li>a) the reason for the release;</li> <li>b) the location of the release;</li> <li>c) the total volume of the release and which (if any) part of this volume was non-compliant;</li> <li>d) the total duration of the release and which (if any) part of this period was non-compliant;</li> <li>e) all water quality monitoring results (including all laboratory analyses);</li> <li>f) identification of any environmental harm as a result of the non-compliance;</li> <li>g) all calculations; and</li> <li>h) any other matters pertinent to the water release event.</li> </ul>  |
| <b>C14</b> | <p><b>Receiving Environment Monitoring and Contaminant Trigger Levels</b></p> <p>The quality of the receiving waters must be monitored at the locations specified in <b>Table C5: Receiving water upstream background sites and downstream monitoring points</b> for each quality characteristic and at the monitoring frequency stated in <b>Table C4: Receiving waters contaminant trigger levels</b>.</p>   |

Table C4: Receiving waters contaminant trigger levels

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| Quality Characteristic          | Trigger Levels (µg/L) | Comment on Trigger Level  | Mine Affected Water Monitoring Frequency                       |
|---------------------------------|-----------------------|---|--|
| pH                              | 6.5 — 9.0             |   | Daily during the release                                       |
| Electrical Conductivity (µS/cm) | 700 510               | Oakey Creek WQO   |  |
| Total Suspended solids (mg/L)   | To be determined 65   | Turbidity may be required to assess ecosystems impacts and can provide instantaneous results. |  |
| Aluminium                       | 55                    | <i>For aquatic ecosystem protection, based on SMD guideline</i>                               | Commencement of release and thereafter weekly during release N |
| Arsenic                         | 13                    | <i>For aquatic ecosystem protection, based on SMD guideline</i>                               |  |
| Cadmium                         | 0.2                   | <i>For aquatic ecosystem protection, based on SMD guideline</i>                               |  |
| Chromium                        | 1                     | <i>For aquatic ecosystem protection, based on SMD guideline</i>                               |  |
| Copper                          | 2                     | <i>For aquatic ecosystem protection, based on LOR for ICPMS</i>                               |  |
| Iron                            | 300                   | <i>For aquatic ecosystem protection, based on low reliability guideline</i>                   |  |
| Lead                            | 4                     | <i>For aquatic ecosystem protection, based on SMD guideline</i>                               |  |
| Mercury                         | 0.2                   | <i>For aquatic ecosystem protection, based on LOR for CV FIMS</i>                             |  |
| Nickel                          | 11                    | <i>For aquatic ecosystem protection, based on SMD guideline</i>                               |  |
| Zinc                            | 8                     | For aquatic ecosystem protection, based on SMD guideline                                      |  |
| Boron                           | 370                   | For aquatic ecosystem protection, based on SMD guideline                                      |  |
| Cobalt                          | 90                    | For aquatic ecosystem protection, based on low reliability guideline                          |  |
| Manganese                       | 1900                  | For aquatic ecosystem protection, based on SMD guideline                                      |  |
| Molybdenum                      | 34                    | For aquatic ecosystem protection, based on low reliability guideline                          |  |
| Selenium                        | 10                    | For aquatic ecosystem protection, based on LOR for ICPMS                                      |  |
| Silver                          | 1                     | For aquatic ecosystem protection, based on LOR for ICPMS                                      |  |
| Uranium                         | 1                     | For aquatic ecosystem protection, based on LOR for ICPMS                                      |  |
| Vanadium                        | 10                    | For aquatic ecosystem protection, based on LOR for ICPMS                                      |  |

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| Quality Characteristic           | Trigger Levels (µg/L)                                  | Comment on Trigger Level   | Mine Affected Water Monitoring Frequency |
|----------------------------------|--|--|--|
| Ammonia                          | 900  | For aquatic ecosystem protection, based on SMD guideline   |  |
| Nitrate                          | 1100   | For aquatic ecosystem protection, based on ambient Queensland Water Quality Guidelines (2006) for TN |  |
| Petroleum hydrocarbons (C6-C9)   | 20   |  |  |
| Petroleum hydrocarbons (C10-C36) | 100  |  |  |
| Fluoride (total)                 | 2000   | Protection of livestock and short term irrigation guideline  |  |
| Sodium                           | TBA  |  |  |
| Sulphate (S042-) (mg/L)          | 250 (Protection of drinking water Environmental Value) | Drinking water environmental values from NHMRC 2006 guidelines OR ANZECC                             | Daily during release                     |

**Table C4: Receiving Waters contaminant trigger levels notes:**

1. All metals and metalloids must be measured as total (unfiltered) and dissolved (filtered). Trigger levels for metal/metalloids apply if dissolved results exceed trigger.
2. The quality characteristics required to be monitored as per **Table C4: Receiving Waters contaminant trigger levels** can be reviewed once the results of 2 years monitoring data is available, or if sufficient data is available to adequately demonstrate negligible environmental risk, and it may be determined that a reduced monitoring frequency is appropriate or that certain quality characteristics can be removed from **Table C4: Receiving Waters contaminant trigger levels** by amendment.
3. SMD - slightly moderately disturbed level of protection, guideline refers ANZECC & ARMCANZ (2000).
4. LOR - typical reporting for method stated. ICPMS/CV FIMS - analytical method required to achieve LOR.
5. Draft environmental values and water quality guidelines: Queensland Murray Darling Basin, Department of Science, Information Technology and Innovation, Queensland

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**Table C5: Receiving water upstream background sites and downstream monitoring points**

| Monitoring Points                            | Receiving Waters Location Description   | Latitude (GDA94)   | Longitude (GDA94)   |
|--|---|--------------------|---------------------|
| <b>Upstream Background Monitoring Points</b> |   |                    |                     |
| LCU1   | Lagoon Creek at a point upstream of mine  | 27° 18' 9.7728" S  | 151° 44' 23.136" E  |
| SSCU21                                       | Spring Creek at a point upstream of mine  | 27° 14' 18.7728" S | 151° 41' 31.2864" E |
| <b>Downstream Monitoring Points</b>          |   |                    |                     |
| LCD1   | Lagoon Creek downstream of mine   | 27° 18' 35.64" S   | 151° 43' 4.3536" E  |
| LCD2   | Lagoon Creek downstream of mine   | 27° 18' 37.36" S   | 151° 43' 1.8768" E  |
| SCD1   | Spring Creek at a point downstream of mine  | 27° 14' 47.364" S  | 151° 40' 36.2028" E |
| DS1  | Located at the downstream boundary of ML50232* (*or any subsequent identifier for the ML required for the New Acland Coal Mine Stage 3 project) | 27° 19' 26.68" S   | 151° 41' 7.02 E     |

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| <b>C15</b> | <p>If quality characteristics of the receiving water at the downstream monitoring points exceed any of the trigger levels specified in <b>Table C4: Receiving waters contaminant trigger levels</b> during a release event of mine affected water the environmental authority holder must compare the downstream results to the upstream results in the receiving waters and:</p> <p>a) where the downstream result is the same or a lower value than the upstream value for the quality characteristic then no additional monitoring and reporting action is required; or</p> <p>b) where the downstream results exceed the upstream results complete an investigation into the potential for environmental harm and provide a written report to the administering authority within 90 days of receiving the results and in the next annual return, outlining:</p> <ol style="list-style-type: none"> <li>1. details of the investigations carried out; and</li> <li>2. actions taken to prevent environmental harm.</li> </ol> <p>NOTE: Where an exceedance of a trigger level has occurred and is being investigated, in accordance with (b) of this condition, no further reporting is required for subsequent trigger events for that quality characteristic.</p> |
| <b>C16</b> | All determinations of water quality and biological monitoring must be performed by an appropriately qualified person.  |
| <b>C17</b> | <b>Annual water monitoring reporting</b>   |

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|            | <p>The following information must be recorded in relation to all water monitoring required under the conditions of this environmental authority and submitted to the administering authority via WaTERS upon request in the specified format:</p> <ul style="list-style-type: none"> <li>a) the date on which the sample was taken;</li> <li>b) the time at which the sample was taken;</li> <li>c) the monitoring point at which the sample was taken;</li> <li>d) the measured or estimated daily quantity of mine affected water released from all release points;</li> <li>e) the release flow rate at the time of sampling for each release point;</li> <li>f) the results of all monitoring and details of any exceedances of the conditions of this environmental authority;</li> <li>g) water quality monitoring data must be provided to the administering authority in the specified electronic format <del>upon request</del>; and</li> <li>h) water level monitoring data must be provided in the specified electronic format <del>upon request</del>.</li> </ul> |
| <b>C18</b> | <p><b>Stormwater and water sediment controls</b></p> <p>An Erosion and Sediment Control Plan must be developed by an appropriately qualified person and implemented for all stages of the mining activities on the site to minimise erosion and the release of sediment to receiving waters and contamination of stormwater.</p>  |
| <b>C19</b> | <p>Stormwater, other than mine affected water, is permitted to be released to waters from:</p> <ul style="list-style-type: none"> <li>a) Erosion and sediment control structures that are installed and operated in accordance with the Erosion and Sediment Control Plan required by <b>Condition C18</b>; and</li> <li>b) Water management infrastructure that is installed and operated, in accordance with a Water Management Plan that complies with <b>Condition C20</b> for the purpose of ensuring water does not become mine affected water.</li> </ul>  |
| <b>C20</b> | <p><b>Water Management Plan</b></p> <p>A Water Management Plan must be developed by an appropriately qualified person and implemented for all stages of mining. The Water Management Plan must be submitted to the administering authority for review and comment within <b>3 months upon the grant of ML50232 and ML70002</b>.</p>   |
| <b>C21</b> | <p>The Water Management Plan must identify methods to:</p> <ul style="list-style-type: none"> <li>a) identify the environmental values of the receiving waters including Lagoon and Spring Creek and water quality objectives and how they will be protected;</li> <li>b) incorporate a risk management approach to how changing levels of flood, drought and water quality risks should be addressed;</li> <li>c) manage stormwater discharge;</li> <li>d) develop and implement a system for emergency spills or discharges including procedures to minimise extent and duration of release, staff training, investigation and reporting procedures;</li> <li>e) manage the environmental impacts of any release of wastewater to the environment so that any impacts are minimised including restricting any discharge to waters to occasions where there is flow in receiving waters to provide considerable dilution;</li> </ul>   |

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|            | <p>f) separate clean water from undisturbed areas and water from disturbed areas;</p> <p>g) manage site water quality and quantity during the (3) phases of mining: development, operation and decommissioning and include a site water balance including groundwater generated through mine dewatering;</p> <p>h) safeguard against the potential for soil erosion and acid drainage; and</p> <p>i) provide details of operational monitoring and monitoring of hydrological processes including associated performance indicators.</p> |
| <b>C22</b> | Within twenty (20) business days of receiving comments from the administering authority as required by <b>Condition C20</b> , the Water Management Plan must be updated by a suitably qualified and experienced person having regard to the comments, and submitted to the administering authority..   |
| <b>C23</b> | A copy of the Water Management Plan and any subsequent amendment of the Water Management Plan must be kept at the place to which this environmentally relevant activity relates and be available for examination by Emergency Services Personnel or an authorised person on request.   |
| <b>C24</b> | If an exceedance in accordance with <b>Condition C15(b)</b> is identified, the holder of the environmental authority must notify the administering authority in writing within <b>24 hours of receiving the result</b> .   |

| Agency interest: Groundwater |  |
|------------------------------|--|
| Condition number             | Condition  |
| <b>D1</b>                    | <b>Contaminant release</b><br>Contaminants must not be released, directly or indirectly, to groundwater. <del>The holder of this environmental authority must not release contaminants to groundwater.</del>   |
| <b>D2</b>                    | All determinations of groundwater quality and biological monitoring must be performed by an appropriately qualified person.  |
| <b>D3</b>                    | Groundwater quality and levels must be monitored at the locations and frequencies defined in <del>Table D1 – Groundwater monitoring locations and frequency for quality characteristics identified in Table D2 – Groundwater quality triggers and limits.</del><br>Groundwater quality must be monitored: <ul style="list-style-type: none"> <li>a) on a 6-monthly basis; and</li> <li>b) for the parameters and in the units specified in <b>Table D2: Groundwater quality triggers and limits</b>; and</li> <li>c) at all monitoring bores (including compliance and interpretation bores) in <b>Table D1: Groundwater monitoring locations and frequency and Appendix X: (Groundwater Monitoring Bores)</b>.</li> </ul> |
| <b>D4</b>                    | Groundwater levels when measured at the monitoring locations specified in <del>Table D1 – Groundwater monitoring locations and frequency</del> must not exceed the groundwater level trigger change thresholds specified in <del>Table D3 – Groundwater level monitoring below.</del><br>Groundwater levels must not exceed the groundwater level trigger thresholds specified in <b>Table D3: Groundwater level monitoring</b> and be monitored:  |

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|           | <p>a) on a monthly basis; and</p> <p>b) at all monitoring bores in <b>Table D3: Groundwater level monitoring</b>.</p>  |
| <b>D5</b> | <p>Within two years of this environmental authority taking effect, the environmental authority holder must submit to the administering authority:</p> <p>a) all contaminant trigger levels listed as TBA in <b>Table D2: Groundwater quality triggers and limits</b>; and</p> <p>b) all levels listed as TBA in <b>Table D3: Groundwater level monitoring</b>.</p> |

Table D1: Groundwater monitoring locations and frequency

| Groundwater Monitoring Point-Bore | Monitoring Bore Type | Aquifer Compliance Bore (C)<br>To be specified for each monitoring bore | Location (GDA94 — Zone 56) |              | Parameter <sup>1</sup> and Monitoring Frequency   |
|-----------------------------------|----------------------|---|----------------------------|--------------|---|
|                                   |                      |   | Easting (m)                | Northing (m) |   |
| 2289P                             | Compliance           | Coal measures (C)   | 371265                     | 6983532      | Groundwater levels: monthly<br>Groundwater quality:<br>Six monthly to include:<br>Al, As, Ca, Se, Cl, Cu, F, Fe, Total N, K, Mg, Mn, Na, SO <sub>4</sub> , HCO <sub>3</sub> , TDS, EC, pH |
| 2291P                             | Compliance           | Coal measures (C)   | 374620                     | 6980033      |   |
| 18P                               | Compliance           | Coal measures (C)   | 371028                     | 6982641      |   |
| 25P                               | Compliance           | Coal measures (C)   | 374146                     | 6982057      |   |
| 26P                               | Compliance           | Coal measures (C)   | 374266                     | 6982977      |   |
| 27P                               | Compliance           | Coal measures (C)   | 373360                     | 6983554      |   |
| 28P                               | Compliance           | Coal measures (C)   | 372328                     | 6983977      |   |
| 843                               | Compliance           | Basalt (C)  | 370698                     | 6981283      |   |
| 848                               | Compliance           | Coal measures (C)   | 370705                     | 6981723      |   |
| 81P                               | Compliance           | Coal measures (C)   | 375003                     | 6979638      |   |
| 82P                               | Compliance           | Coal measures (C)   | 373697                     | 6978814      |   |
| 83P                               | Compliance           | Coal measures (C)   | 371854                     | 6979679      |   |

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| Groundwater Monitoring Point/Bore | Monitoring Bore Type | Aquifer Compliance Bore (C)<br>To be specified for each monitoring bore | Location (GDA94 — Zone 56) |              | Parameter <sup>1</sup> and Monitoring Frequency |
|-----------------------------------|----------------------|---|----------------------------|--------------|---|
|                                   |                      |   | Easting (m)                | Northing (m) |   |
| 84P                               | Compliance           | Basalt (C)  | 370355                     | 6982187      |   |
| BMH1                              | Compliance           | Basalt (C)  | 369658                     | 6982204      |   |
| CSMH1                             | Compliance           | Coal measures (C)   | 375404                     | 6977336      |   |
| 109P                              | Interpretation       | Basalt  | 368263                     | 6982378      |   |
| 122PGC                            | Interpretation       | Coal measures   | 370656                     | 6977837      |   |
| 114P                              | Interpretation       | Coal measures   | 371806                     | 6976037      |   |
| 116P                              | Interpretation       | Coal measures   | 374220                     | 6975132      |   |
| 119PGC                            | Interpretation       | Coal measures   | 371609                     | 6973337      |   |
| 120WB                             | Interpretation       | Coal measures   | 367523                     | 6976115      |   |
| 121WB                             | Interpretation       | Coal measures   | 368472                     | 6978441      |   |
| 1A                                | Interpretation       | Basalt  | 366548                     | 6982090      |   |
| 1B                                | Interpretation       | Coal measures   | 366548                     | 6982090      |   |
| 2A                                | Interpretation       | Basalt  | 365884                     | 6979300      |   |
| 2B                                | Interpretation       | Coal measures   | 365884                     | 6979300      |   |
| 3A                                | Interpretation       | Basalt  | 369416                     | 6973707      |   |
| 3B                                | Interpretation       | Coal measures   | 369416                     | 6973707      |   |
| 4A                                | Interpretation       | Basalt  | 365800                     | 6977025      |   |
| 4B                                | Interpretation       | Coal measures   | 365800                     | 6977025      |   |
| 4C                                | Interpretation       | Marburg Sandstone   | 365800                     | 6977025      |   |
| 5A                                | Interpretation       | Oakey Creek alluvium  | 373845                     | 6972482      |   |
| 5B                                | Interpretation       | Coal measures   | 373845                     | 6972482      |   |
| 5C                                | Interpretation       | Marburg Sandstone   | 373845                     | 6972482      |   |

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| Groundwater Monitoring Point/Bore | Monitoring Bore Type | Aquifer Compliance Bore (C)<br>To be specified for each monitoring bore | Location (GDA94 — Zone 56) |              | Parameter <sup>1</sup> and Monitoring Frequency |
|-----------------------------------|----------------------|---|----------------------------|--------------|---|
|                                   |                      |   | Easting (m)                | Northing (m) |   |
| 6                                 | Interpretation       | Coal measures   | 375435                     | 6975738      |   |
| 7A                                | Interpretation       | Basalt  | 367572                     | 6982694      |   |
| 7B                                | Interpretation       | Coal measures   | 367572                     | 6982694      |   |
| 8                                 | Interpretation       | Mine Pit Backfill   | 372514                     | 6982689      |   |
| 2289_Lower                        | Compliance           | Coal measures (C)   | 371266                     | 6983554      |   |
| 25P(R)                            | Compliance           | Coal measures (C)   | 374036                     | 6981883      |   |
| 26P(R)                            | Compliance           | Coal measures (C)   | 374158                     | 6982801      |   |
| 10Pb                              | Compliance           | Basalt (C)  | 370359                     | 6980896      |   |
| 4517WB                            | Compliance           | Coal measures (C)   | 369728                     | 6980680      |   |
| 4518WB                            | Compliance           | Coal measures (C)   | 369265                     | 6979260      |   |

<sup>1</sup> - Aluminium (Al), Arsenic (As), Calcium (Ca), Selenium (Se), Chloride (Cl), Copper (Cu), Fluorine (F), Iron (Fe), Total Nitrogen (Total N), Potassium (K), Magnesium (Mg), Manganese (Mn), Sodium (Na), Sulphate (SO<sub>4</sub>), Bicarbonate (HCO<sub>3</sub>), Total dissolved solids (TDS), Electrical conductivity (EC), Acidity/alkalinity (pH)

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**Table D2: Groundwater quality triggers and limits**

**“TBAs” in table D2 to be revised once adequate sampling has been undertaken by the holder which must be completed within 2 years of commencement of this environmental authority to add groundwater bores that measure groundwater quality and the triggers and limits relevant to each bore**

| Parameter        | Units | Contaminant Limit <sup>5</sup> | Monitoring frequency |
|------------------|-------|--------------------------------|----------------------|
| Al               | mg/l  | 5.0                            | Half yearly          |
| As               | mg/l  | .05                            | Half yearly          |
| Ca               | mg/l  | 1000                           | Half yearly          |
| Se               | mg/l  | 0.02                           | Half yearly          |
| Cl               | mg/l  | TBA                            | Half yearly          |
| Cu               | mg/l  | 1.0 <sup>2</sup>               | Half yearly          |
| F                | mg/l  | TBA                            | Half yearly          |
| Fe               | mg/l  | TBA                            | Half yearly          |
| NO <sub>3</sub>  | mg/l  | 400                            | Half yearly          |
| NO <sub>2</sub>  | mg/l  | 30                             | Half yearly          |
| K                | mg/l  | TBA                            | Half yearly          |
| Mg               | mg/l  | TBA                            | Half yearly          |
| Mn               | mg/l  | TBA                            | Half yearly          |
| Na               | mg/l  | TBA                            | Half yearly          |
| SO <sub>4</sub>  | mg/l  | 1000                           | Half yearly          |
| HCO <sub>3</sub> | mg/l  | TBA                            | Half yearly          |
| TDS              | mg/l  | 5000 <sup>2,3</sup>            | Half yearly          |
| EC               | mg/l  | 7460 <sup>2,3,4</sup>          | Half yearly          |
| pH               | unit  | TBA                            | Half yearly          |

1 - Based on Stockwater limits defined in ANZECC (2000)

2 - Defined for beef cattle based on landholder bore survey results

3 - Existing bores 27P, 28P, 2289 and 118P background levels already exceed this limit prior to mine operation

4 - Based on EC to TDS conversion factor of 0.67 as per ANZECC (2000)

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Table D3: Groundwater level monitoring

| Monitoring Point | Level trigger threshold |
|------------------|-------------------------|
| 2289P            | TBA <sup>1</sup>        |
| 2291P            | 52.0 (±5m)              |
| 18P              | 130.0 (±5m)             |
| 25P              | TBA <sup>1</sup>        |
| 26P              | TBA <sup>1</sup>        |
| 27P              | 50.0 (±5m)              |
| 28P              | 50.0 (±5m)              |
| 843              | TBA <sup>1</sup>        |
| 848              | TBA <sup>1</sup>        |
| 81P              | 42.0 (±5m)              |
| 82P              | 48.0m (±5m)             |
| 83P              | TBA <sup>1</sup>        |
| 84P              | TBA <sup>1</sup>        |
| BMH1             | 96.0 (±5m)              |
| CSMH1            | 90.0 (±5m)              |
| 109P             | TBA <sup>1</sup>        |
| 122PGC           | TBA <sup>1</sup>        |
| 114P             | TBA <sup>1</sup>        |
| 116P             | TBA <sup>1</sup>        |
| 119PGC           | TBA <sup>1</sup>        |
| 120WB            | TBA <sup>1</sup>        |
| 121WB            | TBA <sup>1</sup>        |
| 1A               | TBA <sup>1</sup>        |
| 1B               | TBA <sup>1</sup>        |
| 2A               | TBA <sup>1</sup>        |
| 2B               | TBA <sup>1</sup>        |
| 3A               | TBA <sup>1</sup>        |
| 3B               | TBA <sup>1</sup>        |
| 4A               | TBA <sup>1</sup>        |

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| Monitoring Point | Level trigger threshold |
|------------------|-------------------------|
| 4B               | TBA <sup>1</sup>        |
| 4C               | TBA <sup>1</sup>        |
| 5A               | TBA <sup>1</sup>        |
| 5B               | TBA <sup>1</sup>        |
| 5C               | TBA <sup>1</sup>        |
| 6                | TBA <sup>1</sup>        |
| 7A               | TBA <sup>1</sup>        |
| 7B               | TBA <sup>1</sup>        |
| 8                | TBA <sup>1</sup>        |
| 2289_ Lower      | 59.7m (±5m)             |
| 25P(R)           | 97.8m (±5m)             |
| 26P(R)           | 90.0m (±5m)             |
| 10Pb             | 25.0m (±5m)             |
| 4517WB           | 43.5m (±5m)             |
| 4518WB           | 59.0m (±5m)             |

<sup>1</sup>To be provided — Water level trigger thresholds will be proposed following 12 months of monitoring of the new bores and following the first update of the groundwater model prior to the operation of the revised project.

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| <b>D5</b> | <p><b>Exceedance investigation</b></p> <p>If quality characteristics of groundwater from compliance bores identified in <b>Table D1 – Groundwater monitoring locations and frequency</b> exceed any of the trigger levels stated in <b>Table D2 – Groundwater quality triggers and limits</b> or exceed any of the groundwater level trigger threshold stated in <b>Table D3 – Groundwater level monitoring</b>, the holder of this environmental authority must compare the compliance monitoring bore results to the reference bore results and complete an investigation in accordance with the ANZECC and ARMCANZ 2000.</p> <p>If the contaminant limits specified in <b>Table D2 - Groundwater quality triggers and limits</b>, or groundwater level requirements in <b>Table D3: Groundwater level monitoring</b> are exceeded at any monitoring bore:</p> <ol style="list-style-type: none"> <li>a) an investigation must be completed within <b>fourteen (14) days</b> of becoming aware of the exceedance; and</li> <li>b) a report on the investigation must be submitted to the administering authority via WaTERS within 14 days of completion of the investigation; and</li> <li>c) the report must include a determination of whether the exceedance is caused by: <ol style="list-style-type: none"> <li>i. the mining activities; or</li> <li>ii. natural variation; or</li> </ol> </li> </ol> |
|-----------|--|

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|            | iii. neighbouring land use resulting in groundwater impacts.   |
| <b>D5A</b> | If the investigation under <b>Condition D5</b> determines that the exceedance was caused by the mining activities including construction and rehabilitation, then a further investigation must be undertaken which must determine whether environmental harm has occurred or may occur, and the extent thereof.  |
| <b>D5B</b> | If the investigation undertaken under <b>Condition D5</b> determines that environmental harm has occurred, or may occur, the following action must be taken within twenty-eight (28) days after completing the investigation under <b>Condition D5</b> : <ul style="list-style-type: none"> <li>a) implementation of immediate measures to reduce environmental harm including potential environmental harm; and</li> <li>b) development of long-term mitigation measures to address any existing groundwater contamination and prevent recurrence of groundwater contamination which is implemented in a reasonable time period; and</li> <li>c) document the steps taken under (a) and (b) and provide the documentation to the administering authority.</li> </ul>  |
| <b>D6</b>  | <del>Results of monitoring of groundwater from compliance bores identified in <b>Table D1 – Groundwater monitoring locations and frequency</b> must not exceed any of the limits defined in <b>Table D2 – Groundwater quality triggers and limits</b>.</del><br>Groundwater contaminant limits specified in <b>Table D2 - Groundwater quality triggers and limits</b> must not be exceeded at the same monitoring bore on three (3) consecutive occasions.   |
| <b>D7</b>  | <b>Bore construction and maintenance and decommissioning</b><br>The construction, maintenance and management of groundwater bores (including groundwater monitoring bores) must be undertaken in a manner that prevents or minimises impacts to the environment and ensures the integrity of the bores to obtain accurate monitoring.  |
| <b>D8</b>  | <b>Groundwater management and monitoring program</b><br>The approved Groundwater Management and Monitoring Program required by Imposed Condition 10, in Appendix 1, of the CG's report must be provided, to the administering authority, within 20 business days of it being approved.   |
| <b>D9</b>  | In addition to the requirements of Imposed Condition 10 in Appendix 1 of the CG's report, a plan must be developed and certified by an appropriately qualified person to meet the following objectives: <ul style="list-style-type: none"> <li>a) identification of groundwater drawdown level thresholds for monitoring the impacts to Groundwater Dependant Ecosystems; and</li> <li>b) collection and analysis of data that identifies natural groundwater level trends for identification of water level impact to authorised water users from the mining operation as required by Schedule 3, recommended Condition 1 in Appendix 3 of the CG's report.</li> </ul> <p>The plan must be provided to the administering authority in conjunction with submission of the approved program in <b>Condition D8</b>.</p> |
| <b>D10</b> | <b>Monitoring Program Review</b>   |

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|            | The environmental authority holder must provide the approved report required by Imposed Condition 11, in Appendix 1, of the CG's report, to the administering authority, within <b>20 business days</b> of the report being approved.   |
| <b>D11</b> | The plan required under <b>Condition D9</b> must be reviewed by an appropriately qualified person in accordance with the requirements of Imposed Condition 11 in Appendix 1 of the CG's report, and be provided to the administering authority in conjunction with the submission of the approved report in <b>Condition D10</b> .  |
| <b>D12</b> | <b>Groundwater model review</b><br>The environmental authority holder must provide the approved report required by Imposed Condition 12, in Appendix 1, of the CG's report, to the administering authority, within <b>20 business days</b> of it being approved.  |
| <b>D13</b> | <b>General requirements — Oakey Creek Alluvial aquifer</b><br>As a component of the second and subsequent reviews of the New Acland Coal numerical groundwater model the environmental authority holder must provide an approved (under <i>Water Act 2000</i> ) report outlining the impact on the Oakey Creek Alluvial aquifer, to the administering authority. The report should:<br>a) Establish any identified impact associated with mining activities, if any, on the Oakey Creek Alluvial aquifer;<br>b) Include an assessment of natural and potential pumping based water level variation caused by non-mining authorised users, in the Oakey Creek Alluvial aquifer;<br>c) Outline any requirements for additional modelling or monitoring required;<br>d) If the investigation under <b>Condition D13(a)</b> concludes that there is an identified impact on the Oakey Creek Alluvial aquifer as a result of mining activities, the environmental authority holder must determine the volumetric impact associated with the identified impact; and<br>e) If the impact is determined to be the result of mining activities, the environmental authority may be required to construct additional monitoring bores. Additional monitoring bores are to be incorporated in the Groundwater Monitoring and Management Plan required by <b>Condition D8</b> . |
| <b>D14</b> | <b>Main Range Volcanics aquifer</b><br>The environmental authority holder must determine the long term impact of the take of water from the Main Range Volcanics aquifer and incorporate this into the second review of the New Acland Coal numerical groundwater model pursuant to <b>Conditions D8 — D12</b> .  |
| <b>D15</b> | A groundwater monitoring network must be maintained. The network must:<br>a) be installed and maintained by a person possessing appropriate qualifications and experience in the fields of hydrogeology and groundwater monitoring program design to be able to competently make recommendations about these matters;<br>b) be constructed in accordance with methods prescribed in either the latest version of the documents titled 'Minimum Construction Requirements for Water Bores in Australia' or the 'Minimum standards for the construction and reconditioning of water bores that intersect the sediments of artesian basins in Queensland', whichever applies; and<br>c) include a sufficient number of 'bores of compliance' that are located at an appropriate distance from potential sources of impact from mining activities and provides the following:   |

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|  | <ul style="list-style-type: none"> <li>(i) representative groundwater samples from the uppermost aquifer; and</li> <li>(ii) background water quality in hydraulically up-gradient or background bore(s) that have not been affected by any mining activities to groundwater's; and</li> <li>(iii) the quality of groundwater downgradient of any potential source of contamination including groundwater passing the relevant bore(s) of compliance.</li> </ul> |
|--|---|

| <b>Agency interest: Waste Management</b> |  |
|--|--|
| <b>Condition number</b>                  | <b>Condition</b>   |
| <b>E1</b>                                | Unless otherwise permitted by the conditions of this environmental authority or with prior approval from the administering authority and in accordance with a relevant standard operating procedure, waste must not be burnt.  |
| <b>E2</b>                                | The holder of this environmental authority may burn vegetation cleared in the course of carrying out extraction activities provided the activity does not cause environmental harm at any sensitive place or commercial place.   |
| <b>E3</b>                                | The holder of this environmental authority may dispose of inert waste (packing material) associated with blasting into open pits, buried in such a manner that it will not impede saturated aquifers.  |
| <b>E4</b>                                | <p><b>Storage of tyres</b></p> <p>Tyres stored awaiting disposal or transport for take-back and, recycling, or waste-to-energy options - should be stockpiled in volumes less than 3m in height and 200m<sup>2</sup> in area and at least 10m from any other tyre storage area.</p>  |
| <b>E5</b>                                | <p><b>Disposal of tyres</b></p> <p>Scrap tyres resulting from the mining activities can be disposed of into open pits provided tyres are placed as deeply in the spoil as reasonably possible and this practice does not cause an unacceptable fire risk or compromise mine safety.</p>  |
| <b>E6</b>                                | Scrap tyres resulting from the mining activities disposed within the operational land must not impede saturated aquifers or compromise the stability of the consolidated landform.   |
| <b>E7</b>                                | <p><b>Tailings disposal</b></p> <p>Tailings must be managed in accordance with procedures contained within the <del>current plan of operations</del> a Tailings Management Plan, which must provide for the following: <del>must include provisions for:</del></p> <ul style="list-style-type: none"> <li>a) containment of tailings;</li> <li>b) the management of seepage and leachates both during operation and the foreseeable future;</li> <li>c) the control of fugitive emissions to air;</li> <li>d) maintaining records of the relative locations of any other waste stored within the tailings;</li> <li>e) rehabilitation strategy; and</li> </ul> |

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|-------------------------------|--|
|                               | f) monitoring of rehabilitation, research and/or trials to verify the requirements and methods for decommissioning and final rehabilitation of tailings, including the prevention and management of acid mine drainage, erosion minimisation and establishment of vegetation cover.  |
| <b>E8</b>                     | <b>Green waste storage</b><br>The waste management hierarchy must be considered in the management of green waste.  |
| <b>Agency interest: Noise</b> |  |
| <b>Condition number</b>       | <b>Condition</b>   |
| <b>F1</b>                     | <p><b>Noise limits</b></p> <p>The holder of this environmental authority must ensure that noise generated by the mining activities does not cause <u>or contribute to</u> the criteria in <b>Table F1- Noise limits</b> to be exceeded at a noise sensitive place or commercial place.</p> <p>Note: the measurement of noise for a <b>noise</b> sensitive place or commercial place is either:</p> <p>a) at that place (if measured there); or<br/> b) at the monitoring location to which the <b>noise</b> sensitive or commercial place is correlated (where there is no measure at the <b>noise</b> sensitive or commercial place).</p> <p><u>The measurement of noise to determine compliance with this condition is not limited to compliance monitoring required by Conditions F4 or F4a.</u></p> <p><u>All noise arising from loading and unloading of trains and from trains idling on ML50232 or ML700002 will be considered mining noise and must meet the limits in rows 1 and 2 of Table F1.</u></p> <p><u>Noise which is distinguishable as train noise arising from a train in transit on ML50232 or ML700002 is considered rail spur noise and must meet the limits in row 3 and 4 of Table F1.</u></p> |
| <b>F2</b>                     | <p>If <b>performance or compliance</b> monitoring indicates the potential for exceedance of the relevant limits in <b>Table F1 — Noise Limits</b> then the environmental authority holder must immediately implement noise abatement measures to avoid exceeding the relevant limits.</p> <p><u>Note: the real time monitoring will indicate the potential for exceedances of the relevant limits if the noise level measured at the monitoring locations (as corrected and correlated in accordance with the Noise and Vibration Management Plan) approaches the relevant limits in Table F1 — Noise Limits.</u></p>  |
| <b>F3</b>                     | <p>Notwithstanding any other condition of this environmental authority, noise from the activity must not cause <u>or contribute to</u> an environmental nuisance, at any noise sensitive place.</p> <p><u>The measurement of noise to determine compliance with this condition is not limited to compliance monitoring required by Conditions F4 or F4a.</u></p>   |

**Commented [A28]:** Changes to F1 are as follows.

The words “or contribute to” provide necessary clarity – as per Ba.

The addition of ‘noise’ sensitive place suggested by SP is accepted by OCAA.

The first new paragraph is critical. There is no reason why a non-compliance with condition F1 must be established by monitoring that includes all of the requirements for the Applicant’s compliance monitoring.

This is well illustrated by the requirements that the monitoring include all sorts of parameters that are not relevant to the assessment of a breach of one or more of the limits. That is, condition F4 has some “nice to have” parameters in it (eg the first two measurements in F4(a) but they are unnecessary to establish a breach of the Lmax limits, for example).

The last two paragraphs concern the limits as they relate to train noise. The words should be included in the condition that relates to the limits rather than as footnotes to the table.

The approach taken by Mr Elkin – as adopted by the statutory party – has generally been adopted with some clarification added which is reflective of Mr Elkin and Mr Tardio’s evidence. While OCAA prefers Mr Tardio’s evidence, OCAA has sought to find common ground.

**Commented [A29]:** As to F2, OCAA accepts the applicant’s word highlighted in blue.

Added words are provided for clarity.

**Commented [A30]:** The commentary in F1 applies to the changes suggested to F3.

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|-------------------|--|
| <p><b>F4</b></p>  | <p><b>Compliance Monitoring and reporting</b></p> <p>A <u>Compliance</u> Noise Monitoring Program must be developed by a suitably qualified and experienced person in relation to noise and implemented for all stages of mining to monitor compliance with <b>Table F1 - Noise limits</b> at the frequency and locations in <b>Table F2- Compliance noise monitoring locations and frequency</b>.</p> <p><del>The Noise Monitoring Program must be submitted to the administering authority for approval within 3 months upon grant of ML50232 and/or ML700002. The Noise Monitoring Program must be implemented within 3 months of the administering authority approving the program.</del></p> <p><u>The Stage 3 New Acland mine project may not commence until the administering authority has approved the Compliance Noise Monitoring Program and the Compliance Noise Monitoring Program has been made publicly available.</u></p> <p><u>Compliance monitoring must not be conducted on the same days each month. The person conducting the compliance monitoring must not provide notice to the environmental authority holder of the times or days when the compliance monitoring is to be conducted.</u></p> <p><u>Any monitoring data collected by the environmental authority holder on private property must be provided to the owner of that private property within 10 days of receiving any request for such data from the property owner.</u></p> |
| <p><b>F4a</b></p> | <p>When requested by the administering authority, noise monitoring and recording must be undertaken within a reasonable and practicable timeframe to investigate any complaint of environmental noise nuisance at any <b>noise</b> sensitive place. <u>In response to any such request,</u> the holder of this environmental authority must undertake continuous monitoring of not less than <b>7 days</b> to capture weather-related variations and variety in different operational conditions on site in noise levels and provide the results to the administering authority within 14 days following completion of monitoring.</p>   |

**Commented [A31]:** The changes to condition F4 are as follows.

The way the condition was worded gives the Applicant at least 6 months to operate without any monitoring (or more than 6 months if approval is not granted immediately).

Given the critical role of monitoring having regard to likely exceedances, and given the many years of exceedances, it is totally unacceptable to allow this further period of time.

OCAA has made clear that condition F4 relates to compliance monitoring. The way it was worded before (combined with other conditions) made it apparent that it was meant to relate to compliance and performance monitoring, but that made no sense given that the locations referred to in the condition relate to compliance monitoring, not performance monitoring (which involves other nominated locations).

The other changes are self explanatory and are supported by the evidence in this case that TARP staff were informed when the August 2020 compliance monitoring was undertaken and that it would not be difficult to change the mine's operations for the limited times that compliance monitoring was being carried out each month.

**Commented [A32]:** The changes to F4a are non-controversial. The addition by the SP of 'noise' sensitive place is accepted by OCAA. The addition by OCAA to the introductory words to the second sentence are accepted by the Applicant.

**Table F1- Noise limits (includes construction activities)**

| Noise level dB(A) measured as                  | All days  |            |            |
|--|-----------|------------|------------|
|  | 7am — 6pm | 6pm — 10pm | 10pm — 7am |
| Noise measured at a 'Noise sensitive place'    |           |            |            |
| L <sub>Aeq, adj</sub> , 15 min <sup>1</sup>    | 42        | 35         | 35         |
| L <sub>Amax</sub>                              | -         | -          | 50         |
| L <sub>Amax</sub> rail spur <sup>2</sup>       | -         | -          | 56         |
| L <sub>Aeq</sub> (24hr) rail spur <sup>2</sup> | -         | -          | 50         |

**Commented [A33]:** As to the changes to Table F1, see condition F1 for why the footnotes have been deleted.

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~~1. All noise other than that which is distinguishable as train noise~~

~~2. Only for noise distinguishable as train noise~~

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|                  |   |
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| <p><b>F5</b></p> | <p>Noise monitoring and recording <b>required by Conditions F4 and F4a</b> must be conducted in accordance with the administering authority's Noise Measurement Manual and must include the following:</p> <ul style="list-style-type: none"> <li>a) <b>LA01, adj, 15 min - day, evening &amp; night</b>; LA10, adj, 15 min - day, evening &amp; night; LAeq, adj, 15 min - day, evening &amp; night; and LA90, adj, 15 min - day, evening &amp; night;</li> <li>b) background noise LA90;</li> <li>c) the level and frequency of occurrence of impulsive or tonal noise and any adjustment and penalties to statistical levels <b>—with a safety factor of 4dB applied</b>;</li> <li>d) atmospheric conditions including temperature, relative humidity and wind speed and directions;</li> <li>e) effects due to any extraneous factors such as traffic noise and natural sources (e.g. insects, birds and wind);</li> <li>f) location, date and time of monitoring;</li> <li><b>g) if a complaint concerns low frequency noise and where permitted by the owner or occupier of the noise sensitive place: L<sub>1</sub>Neq, 10 mins (internal), L<sub>Aeq</sub> 10 mins (internal) and one third octave band measurements in L<sub>1</sub>Neq, 10 mins (internal) for centre frequencies in the 10 – 200 Hz range;</b></li> <li>g) <del>Emission of any low frequency noise must not exceed the following:</del></li> <li>h) <del>60dB (C) (L<sub>eq</sub>, 1 hour) measured outside the sensitive receptor; and</del></li> <li>i) <del>The difference between the interval A weighted and C weighted noise levels is no greater than 20dB or;</del></li> <li>j) <del>50dB (z) (L<sub>eq, 1 hour</sub>) measured inside the receptor; and</del></li> </ul> <p><del>The difference between the internal A weighted and Z weighted noise levels is no greater than 15dB;</del></p> <p><del>k)h) maximum (L<sub>Amax</sub>) noise levels — night (for a minimum of 30 minutes); and</del><br/> <del>h)j) 1/3 octave band spectrums.</del></p> |
| <p><b>F6</b></p> | <p><b>The A real-time Performance Noise Monitoring Program must be developed by a suitably qualified and experienced person and implemented for all stages of mining to monitor and adaptively manage activities to avoid exceedances of the noise limits in Table F1 - Noise limits at a noise sensitive place or commercial place.</b></p> <p><b>The Performance Noise Monitoring Program must include the use of the Type 1 calibrated microphone and audio recordings and must include noise monitoring at the following locations also include a system of real-time performance monitoring against the criteria in Table F1 – Noise limits at:</b></p> <ul style="list-style-type: none"> <li>a) <b>a</b> location in Acland to be identified in the Noise Monitoring Program;</li> <li>b) <b>a</b> location to the east of the New Acland mine to be identified in the Noise Monitoring Program;</li> <li>c) <b>a</b> location to the north of the New Acland mine to be identified in the Noise Monitoring Program; and</li> <li>d) <b>a</b> location to the west of the New Acland mine to be identified in the Noise Monitoring Program.</li> </ul> <p><b>The Stage 3 New Acland mine project may not commence until the administering authority has approved the Performance Noise Monitoring Program.</b></p> <p><b>NOTE:</b> The performance monitoring required under this condition is to be used for performance management <del>rather than monitoring for compliance with Table F1 – Noise limits. An exceedance of the noise limits in Table F1 - Noise limits identified by the performance monitoring does not necessarily translate to a breach of Conditions F1 or F3. However, the administering authority may use the data collected by the performance monitoring equipment, including the data collected from the Type 1 microphone and the</del></p>  |

**Commented [A34]:** As to the changes to F5, see notes in F1. These monitoring parameters are only required by the Applicant's compliance monitoring program.

OCAA agrees with the Applicant that the safety factor is to be in the real time monitoring system. A competent acoustic consultant can determine the correct factor through compliance monitoring.

OCAA does not agree with the Applicant's proposal to remove LA01 – it provides additional useful data to an acoustic consultant ie the 1% data (which is different to the 10% data provided by the LA10 parameter).

However, if the Court recommends that a non-compliance with condition F1 must be established by monitoring in accordance with condition F5 then the introductory words before the list should be re-worded to either say "to the satisfaction of the administering authority" or "as relevant" to ensure that monitoring which does not include those elements may also be used to establish a non-compliance. (assuming that sufficient information is included to make out the non-compliance).

OCAA now accepts the SP and Applicant's wording concerning low frequency noise. OCAA has removed its proposed condition F5a in light of this agreement.

OCAA agrees with the Applicant's changes highlighted in blue.

**Commented [A35]:** The changes to condition F6 are as follows.

The additional words include critical content for the real time performance monitoring system, such as its purpose and that it must include 2 critical aspects: the type 1 validated microphone and the audio recordings. The additional words at the end also reflect the evidence of Mr Elkin and Mr Tardio that DES may use the information collected as evidence at its discretion.

Given that the real time monitoring system is a critical mitigation measures, then it must be in place before Stage 3 commences.

The Applicant has accepted the principle of the administering authority using the performance noise monitoring system in compliance but differences remain between the parties on the appropriate wording of conditions. The Applicant's version is:

"However, the administering authority may consider data collected by the performance noise monitoring system to investigate compliance with Conditions F1 and F3".

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|            |   |
|------------|---|
|            | <p><u>audio data, to assess compliance with <b>Conditions F1 and F3</b> of this environmental authority at its discretion.</u></p>  |
| <b>F6a</b> | <p>An annual noise monitoring program report must be provided to the administering authority that details:</p> <ul style="list-style-type: none"> <li><del>a) the correlation measurements between the real-time monitoring system and the noise sensitive receptors; and</del></li> <li><del>a) how the real-time monitoring system adjusted the real-time measurement data in accordance with the correlation assessment at each monitoring location; and</del></li> <li><del>b) details any exceedances of the noise limits in Table F1 - Noise limits determined at any noise sensitive receptors attributable to mining activities.</del></li> <li><del>a) the areas in which extraction and overburden dumping occurred each month for the preceding 12 months and the areas in which extraction and overburden dumping are predicted to occur each month for the next 12 months;</del></li> <li><del>b) modelling that predicts whether any of the noise limits in Table F1 - Noise limits are likely to be exceeded without adaptive management for the next 12 months;</del></li> <li><del>c) the Areas of Interest (AOI) used in the preceding 12 months and proposed to be used for the next 12 months and the corresponding correction factor applied or proposed to be applied to each AOI including a break down of each correction factor to account for:             <ul style="list-style-type: none"> <li><del>a. exclusion of any frequency bands used in the real time performance monitoring system;</del></li> <li><del>b. the use of directional microphones and AOI;</del></li> <li><del>c. any difference between the noise measured at the monitor and the noise likely to be experienced at the noise sensitive place; and</del></li> <li><del>d. situations in which a single monitor may have more than one AOI</del></li> </ul> </del></li> <li><del>d) a comparison between the monthly compliance monitoring and the real time monitoring data, and a report on how the correction factors were adjusted to account for any material discrepancies during the reporting period;</del></li> <li><del>e) a report on the extent and frequency of noise measured by the Performance Monitoring Program as attributable to mining exceeding the noise limits in Table F1- Noise limits;</del></li> <li><del>e)f) details of any exceedances of the noise limits in Table F1- Noise limits at a noise sensitive place or commercial place identified by the monitoring required by <b>Conditions F4 and F4a</b> non-compliances determined at any noise sensitive receptors attributable to mining activities and the mitigation steps taken in response.</del></li> </ul> |
| <b>F7</b>  | <p>All real-time performance monitoring parameters required by <b>Condition F6</b> must be made publicly available for <del>a period of one month</del> <u>the life of the mine</u>, online and in real-time in a format that includes:</p> <ul style="list-style-type: none"> <li><b>a)</b> the noise limits;</li> <li><b>b)</b> LAeq, adj 15 min interval levels;</li> <li><b>c)</b> LMax, 15 min interval levels; and</li> <li><b>d)</b> <u>exclusion times and a brief statement for the reason for the exclusion.</u></li> </ul> <p><u>The audio recording collected by the real time monitoring system must be retained by the environmental authority holder.</u></p> <p><u>Upon request from the administering authority, copies of any audio recording of monitoring events must be made available and provided to the administering authority's nominated office within 10 business days or an alternative timeframe agreed between the administering authority and the holder.</u></p>   |

**Commented [A36]:** The changes proposed to F6a are as follows:

OCAA has accepted the principle of the Statutory Party provisions but has sought to include further detail given how critical it is to get the correlation factor correct.

In particular, condition F6a(d) is consistent with Mr Elkins' evidence that that comparison should be done.

The fact that it was not done in SLR's last round of monitoring – despite Mr Elkin's apparent agreement to how critical it was - is a good reason to include it as a required condition.

**Commented [A37]:** As to the changes proposed to condition F6, see commentary on changes to F5.

As to retention of data for the life of the mine, Mr Tardio gave evidence about the 'rich history' of the mine and the benefits of having history available. Mr Tardio opined "But certainly, I think, having the data available for the life of the mine, potentially, would be a benefit for any other expert perhaps looking at another situation in the future or another proposal in the future. Now, I only say that because I assume that there's no technological reason why the information that we're talking about here can't be kept on record. We're really talking about information kept on a hard drive or a server." (T 5-40, lines 29-29).

As to (d), OCAA accepts the words agreed by SP and the Applicant

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|-----------|---|
|           | <u>Data must be retained by the environmental authority holder for the life of the mine.</u>  |
| <b>F8</b> | <p><b>Noise management</b></p> <p>A Noise and Vibration Management Plan must be developed by a suitably qualified and experienced person <u>(who has been approved by the administering authority)</u> and <u>must be approved by the administering authority prior to the commencement of the Stage 3 New Acland mine project.</u></p> <p><u>The Noise and Vibration Management Plan must be implemented for all stages of mining within 3 months upon the grant of ML50232 and/or ML700002.</u></p>   |
| <b>F9</b> | <p>The Noise and Vibration Management Plan must incorporate a program for continuous improvements for the management of noise emissions caused by mining operations and must include, but is not limited to:</p> <p>a) a detailed description of the noise management system;</p> <p>b) a description of the noise mitigation measures that would be implemented to ensure best practice noise management is being employed, is regularly benchmarked against contemporary industry standards and is regularly reviewed to ensure continual improvement;</p> <p>c) the <u>Compliance and Performance Noise Monitoring Programs</u> described in <b>Conditions F4 and , F5, F6 and Table F2 – Compliance noise monitoring locations and frequency;</b></p> <p>d) a comprehensive noise management system that uses a combination of predictive meteorological forecasting and real-time noise monitoring data to guide the day to day planning of mining operations and the implementation of both proactive and reactive mitigation measures to ensure compliance with these conditions, improved understanding of noise data at the monitoring locations in <b>Table F2 - Compliance noise monitoring locations and frequency</b> and its correlation with the noise data collected from the locations specified in <b>Condition F6;</b></p> <p>d)-</p> <p>e) <u>a protocol for ensuring the real time noise monitoring system remains corrected and correlated to account for:</u></p> <p style="margin-left: 40px;">a. <u>exclusion of any frequency bands used in the real time performance monitoring system;</u></p> <p style="margin-left: 40px;">b. <u>the use of directional microphones and AOI;</u></p> <p style="margin-left: 40px;">c. <u>any difference between the noise measured at the monitor and the noise likely to be experienced at the noise sensitive place</u></p> <p><u>including a protocol to ensure that a re-correction or correlation assessment is undertaken each time there is a change in an AOI or a change (more than 300m) in the distance between mining activities and the monitoring location.</u></p> <p>f) <u>a protocol for ensuring avoidance of exceedances of the LA max noise limits;</u></p> <p>g) <u>a requirement for an automatic addition of +4 dB to monitoring data recorded in the real time monitoring system when sound with a tonal and impulsive character has been identified. This system will remain in place until a quantitative way of applying tonal and impulsive character adjustments to the monitored noise level has been submitted to and approved by the administering authority;</u></p> |

**Commented [A38]:** As to F8, the Applicant has accepted the principle of the administering authority being required to approve the plan but there remain differences between the parties on the appropriate wording of conditions.

**Commented [A39]:** F9(c) makes clear that there are two programs – see commentary on F4, and why the Applicants’ version does not make sense.

F9(e) – this protocol is critical for the reasons given by Mr Elkin and Mr Tardio. See T5-15, line 19 to T5-17, line 38, T5-63, line 28 to T5-64, line 2 and JER Noise [26].

F9(f) this protocol is critical for the reasons given by Mr Tardio. While both experts agree that some form of management will be required (JER Noise [92]), Mr Tardio emphasised the importance of this given the mine has not previously been required to address Lamax (T 5-26, line 35 to T 5-27, line 13)

F9(g) as per the evidence of Mr Elkin and Mr Tardio where ultimately, Mr Elkin agreed with Mr Tardio that an appropriately precautionary approach would be to add an allowance of 4dB to any impulsive or tonal noise until that correlation was in place and approved by the administering authority (T 5-24, line 43 to T 5-25, line 34)

In addition to grammatical changes to (i), the requirement for a peer review is in a separate condition, the requirement that the report is clear etc has been moved from condition F10 to this part of the document (where it makes sense) and the requirement for an analysis has been expanded to also set out the steps taken in response to exceedances.

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|            | <p><u>e)h</u>a protocol for recording and responding to complaints;</p> <p>i) the content of the monthly compliance report required under <b>Condition 3</b> of the imposed conditions of the Coordinator-General, including:</p> <ul style="list-style-type: none"> <li>— <u>the data that must be provided</u> in that report, <u>including blast monitoring results</u>; and</li> <li>• <u>a peer review of that content, including blast monitoring results and must include</u></li> <li>• <u>that the data must be analysed</u> against the noise limits detailed in <b>Table F1 – Noise limits and any exceedances of the noise limits in Table F1- Noise limits at a noise sensitive place or commercial place attributable to mining activities must be identified and the mitigation steps taken in response described; and</b></li> <li>• <u>that the report must be produced to present information from noise monitoring in a manner that is clear, open and unambiguous</u>.</li> </ul>   |
| <b>F10</b> | <p>The environmental authority holder must, at their own cost, appoint an independent acoustic consultant to review the monthly noise reports <u>required under Condition 3 of the imposed conditions of the Coordinator-General format for a twelve (12) month period</u> following the commencement of reporting. The <u>peer review</u> monthly reports must be submitted to the administering authority <u>within 14 days of submission of the monthly reports and be made publicly available within 7 days of being provided to the administering authority</u>. The <u>peer review reports must assess the content and the formatting of the monthly reports</u>. <u>A report must be produced to present information from noise monitoring in a manner that is clear, open and unambiguous</u>.</p>  |
| <b>F11</b> | <p><b>Mitigation</b></p> <p>Upon receiving a written request from the owner of a noise sensitive place shown in <b>Figure 5 — Location of sensitive receptors</b> the environmental authority holder must implement additional reasonable and feasible noise mitigation measures at the noise sensitive place in consultation with the owner.</p> <p>If within <b>3 months</b> of receiving this request, the environmental authority holder and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to a suitably qualified and experienced person in relation to noise appointed by the Chief Executive of the administering authority or the President for the time being of the Institute of Engineers for resolution. The suitably qualified and experienced person's decision as to the mitigation measures to be implemented must be final.</p> <p>The environmental authority holder is responsible for payment of costs of the suitably qualified and experienced person in relation to noise.</p> <p><u>The implementation of mitigation measures does not remove the requirement for the environmental authority holder to achieve compliance with the noise limits in Table F1 unless there is a private agreement to the contrary between the environmental authority holder and the owner from time to time.</u></p> |

**Commented [A40]:** As to F10, the word 'format' is apt to create uncertainty. The peer review must be a review of content not just 'format'. There should be a timeframe for the peer review. This approach is consistent with the NVMP, so should not be controversial:

*6.3. Independent Review of Compliance Monitoring  
In accordance with EA Condition F10, for the first 12 months of the Stage 3 Mine, the monthly Compliance Noise Monitoring Report must be reviewed by an appropriately-qualified independent acoustic consultant. This independent acoustic consultant must prepare their own (independent) report/memorandum, within two weeks of receiving the draft report, stating the process they have used to review the noise monitoring, analysis and findings and their acceptance (or otherwise) of the monthly noise monitoring report.*

**Commented [A41]:** The change to F11 is self explanatory and addresses the uncertainty raise by Mr Tardio.

**Commented [A42]:** As to Table F2, the changes are agreed as between the Applicant and OCAA.

IN accordance with Mr Tardio's evidence. Mr Elkin agreed that Mr Tardio's suggestion would provide a more robust monitoring program.

The monthly program is no better than the program which has occurred in the past and has failed to capture days upon which complaints were made.

Mr Tardio's evidence was that this additional requirement was:

- Necessary if the real time system could not be used to check compliance (but accepted that if data from the real time system could be used to check compliance, then it would be unnecessary because that monitor is there, 24 hours 7 days a week anyway and collects virtually the same data as an unattended monitoring program)
- Necessary for the first 6-12 months while the correlation was being established.

OCAA's position is that the 12 month unattended monitoring should be required even if the real time monitoring data can be used to check compliance, because it imposes a requirement for an acoustic consultant to actually do the monitoring and report, which is a benefit and provides a transparent process.

Ultimately Mr Elkin agreed that this would be the most robust system (T 5-25, lines 13-16 and T 6-18, lines 5-11)

**Table F2 - Compliance noise monitoring locations and frequency**

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| Monitoring location*  |  | Frequency   |
|---|--|---|
| 1 (Acland)  |  | Monthly   |
| 34 (rail spur), 35 and 38 (or alternative noise sensitive places identified in the Noise Monitoring Program developed pursuant to condition F4 <sup>5</sup> )   |  | Monthly   |
| 4, 8 and 10 (or alternative noise sensitive places identified in the Noise Monitoring Program developed pursuant to condition F4 <sup>5</sup> )   |  | Monthly   |
| 11, 15, 16 (if occupied) and 19 (or alternative noise sensitive places identified in the Noise Monitoring Program developed pursuant to condition F4 <sup>5</sup> )   |  | Monthly   |
| <del>Unattended monitoring, 7 days</del> <u>Seven (7) days unattended monitoring at the above noise sensitive places or alternate locations identified in the Noise Monitoring Program developed pursuant to condition F4</u> |  | Monthly for first 12 months <u>after approval of the Noise Monitoring Program</u> |

\*See Figure 5 - Location of sensitive receptors

|            |   |
|------------|---|
| <b>F12</b> | <p><b>Airblast overpressure nuisance</b></p> <p>The holder of this environmental authority must ensure that blasting does not cause the limits for peak particle velocity and air blast overpressure in <b>Table F3 — Blasting noise limits</b> to be exceeded at a <b>noise</b> sensitive place or commercial place.</p>   |
| <b>F13</b> | <p>The holder of this environmental authority must develop and implement a blast monitoring program to monitor compliance with <b>Table F3 — Blasting noise limits</b> for:</p> <ul style="list-style-type: none"> <li>a) At least 90% of all blasts undertaken on this site in each year at the nearest <b>noise</b> sensitive place or commercial place to the centroid of the blast; and</li> <li>b) All blasts conducted during any time period specified by the administering authority at the nearest <b>noise</b> sensitive place or commercial place.</li> </ul> <p>Results of the blast monitoring program must be included in the monthly compliance monitoring report provided to the administering authority.</p> |

Commented [A43]: OCAA accepts the clarification of 'noise' sensitive place

Commented [A44]: OCAA accepts the clarification of 'noise' sensitive place

**Table F3: Blasting noise limits**

Commented [A45]: OCAA accepts the clarification of 'noise' sensitive place

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|  | <b>Noise sensitive place or commercial place blasting noise limits</b> |
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| Blasting noise limits                   | Monday to Friday 7am to 6pm<br>Saturday 9am to 1 pm   | Monday to Friday: before 7am and after 6pm<br>Saturday: before 9am and after 1 pm<br>Sunday and Public Holidays <sup>^</sup> |
|---|---|--|
| Airblast overpressure                   | 115 dB (Linear) Peak for 9 out of 10 consecutive blasts initiated and not greater than 120 dB (Linear) Peak at any time                   | No blasting  |
| Ground vibration peak particle velocity | 5mm/second peak particle velocity for 9 out of 10 consecutive blasts and not greater than 10 mm/second peak particle velocity at any time | No blasting  |

<sup>^</sup> Blasting not permitted on Sundays and public holidays

| Agency interest: Sewage Treatment |   |
|-----------------------------------|---|
| Condition number                  | Condition   |
| G1                                | All effluent released from the treatment plant must be monitored at the frequency and for the parameters specified in <b>Table G1 — Sewage Effluent Quality Targets for Dust Suppression and Irrigation</b> . |

**Table G1: Sewage Effluent Quality Targets for Dust Suppression and Irrigation**

| Contaminant   | Unit   | Release limit | Limit type | Frequency |
|---|--|---------------|------------|-----------|
| 5-day Biochemical oxygen demand (uninhibited)                                 | mg/L   | 20            | Maximum    | Quarterly |
| Faecal coliforms, based on the average of a minimum of five samples collected | Colony forming units/100ml<br>Colonies/100ml | 1000          | Maximum    | Quarterly |
| Total suspended solids  | mg/L   | 30            | Maximum    | Quarterly |
| Nitrogen  | mg/L   | 15            | Maximum    | Quarterly |
| Phosphorus  | mg/L   | 1000          | Maximum    | Quarterly |
| pH  | pH units                                     | 6.0 — 9.0.    | Range      | Quarterly |

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| G2 | Treated sewage effluent used for dust suppression or irrigation must not exceed sewage release limits defined in <b>Table G1 — Sewage Effluent Quality Targets for Dust Suppression and Irrigation</b> . |
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| <b>G3</b> | Sewage effluent used for dust suppression or irrigation must not cause spray drift or overspray to any sensitive place.   |
| <b>G4</b> | Subject to <b>Condition G5</b> , sewage effluent from sewage treatment facilities must be reused or evaporated and must not be directly released from the sewage treatment plant to any water way or drainage line.   |
| <b>G5</b> | In periods of wet weather or following wet weather, when irrigation of effluent is reasonable not practicable and when effluent storage ponds are full, the release of effluent to waters is permitted in accordance with the release limits in <b>Table G1 - Sewage Effluent Quality Targets for Dust Suppression and Irrigation</b> and locations specified in <b>Table C1 - Mine-affected water release points, sources and receiving waters</b> . |
| <b>G6</b> | The holder of the environmental authority must ensure that irrigation of effluent is carried out in such a manner that prevents and or minimises environmental harm.  |
| <b>G7</b> | The holder of this environmental authority is authorised to accept treated wastewater from the Wetalla Wastewater Reclamation Facility.   |
| <b>G8</b> | Sewage effluent used for dust suppression or irrigation must not exceed sewage effluent release limits defined in <b>Table G1 - Sewage Effluent Quality Targets for Dust Suppression and Irrigation</b> .   |

| Agency interest: Land and Rehabilitation |  |
|--|--|
| Condition number                         | Condition  |
| <b>H1</b>                                | <b>Buffer Zone</b><br>The holder of the environmental authority must not cause any disturbance within 50 metres of the high bank of Lagoon Creek (buffer zone) as shown on <b>Figure 3 - Lagoon Creek, buffer and levee</b> unless in accordance with Condition <b>H2</b> and <b>H3</b> .                    |
| <b>H2</b>                                | The holder of the environmental authority is authorised to construct and maintain a flood protection levee and access road for inspection purposes, with the tow of the levee being no closer than 50 metres from the high bank of Lagoon Creek as shown on <b>Figure 3 - Lagoon Creek, buffer and levee</b> |
| <b>H3</b>                                | The holder of the environmental authority is authorised to access the 50 metre buffer zone as shown on <b>Figure 3 - Lagoon Creek, buffer and levee</b> , for the purposes of maintaining the integrity of the flood protection levee, riparian conservation and weed management purposes.                   |
| <b>H4</b>                                | The flood protection levee must be designed and inspected by a suitably qualified and experienced person. The final design level of the levee crest must be above the predicted 1,000 year ARI event flood level.  |
| <b>H5</b>                                | Any section of the outside face of the levee must be treated with cover material and grass seeded (unless rock armoured) within three months of completion of the earthworks for that section of the outside face of the levee.  |

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| H6  | <p>The condition of the levee must at a minimum be assessed:</p> <ul style="list-style-type: none"> <li>a) by the environmental authority holder <b>within 1 week</b> of any storm of such intensity that greater than 25mm of rain falls in less than 3 hours; and</li> <li>b) by a suitably qualified and experienced person at least once per year between the months of May and October inclusive (i.e. during the 'dry' season and before the onset of the 'wet' season).</li> </ul>   |
| H7  | <p>Remedial works identified as necessary during assessments conducted under <b>Condition H6</b> must be commenced <b>within 30 days</b> unless delayed by inclement weather.</p>   |
| H8  | <p>Any actions and incidents on site that may impact upon the integrity of the levee bank must be notified to the administering authority in accordance with <b>Condition H4</b>.</p>   |
| H9  | <p>For Stage 3 New Acland Mine Project, land disturbed by mining must be rehabilitated in accordance with <b>Table H4: Rehabilitation Requirements Stage 3 New Acland Mine Project, Table H5: Rehabilitation Acceptance Criteria - Grazing Lands Stage 3 New Acland Mine Project and Table H6: Rehabilitation Acceptance Criteria - Treed Areas Stage 3 New Acland Mine Project.</b></p>  |
| H10 | <p><b>Final Land Use and Rehabilitation Plan</b></p> <p>Within twelve months <b>upon the grant of ML50232 and ML700002</b> the holder of this environmental authority must develop and implement a Final Land Use and Rehabilitation Plan to ensure that all areas disturbed by mining activities will be suitably rehabilitated in accordance with <b>Table H1 – Final Land Use and Rehabilitation Approval Schedule – ML50170 and ML50216, Table H2 - Landform design criteria for New Acland Coal Mine – ML50170 and ML50216, Table H3: Residual Void Design – ML50170 and ML50216, Table H4: Rehabilitation Requirements Stage 3 New Acland Mine Project, Table H5: Rehabilitation Acceptance Criteria — Grazing Lands Stage 3 New Acland Mine Project and Table H6: Rehabilitation Acceptance Criteria — Treed Areas Stage 3 New Acland Mine Project.</b></p> <p>The Plan must include, but is not limited to the following:</p> <ul style="list-style-type: none"> <li>a) disturbance type;</li> <li>b) disturbance area;</li> <li>c) pre and post mine land descriptions;</li> <li>d) pre and post mine land capability;</li> <li>e) analogue site(s) identification;</li> <li>f) a description of rehabilitation management techniques incorporating works and monitoring programs and timetables;</li> <li>g) indicators for success; and</li> <li>h) keeping of appropriate records or rehabilitation measures implemented including taking of photographs demonstrative of rehabilitation achieved and the preparation of annual rehabilitation progress reports.</li> </ul> <p><b>NOTE:</b> The Final Land Use and Rehabilitation Plan is to be managed through the Plan of Operations.</p> |

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| <b>H11</b> | <p>Rehabilitation of disturbed areas must achieve the following:</p> <ul style="list-style-type: none"> <li>a) For mining areas other than Stage 3 disturbance areas, and in locations shown in Figure X1: <ul style="list-style-type: none"> <li>i. 553ha of Grazing Land Suitability Class 2;</li> <li>ii. 29ha of Grazing Land Suitability Class 3;</li> <li>iii. 824ha of Grazing Land Suitability Class 4; and</li> <li>iv. 63ha of Grazing Land Suitability Class 5.</li> </ul> </li> <li>b) For Stage 3 disturbance areas and in locations shown in <b>Figure X2</b>: <ul style="list-style-type: none"> <li>i. 541ha of Cropping Land Suitability Class 3; and</li> <li>ii. 471ha of Grazing Land Suitability Class 4.</li> </ul> </li> <li>c) For the 3 mined voids as part of stage 3, as per the requirements of <b>Table X1</b>.</li> </ul> |
|------------|---|

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**New Table Ha**

| Location / Mined Void Name | Area  | Rehabilitation Outcome                             |
|----------------------------|-------|--|
| Manning Vale West Pit      | 163ha | Depressed landform and grazing suitability Class 4 |
| Manning Vale East Pit      | 154ha | Depressed landform and grazing suitability Class 4 |
| Willeroo Pit               | 213ha | Depressed landform and grazing suitability Class 4 |

**Table H1: Final Land Use and Rehabilitation Approval Schedule — ML 50170 and ML50216**

|  | Disturbance Type       |               |                        |                  |                            |                    |                                |
|--|------------------------|---------------|------------------------|------------------|----------------------------|--------------------|--------------------------------|
|  | Residual Voids         | Tailings Dams | Recontoured spoil area | Waste Rock Dumps | Infrastructure & ROM Areas | Roads and Tracks   | Water Supply and Sediment Dams |
| <b>Tenure ID</b>                                 | ML50216                | ML50170       | ML50170<br>ML50216     | ML50216          | ML50170                    | ML50170<br>ML50216 | ML50216                        |
| <b>Projective Surface Area (ha)</b>              | 55                     | 70            | 740                    | 100              | 5                          | 5                  | 40                             |
| <b>Post mine land use</b>                        | Possible water storage | Grazing       | Grazing                | Grazing          | Grazing                    | Grazing            | Possible water storage         |
| <b>Post mine land suitability classification</b> | 5                      | 5             | 3-4                    | 4                | 4                          | 4                  | 5                              |

**NOTE:** The Final Land Use and Rehabilitation Plan will be managed through the Plan of Operations.

**Table H2: Landform design criteria for New Acland Coal Mine— ML 50170 and ML50216**

| Disturbance Type           | Slope Range (%)     | Projective Surface Area (ha) |
|----------------------------|---------------------|------------------------------|
| Residual Voids (high wall) | 0 - 214 % or 65°    | 55                           |
| Residual Voids (low wall)  | 0 - 100 % or 45°    |                              |
| Tailings Dam Top           | 0 - 20 % or 11.5°*  | 60                           |
| Tailings Dam Wall          | 0 - 20 % or 11.5° * | 10                           |
| Recontoured Spoil Area     | 0 - 20 % or 11.5° * | 740                          |

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| <b>Disturbance Type</b>      | <b>Slope Range (%)</b> | <b>Projective Surface Area (ha)</b> |
|------------------------------|------------------------|-------------------------------------|
| Waste Rock Dumps             | 0 - 20 % or 11.5° *    | 100                                 |
| Infrastructure and ROM areas | 0 - 18% or 10°         | 5                                   |
| Roads and Tracks             | 0 - 10 % or 5.7°       | 5                                   |

**NOTE:** \*= The slope depends on the vertical height and slope length. See Landform Acceptance Criteria.

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Table H3: Residual Void Design— ML 50170 and ML50216

| Void Identification        | Void wall - competent rock slope (%) | Void wall - incompetent rock slope (%) | Void maximum surface area (ha) |
|----------------------------|--------------------------------------|--|--------------------------------|
| Central Pit/South Pit Void | 65° or 214%                          | 45° or 100%                            | 55                             |

Table H4: Rehabilitation Requirements Stage 3 New Acland Mine Project

| Mine Domain               | Rehabilitation Goal | Rehabilitation Objectives   | Indicators   | Completion Criteria  |
|---------------------------|---------------------|---|--|--|
| Solid Waste Rock Disposal | Safe                | Site safe for humans and animals  | Structurally safe and shallow slopes (geotechnically stable). No hazardous materials (geochemically benign).   | Monitoring / observation demonstrates safe site  |
|                           | Non-polluting       | No environmental harm attributed to adverse chemical conditions within the waste rock dumps | Minimise erosion (to at least <10t/ha/yr) through selective placement of mine waste, adequate vegetation cover. Runoff and seepage does not cause environmental harm   | Suitable for low intensity grazing. Runoff and discharge water (including seepage) meets specified limits. |
|                           | Stable              | Minimise erosion  | Wastes selectively placed above and below original ground level to agreed slopes. Adequate ground cover established to control erosion. Runoff control measures (contour banks, etc) effective in controlling erosion. | Suitable for low intensity grazing   |
|                           | Self-sustaining     | To return to agreed grazing land capability   | Slope and other landform design criteria achieved. Establish adequate vegetation cover.  | Refer <b>Table H5</b> and <b>Table H6</b>  |
| Tailings Dams             | Safe                | Site safe for humans and animals  | Structurally safe (geotechnically stable). Adequate capping. Accessibility to voids is permanently removed.  | Monitoring / observation demonstrates safe site  |
|                           | Non-polluting       | Acid mine drainage will not cause environmental harm  | Adequately capped. Minimise erosion through adequate vegetation cover to less than 10t/ha/yr. Runoff and seepage controlled by water management.   | Monitoring meeting release limits. Suitable for low intensity grazing                                      |
|                           | Stable              | Minimise erosion  | Stored in both pits below natural surface level and in dams above  | Monitoring demonstrates  |

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| Mine Domain                 | Rehabilitation Goal | Rehabilitation Objectives  | Indicators  | Completion Criteria   |
|-----------------------------|---------------------|--|---|---|
|                             |                     |  | natural surface. Establish adequate vegetation cover.   | revegetation success. No structural erosion present. Suitable for low intensity grazing |
|                             | Self-sustaining     | To return to agreed grazing land capability  | Monitoring demonstrates successful revegetation.  | Refer <b>Table H5</b> and <b>Table H6</b>   |
| Mine Infrastructure Areas   | Safe                | Site safe for humans and animals   | Hazardous materials removed.  | Monitoring / observation demonstrates safe site   |
|                             | Non-polluting       | Undertake contaminated land assessment.  | Remediate contamination so that runoff and seepage are of good quality.                                     | Monitoring meeting release limits.  |
|                             | Stable              | Minimise erosion   | Remove infrastructure or allow continued use of useful infrastructure. Establish adequate vegetation cover. | Slope will be a maximum of 17° (30%)  |
|                             | Self-sustaining     | To return to agreed grazing land capability  | Return to previous use (grazing). Establish adequate groundcover.   | Refer <b>Table H5</b> and <b>Table H6</b>   |
| Linear Infrastructure areas | Safe                | Site safe for humans and animals   | Structurally safe (geotechnically stable).  | Monitoring / observation demonstrates safe site   |
|                             | Non-polluting       | No environmental harm attributed to adverse chemical conditions within the rehabilitation areas. | Runoff and seepage controlled by water management (e.g. dams).  | Monitoring meeting release limits.  |
|                             | Stable              | Minimise erosion   | Remove infrastructure, rip reshape and revegetate or allow continued use of useful infrastructure.          | Suitable for low intensity grazing  |
|                             | Self-sustaining     | To return to agreed grazing land capability  | Remove infrastructure or allow continued use of useful infrastructure. Establish adequate vegetation cover. | Refer <b>Table H5</b> and <b>Table H6</b>   |

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Table H5: Rehabilitation Acceptance Criteria Stage 3 New Acland Mine Project — Grazing Lands

| Land Suitability Class | Acceptance Criteria — Grazing Land |                                       |   |             |                         |                             |                |
|------------------------|------------------------------------|---------------------------------------|---|-------------|-------------------------|-----------------------------|----------------|
|                        | Non-polluting                      | Stability and Sustainability Land Use |   |             |                         |                             |                |
|                        | Active Rill / Gully Erosion        | Vegetation Cover                      | Native and Exotic Grass Species Diversity (spp./ha) | Slopes      | Geo-technical Stability | Active Rill / Gully Erosion | Declared Weeds |
| 2 to 5                 | Absence (<10t/ha/yr)               | >50%                                  | ≥4  | Maximum 17° | stable                  | absence                     | absence        |

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Table 15 Rehabilitation Acceptance Criteria – Grazing Land

| Indicator                                       | Acceptance Criteria  |
|---|--|
| <b>Ecological</b>                               |  |
| Vegetation cover                                | ≥70%   |
| Grass species diversity                         | ≥4 pasture species   |
| Prohibited or Restrictive invasive plants (Qld) | Absent   |
| <b>Geomorphological</b>                         |  |
| Slope <sup>1</sup>                              | 17° (maximum)  |
| Active rill/gully erosion <sup>2</sup>          | Rill/gully erosion will be managed to be consistent with surrounding in-situ landforms.<br>Identification and repair of areas of concern (e.g. large scale rill/gully erosion)                                 |
| Geotechnical stability                          | Stable surface, no subsidence  |
| <b>Physical</b>                                 |  |
| Field texture                                   | Sandy loam to light clay (rigid soils i.e. duplex soils)<br>Clay loam to heavy clay (non-rigid soils i.e. Vertosols)   |
| Bulk density (BD)                               | 1.1 – 1.8 gm/cm <sup>3</sup>   |
| Emerson dispersion test                         | Class 2, 3, 4, 5 or 6  |
| Depth of effective root zone (ERZ)              | 250 – 1000 millimetres   |
| <b>Chemical</b>                                 |  |
| pH <sub>Ca</sub>                                | pH <sub>w</sub> 6.5 – 9.5, pH <sub>Ca</sub> 6.0 – 8.0  |
| Electrical Conductivity (EC/se)                 | <b>EC1:5<sub>w</sub></b><br>120 – 240 μS/cm for low salinity in sandy soils<br>90 – 300 μS/cm for low salinity in clay soils<br><b>EC<sub>sa</sub></b> 950-1900 μS/cm for low – moderate salinity in all soils |
| Cation Exchange Capacity (CEC)                  | 9 – 45 meq/100 gm  |
| Exchangeable Sodium Percentage (ESP)            | <10  |
| Total metals –Cu, Zn                            | <i>Risk Based Ecological Levels</i><br>Zn – 190 mg/kg, Cu – 90 mg/kg<br><i>Typical Background Levels</i><br>Cu – 3-412 mg/kg, Zn – 5-92mg/kg,  |
| Total Organic Carbon (TOC)                      | >1% for total organic carbon   |

1. This criterion has been developed to meet the standards set in the EA (Schedule H Table H5). Maximum slope will be 17° as authorised but consideration will be given to the lower slope angles.  
2. Should active rill/gully erosion be identified, erosive soil loss will be estimated using RULSE.

Table H6: Rehabilitation Acceptance Criteria Stage 3 New Acland Mine Project — Treed Areas

| Land Suitability Class | Acceptance Criteria — Grazing Land Treed Areas |                                    |  |   |        |                         |                             |
|------------------------|--|------------------------------------|--|---|--------|-------------------------|-----------------------------|
|                        | Non-polluting                                  | Stability and Sustainable Land Use |  |   |        |                         |                             |
|                        |  | Active Rill / Gully Erosion        | Vegetation Cover (including tree / shrub canopy) | Native Tree / Shrub & Native / Exotic Grass Species | Slopes | Geo-technical Stability | Active Rill / Gully Erosion |
|                        |  |                                    |  |   |        |                         |                             |

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|        |                      |      |  |             |        |         |         |
|--------|----------------------|------|--|-------------|--------|---------|---------|
|        |                      |      | Diversity (spp./ha)  |             |        |         |         |
| 2 to 5 | Absence (<10t/ha/yr) | >50% | Eucalyptus spp. ≥2<br>Acacia spp. ≥2<br>Other tree / shrub spp. ≥2<br>Grass ≥3 | Maximum 17° | stable | absence | absence |

Table 16 Rehabilitation Acceptance Criteria – Treed Areas

| Land Suitability Class | Acceptance Criteria       |                                    |   |                    |                        |   |   |
|------------------------|---------------------------|------------------------------------|---|--------------------|------------------------|---|---|
|                        | Non-Polluting             | Stability and Sustainable Land Use |   |                    |                        |   |   |
|                        | Active Rill/Gully Erosion | Vegetation Cover                   | Native & Exotic Grass Species <sup>1</sup>                                    | Slope <sup>2</sup> | Geotechnical Stability | Active Rill/Gully Erosion   | Prohibited or Restrictive Invasive Plants (Old) |
| 2-5                    | Absence (<10t/ha/yr)      | ≥50%                               | Eucalyptus sp. ≥2;<br>Acacia sp. ≥2;<br>Other tree/shrub sp. ≥2;<br>Grass ≥ 3 | Maximum 17°        | Stable                 | Rill/gully erosion will be managed to be consistent with surrounding in-situ landforms. Identification and repair of areas of concern (e.g. large scale rill/gully) | Absence   |

1. The majority of the rehabilitated land will be returned to grazing with exotic pastures established. Where pockets of trees/shrubs have been established the diversity criteria will apply taking into account the limited diversity of some remnant communities near the Mine.
2. This criterion has been developed to meet the standards set in the EA (Schedule H Table H6). Maximum slope will be 17° as authorised but consideration will be given to the lower slope angles

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| <b>H11</b> | All areas significantly disturbed by mining activities must be rehabilitated in accordance with the <del>Mine Closure Plan outlined in</del> <b>Condition H13</b> Final Land Use and Rehabilitation Plan.  |
| <b>H12</b> | Rehabilitation must commence progressively as land becomes available for rehabilitation and is no longer being mined. <del>in accordance with the plan of operations.</del>  |
| <b>H13</b> | <b>Closure and post closure</b><br>The environmental authority holder must submit a Mine Closure Plan to the administering authority at least <b>five years prior</b> to the surrender of this environmental authority.  |
| <b>H14</b> | When the deposition of tailings ceases, the holder of this Environmental Authority must install a final cover system to the Tailings Storage Facility, which effectively minimises:<br>a) infiltration of water into the Tailings Storage Facility; and<br>b) the likelihood of any erosion occurring to either the final cover system, dumped spoil material or deposited tailings.   |
| <b>H15</b> | The final cover system must include an inert layer to reduce infiltration and an upper/final layer of earthen material that is capable of sustaining plant growth.   |
| <b>H16</b> | <b>Sustainable final land use outcomes</b><br>Areas that are to be progressively rehabilitated must comply with, but not be limited to, the following outcomes:<br>a) All areas disturbed by mining activities must be rehabilitated to the landform design criteria defined in the Final Land Use and Rehabilitation Plan required by <b>Conditions H10 to H13</b> ; and<br>b) The final landforms must be stable with erosion rates comparable to a suitable analogue site.  |
| <b>H17</b> | <b>Grazing pasture outcome for ML50170 and ML50216</b><br>Areas which are to be progressively rehabilitated to grazing pasture must comply with the following outcomes;<br>a) generate a self-sustaining vegetation with projective cover, species composition and species distribution comparable with that of analogue sites to be determined by the study detailed in <b>Condition H10</b> e.g. planting local native grass and shrub species where possible. These vegetation species must be listed in the Final Land Use and Rehabilitation Plan;<br>b) all areas disturbed by mining activities must be rehabilitated to the landform design criteria defined in <b>Table H2 Landform design criteria for New Acland Coal Mine— ML50170 and ML50216</b> ;<br>c) a measure of productivity (e.g. sustainable dry matter production, stock live weight gain) are comparable to the selected analogue sites detailed in <b>Condition H18</b> . |
| <b>H18</b> | Complete an investigation into rehabilitation of disturbed areas and submit a report to the administering authority proposing acceptance criteria to meet the outcomes in the <del>Condition H17 and landform design criteria in</del> <b>Table H2 Landform design criteria for New Acland Coal Mine — ML50170 and ML50216</b> Final Land Use and Rehabilitation Plan within <b>twelve months</b> of the issue of the Environmental Authority.   |

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| H19 | <p><b>Residual void outcome</b></p> <p>Residual voids must comply with the following outcomes:</p> <p>a) residual voids must not cause any serious environmental harm to land, surface waters or any recognised ground water aquifer, other than the environmental harm constituted by the existence of the residual void itself, and subject to any other condition within this Environmental Authority; and</p> <p>b) residual voids must comply with <b>Table H3 - Residual Void Design— ML50170 and ML50216</b>.</p>   |
| H20 | <p>Complete an investigation into residual voids and submit the findings in the Mine Closure Plan outlined by <b>Condition H13</b> to the administering authority proposing acceptance criteria to meet the outcomes in <b>Condition H19</b> and landform design criteria in <b>Table H3 — Residual Void Design— ML50170 and ML50216</b>.</p>  |
| H21 | <p>All areas within the mining lease will be managed to reduce the spread of declared plants including both disturbed and undisturbed areas.</p>   |
| H22 | <p><b>Topsoil</b></p> <p>a) Topsoil must be stripped and stockpiled in accordance with the approved Topsoil Management Plan; and</p> <p><del>The environmental authority holder must ensure that topsoil is removed and stockpiled prior to carrying out any disturbance activities such that topsoil must be strategically stripped ahead of mining activities, including the establishment of spoil dump areas; and,</del></p> <p>b) Topsoil must not be disposed of in a pit or otherwise sterilised from reuse.</p>  |
| H23 | <p><b>Contaminated land</b></p> <p>Before applying for surrender of a mining lease, the holder must (if applicable) provide to the administering authority a site investigation report under the Act, in relation to any part of the mining lease which has been used for notifiable activities or which the holder is aware is likely to be contaminated land, and also carry out any further work that is required as a result of that report to ensure that the land is suitable for its final land use.</p>  |
| H24 | <p>Before applying for progressive rehabilitation certification for an area, the holder must (if applicable) provide to the administering authority a site investigation report under the Act, in relation to any part of the area the subject of the application which has been used for notifiable activities or which the holder is aware is likely to be contaminated land, and also carry out any further work that is required as a result of that report to ensure that the land is suitable for its final land use in accordance with <b>Condition H910</b>.</p> |
| H25 | <p>Minimise the potential for contamination of land by hazardous contaminants.</p>   |
| H26 | <p><b>Impacted land</b></p> <p>The holder of the environmental authority must provide the approved report required by <b>Imposed Condition 9</b>, of Appendix 1, of the CG's report, to the administering authority, within <b>20 business days</b> of it being approved.</p>  |
| H27 | <p><del>The holder of the environmental authority must provide a report demonstrating fulfilment of the requirements of <b>Imposed Condition 9(i) — (k)</b> in the CG's report, to the administering authority with any surrender application.</del></p>   |

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|------------|---|
| <b>H28</b> | <b>Land resource survey</b><br>The holder of the environmental authority must provide the approved report required by <b>Imposed Condition 6</b> , of Appendix 1, of the CG's report, to the administering authority, within <b>20 business days</b> of approval.                                     |
| <b>H29</b> | <b>Rehabilitation of disturbed land</b><br>The holder of the environmental authority must provide the approved rehabilitation success criteria required by <b>Imposed Condition 7</b> , of Appendix 1, of the CG's report, to the administering authority within <b>20 business days</b> of approval. |

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| Agency interest: Biodiversity |  |
|-------------------------------|--|
| Condition number              | Condition  |
| I1                            | The holder of the environmental authority must ensure that staff induction and environmental awareness programs include reference to <i>Anomalopus mackayi</i> (Five-clawed Worm-skink, Long-legged Worm-skink) and <i>Tympanocryptis pinguicolla</i> (Grassland Earless Dragon, South-eastern Lined Earless Dragon) to ensure that any individuals that might be present in the project area are identified and reported to the mine site environmental officer for recovery and release into suitable habitat.   |
| I2                            | <p>The holder of this Environmental Authority must develop and implement a Conservation Management Plan for the riparian area of Lagoon Creek and existing stands of regional ecosystems RE11.8.5 and RE11.8.3 located on Bottle Tree Hill and submit the Plan to the Administering Authority and the Department of Natural Resources, Mines and Energy within twelve months of the date this environmental authority takes effect. The Plan must for the two proposed conservation areas (Lagoon Creek and Bottle Tree Hill):</p> <ol style="list-style-type: none"> <li>ensure the combined surface area to be protected and enhanced is no less than the surface area of the regional ecosystems proposed to be cleared by mining activities on Mining Leases 50170 and 50216;</li> <li>develop appropriate conservation/rehabilitation objectives;</li> <li>outline suitable conservation/rehabilitation techniques (including those areas where local native plant species/communities are to be re-established and/or enhanced);</li> <li>develop an action plan/rehabilitation schedule for the planned conservation/rehabilitation activities;</li> <li>propose specific conservation/rehabilitation acceptance criteria (including those areas where local native plant species/communities are re-established and/or enhanced);</li> <li>detail a suitable monitoring program to quantify conservation/rehabilitation success (including those areas where local native plant species/communities are re-established and/or enhanced); and</li> <li>propose appropriate remedial actions for conservation/rehabilitation areas not achieving the required conservation/rehabilitation objectives.</li> </ol> |
| I3                            | <p><b>Biodiversity offsets</b></p> <p>Significant residual impacts to prescribed matters of state environmental significance must not exceed the maximum authorised residual impact area listed for that matter in <b>Table I1 - Maximum authorised impacts on matters of state environmental significance</b> and shown in <b>Figure 4 —Impact on vegetation and habitat</b>.</p> <p><b>Note:</b> Deemed conditions in Sections 18, 22, 24 and 25 of the <i>Environmental Offsets Act 2014</i> are taken to be conditions of this authority.</p>  |
| I4                            | The holder of the environmental authority must provide an environmental offset for the following maximum significant residual impacts on matters of state environmental significance in accordance with the requirements of the <i>Environmental Offsets Act 2014</i> (including deemed conditions), the <i>Environmental Offsets Regulation 2014</i> and the <i>Queensland Environmental Offsets Policy</i> .   |

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Table I1 — Maximum authorised impacts on matters of state environmental significance (MSES)

| <u>Applicable MSES</u>   | <u>Status</u>     | <u>Maximum area of residual impact (ha)</u>                            | <u>Environmental offset required</u> |
|--|-------------------|--|--------------------------------------|
| <b><u>Threatened REs listed under the Vegetation Management Act 1999</u></b>         |                   |  |                                      |
| 11.3.1#  | Endangered        | <u>2.58</u>  | Yes                                  |
| 11.9.5#  | Endangered        | <u>24.53</u>   | <u>Yes</u>                           |
| 11.3.2   | Of concern        | <u>4.63</u>  | Yes                                  |
| 11.3.17  | Of concern        | <u>5.11</u>  | Yes                                  |
| 11.8.11#   | Of concern        | <u>34.65</u>   | Yes                                  |
| 11.9.10  | Of concern        | <u>14.36</u>   | Yes                                  |
| <u>11.9.7</u>  | <u>Of concern</u> | <u>3.24</u>  | <u>Yes</u>                           |
| 11.9.13  | Of concern        | <u>3.62</u>  | Yes                                  |
| <u>Watercourse vegetation</u><br>(11.8.11)   | <u>Of concern</u> | <u>6.38</u>  | <u>Yes</u>                           |
| <b><u>Threatened Fauna Species listed under the Nature Conservation Act 1992</u></b> |                   |  |                                      |
| Koala<br><i>Phascolarctos cinereus</i>   | <u>Vulnerable</u> | <u>30.96 of remnant vegetation and an additional 18.40 of NJKHTs*^</u> | Yes                                  |
| <b><u>Threatened Flora Species listed under the Nature Conservation Act 1992</u></b> |                   |  |                                      |
| Belson's Panic#<br><i>Homopholis belsoni</i>   | Endangered        | 70.8   | Yes                                  |
| <u>Austral Cornflower#</u><br>( <u>Rhaponticum austral</u> )                         | <u>Vulnerable</u> | <u>0.7</u>   | <u>Yes</u>                           |

# These prescribed environmental values duplicate MNES values and, in the event of an Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) decision on the project, offsets for these matters may be conditioned for by the Commonwealth. Further, any offsets conditioned by the Commonwealth are likely to address offsetting for these matters as required by this environmental authority.

\* NJKHTs = Non-Juvenile Koala Habitat Trees.

^ Based on the average tree density of 250 trees per hectare for koala habitat in SEQ used in the Queensland Environmental Offsets Policy (v1.8).

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| I5  | Residual impacts are not authorised on any Matters of State Environmental Significance not identified in <b>Table I1 — Maximum authorised impacts on matters of state environmental significance</b>   |
| I6  | <b>Environmental Offset Strategy (EOS)</b><br>The environmental authority holder must provide the approved environmental offset strategy required by Imposed Condition 13 of the CG's report, to the administering authority within 20 business days of its being approved.  |
| I7  | <b>Pre-clearance fauna and flora surveys</b><br>Prior to commencement of any project construction activities, the environmental authority holder must conduct pre-clearance ecological surveys of areas to be impacted, consistent with:<br>a) Queensland state government survey guidelines;<br>b) Requirements of the <i>Nature Conservation Act 1992</i> ; and<br>c) Australian government threatened species guidelines. |
| I8  | The surveys must be sufficient to identify the extent to which the following will be unavoidably impacted by the project:<br>a) Protected wildlife listed under the <i>Nature Conservation Act 1992</i> ;<br>b) Matters of state environmental significance (MSES) as defined by the State Planning Policy; and<br>c) MNES as listed under the EPBC Act  |
| I9  | The surveys must include areas of potential foraging, roosting or nesting habitat for the painted honeyeater ( <i>Grantiella picta</i> ). If the painted honeyeater is found during pre-clearance surveys, then any significant impacts on its habitat may require additional offsets in accordance with the EOS for the project.  |
| I10 | If protected plants are found during pre-clearance surveys, then impacts may require a permit under the <i>Nature Conservation Act 1992</i> and offsets under the <i>Environmental Offsets Act 2014</i> .  |
| I11 | Should additional MSES species and communities be located that were not previously identified during field surveys, the development of management plans and/or additional offsets may be required to address any significant residual impacts for matters of state environmental significance in accordance with the EOS for the project.  |
| I12 | Notification of the discovery of additional protected plants or MSES species and communities will be impacted is to be provided to the administering authority within five business days of the discovery. The proponent is required to propose how the species is to be managed and to seek advice from the administering authority on the undertaking.   |
| I13 | Survey results must be included in an updated EOS for the project.   |
| I14 | Surveys must include area of potential habitat for the vulnerable pale imperial hairstreak butterfly — <i>Jalmenus eubulus</i> . If the pale imperial hairstreak is found during pre-clearance surveys, then any significant impacts on its habitat may require additional offsets in accordance with the EOS for the project.   |

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| I15 | <p><b>Lagoon Creek Conservation Zone Management Plan (CZMP)</b></p> <p>The holder of the environmental authority holder must provide the approved Lagoon Creek Conservation Zone Management Plan, which is in accordance with <b>Imposed Condition 15</b> of the CG's report, to the administering authority, within 20 business days of it being approved.</p> |
| I16 | <p><b>Koala Species Management Plan (KSMP)</b></p> <p>The holder of the environmental authority holder must provide the approved Koala species management plan, which is in accordance with <b>Imposed Condition 16</b> of the CG's report, to the administering authority, within 20 business days of it being approved.</p>                                   |

| Agency interest: Regulated Structures |  |
|---------------------------------------|--|
| Condition number                      | Condition  |
| J1                                    | <p><b>Regulated Dams and Levees</b></p> <p>The consequence category of any structure must be assessed by a suitably e-qualified and experienced person in accordance with the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933) at the following times:</p> <ul style="list-style-type: none"> <li>a) Prior to the design and construction of the structure, if it is not an existing structure; or</li> <li>b) <del>If it is an existing structure, prior to the adoption of this schedule; or</del></li> <li>c) Prior to any change in its purpose or the nature of its stored contents.</li> </ul> |
| J2                                    | A consequence assessment report and certification must be prepared for each structure assessed and the report may include a consequence for more than one structure.   |
| J3                                    | Certification must be provided by the suitably qualified and experienced person who undertook the assessment, in the form set out in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933).   |
| J4                                    | <p><b>Design and construction of a regulated structure</b></p> <p><b>Conditions J5 to J9</b> inclusive do not apply to existing structures which were operational prior to this environmental authority taking effect.</p>   |
| J5                                    | All regulated structures must be designed by and constructed under the supervision of a suitable qualified and experienced person in accordance with the requirements of the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933).   |
| J6                                    | <p>Construction of a regulated structure is prohibited unless:</p> <ul style="list-style-type: none"> <li>a) the holder has submitted a consequence category assessment report and certification to the administering authority <del>that has been certified by a suitably qualified person for the design and the design plan and the associated operating procedures in compliance with the relevant condition of this authority;</del> and</li> </ul>   |

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|           | b) certification for the design, design plan and the associated operating procedures have been certified by a suitably qualified and experienced person in compliance with the relevant condition of this authority.   |
| <b>J7</b> | Certification must be provided by the suitable qualified and experienced person who oversees the preparation of the design plan set out in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933), and must be recorded in the Regulated Dams/Levees register—Register of Regulated Structures.  |
| <b>J8</b> | Regulated structures must: <ul style="list-style-type: none"> <li>a) be designed and constructed in accordance with and conform to the requirements of compliance with the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i>(ESR/2016/1933);</li> <li>b) be designed and constructed with due consideration given to ensuring that the design integrity would not be compromised on account of: <ul style="list-style-type: none"> <li>i. floodwaters from entering the a regulated dam structure from any watercourse or drainage line; and</li> <li>ii. wall failure due to erosion by floodwaters arising from any watercourse or drainage line;</li> </ul> </li> <li>c) (only for regulated dams associated with a failure to contain seepage) have the floor and sides of the dam structure designed and constructed to prevent or minimise the passage of the wetting front and any entrained contaminants through either the floor or sides of the dam structure during the operational life of the dam structure and for any period of decommissioning and rehabilitation of the dam structure .</li> </ul> |
| <b>J9</b> | Certification by the suitable qualified and experienced person who supervises the construction must be submitted to the administering authority on the completion of construction of the regulated structure and state that: <ul style="list-style-type: none"> <li>a) The 'as constructed' drawings and specifications meet the original intent of the design plan for that regulated structure; and</li> <li>b) Construction of the regulated structure is in accordance with the design plan.</li> </ul>  |

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| <b>J10</b> | <p><b>Operation of a regulated structure</b></p> <p>Operation of a regulated structure, except for an existing structure, is prohibited unless the holder has submitted to the administering authority in respect of regulated structures, all of the following:</p> <ul style="list-style-type: none"> <li>a) One paper copy and one electronic copy of the design plan and certification of the 'design plan' in accordance with <b>Condition J6</b>; and</li> <li>b) A set of 'as constructed' drawings and specifications; and</li> <li>c) Certification of those 'as constructed drawings and specifications' in accordance with <b>Condition J69</b>; and</li> <li>d) Where the regulated structure is to be managed as part of an integrated containment system for the purpose of sharing the DSA volume across the system, a copy of the certified system design plan; and</li> <li>e) The requirements of this authority relating to the construction of the regulated structure have been met; and</li> <li>f) The holder has entered the details required under this authority into a Register of Regulated Dams Structures; and</li> <li>g) There is a current operational plan for the regulated structures.</li> </ul> |
| <b>J11</b> | <p>For existing structures that are regulated structures:</p> <ul style="list-style-type: none"> <li>a) Where the existing structure that is a regulated structure is to be managed as part of an integrated containment system for the purposes of sharing DSA volume across the system, the holder must submit to the administering authority within <b>12 months</b> of construction of the structure <b>of the commencement</b> this condition, a copy of the certified system design plan including that system structure; and</li> <li>b) There must be a current operational plan for the existing structures.</li> </ul>  |
| <b>J12</b> | <p>Each regulated structure must be maintained and operated for the duration of its operational life until decommissioned and rehabilitated in a manner that is consistent with the current operational plan and if applicable the current design plan and associated certified 'as constructed' drawings.</p>  |
| <b>J13</b> | <p><b>Mandatory reporting level</b></p> <p><b>Conditions J14 to J17</b> inclusive apply to Regulated Dams Structures which have not been certified as low consequence category for 'failure to contain — overtopping'.</p>  |
| <b>J14</b> | <p>The Mandatory Reporting Level (the MRL) must be marked on a regulated dam in such a way that during routine inspections of the dam it is clearly observable.</p>   |
| <b>J15</b> | <p>The holder must, as soon as practical and <b>within forty-eight (48) hours</b> of becoming aware, notify the administering authority when the level of the contents of a regulated dam reaches the MRL.</p>  |
| <b>J16</b> | <p>The holder must, immediately on becoming aware that the MRL has been reached, act to prevent the occurrence on any unauthorised discharges from the regulated dam.</p>   |
| <b>J17</b> | <p>The holder must record any changes to the MRL in the Register of Regulated Structures.</p>   |

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| J18 | <p><b>Design storage allowance</b></p> <p>The holder must assess the performance of each regulated dam or linked containment system over the preceding November to May period based on actual observations of the available storage in each regulated dam or linked containment system taken <b>prior to 1 July of each year</b>.</p>   |
| J19 | <p><b>By 1 November of each year</b>, storage capacity must be available in each regulated dam (or network of linked containment systems with a shared DSA volume) to meet the Design Storage Allowance (DSA) volume of the dam (or network of linked containment systems).</p>   |
| J20 | <p>The holder must, as soon as possible and <b>within forty-eight (48) hours</b> of becoming aware that the regulated dam (or network of linked containment system) will not have the available storage to meet the DSA volume on 1 November of any year, notify the administering authority.</p>   |
| J21 | <p>The holder must, immediately on becoming aware that a regulated dam (or network of linked containment systems) will not have the available storage to meet the DSA volume on 1 November of any year, act to prevent the occurrence of any unauthorised discharge from the regulated dam or linked containment systems.</p>   |
| J22 | <p><b>Annual inspection report</b></p> <p>Each regulated structure <del>dam</del> must be inspected each calendar year by a suitably e qualified and experienced person.</p>  |
| J23 | <p>At each inspection the condition and adequacy of all components of the regulated structure must be assessed and a suitably qualified and experienced person must prepare an annual inspection report containing details of the assessment and include a recommendations section, with any recommended actions to ensure the integrity of the regulated structure or a positive statement that no recommendations are required.</p>   |
| J24 | <p>The suitably e qualified and experienced person who prepared the annual inspection report must certify the report in accordance with the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933).</p>   |
| J25 | <p>The holder must:</p> <p>a) <del>W</del>-within 20 business days of receipt of the annual inspection report provide to the administering authority:</p> <ol style="list-style-type: none"> <li>1. the recommendations section of the annual inspection report; and</li> <li>2. if applicable, any actions being taken in response to those recommendations; and</li> </ol> <p>b)3. <del>I</del> if, following receipt of the recommendations and (if applicable) recommended actions, the administering authority requests a full copy of the annual inspection report from the holder, provide this <del>information</del> to the administering authority within 10 business days of receipt of the request.</p> |
| J26 | <p><b>Transfer arrangements</b></p> <p>The holder must provide a copy of any reports, documentation and certifications prepared under this <del>schedule of this</del> authority, including but not limited to the Register of Regulated Structures, consequence assessment, design plan and other supporting documentation, to a new holder on transfer of this authority.</p>   |

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|-------------------|---|
| <p><b>J27</b></p> | <p><b>Decommissioning and rehabilitation</b></p> <p>Dams Regulated structures must not be abandoned but be either:</p> <p>a) Decommissioned and rehabilitated to achieve compliance with <b>Condition J28</b>; or</p> <p>b) Be left in-situ for a beneficial use(s) provided that:</p> <ol style="list-style-type: none"> <li>1. it no longer contains contaminants that will migrate into the environment; and</li> <li>2. it contains water of a quality that is demonstrated to be suitable for the intended beneficial use(s); and</li> <li>3. the administering authority, the holder of the environmental authority and the landholder agree in writing that             <ol style="list-style-type: none"> <li>i. the dam will be used by the landholder following cessation of <del>the resource activity</del> environmentally relevant activity(ies); and</li> <li>ii. the landholder is responsible for the dam, on and from an agreed date</li> </ol> </li> </ol>   |
| <p><b>J28</b></p> | <p><del>After decommissioning, all significantly disturbed land caused by carrying out of the resource activity</del> Unless specified by another condition of this environmental authority, before surrendering this environmental authority all regulated structures must be rehabilitated to achieve a safe, stable, non-polluting landform and must be rehabilitated to meet the final acceptance criteria:</p> <p>a) <del>The landform is safe for humans and fauna;</del></p> <p>b) <del>The landform is stable with no subsidence of erosion gullies for at least three (3) years;</del></p> <p>c) <del>Any contaminated land (e.g. contaminated soils) is remediated and rehabilitated;</del></p> <p>d) <del>Not allowing for acid mine drainage;</del></p> <p>e) <del>There is no ongoing contamination to waters (including groundwater);</del></p> <p>f) <del>All significantly disturbed land is reinstated as defined in <b>Table H1 — Rehabilitation requirements</b>;</del></p> <p>g a) For land that is not being cultivated by the landholder:</p> <ol style="list-style-type: none"> <li>1. i. groundcover, that is not a declared pest species is established and self-sustaining</li> <li>2. ii. vegetation of similar species richness and species diversity to pre-selected analogue sites is established and self-sustaining, and</li> <li>3. iii. the maintenance requirements for rehabilitated land is no greater than that required for the land prior to its disturbance caused by carrying out the <del>petroleum</del> mining activities <del>y(ies)</del>.</li> </ol> <p>h) b) For land that is to be cultivated by the landowner, cover crop is revegetated, unless the landholder will be preparing the site for cropping <b>within 3 months</b> of <del>resource</del> mining activities being completed.</p> |
| <p><b>J29</b></p> | <p><b>Register of Regulated Dams Structures</b></p> <p>A Register of Regulated <del>Dams</del> Structures must be established and maintained by the holder for each regulated <del>dam</del> structure.</p>   |

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| <b>J30</b> | The holder must provisionally enter the required information in the Register of Regulated Dams-Structures when a design plan for a regulated dam structure is submitted to the administering authority.   |
| <b>J31</b> | The holder must make a final entry of the required information in the Register of Regulated Dams-Structures once compliance with <b>Conditions J8</b> and <b>J9</b> has been achieved.  |
| <b>J32</b> | The holder must ensure that the information contained in the Register of Regulated Dams-Structures is current and complete on any given day.  |
| <b>J33</b> | All entries in the Register of Regulated Dams-Structures must be approved by the chief executive officer for the holder of this authority, or their delegate, as being accurate and correct.  |
| <b>J34</b> | The holder must, at the same time as providing the annual return, supply to the administering authority a copy of the records contained in the Register of Regulated Dams-Structures, in the electronic format required by the administering authority. |

| <b>Agency interest: Light</b> |  |
|-------------------------------|--|
| <b>Condition number</b>       | <b>Condition</b>   |
| <b>K1</b>                     | Subject to <b>Condition K2</b> , the emission of light resulting from the mining activity must not cause an environmental nuisance at any sensitive place.   |
| <b>K2</b>                     | When requested by the administering authority, an assessment of the light nuisance* must be undertaken within a reasonable and practicable timeframe nominated by the administering authority to investigate any complaint (which is neither frivolous nor vexatious based on mistaken belief in the opinion of the authorised officer) of environmental nuisance at any sensitive place, and the results must be notified within 14 days of the administering authority following completion of the assessment.<br><br>(* Assessment to be conducted according to and with reference to the limits specified in AS/NZS 4282:2019 Control of the Obtrusive Effects of Outdoor lighting). |
| <b>K3</b>                     | If the assessment indicates <b>Condition K2</b> is not being met then the environmental authority holder must: <ul style="list-style-type: none"> <li>a) address the complaint including the use of appropriate dispute resolution if required; or</li> <li>b) immediately implement light abatement measures so the emissions of light from the activity do not result in further environmental nuisance.</li> </ul>  |

| <b>Agency interest: Community</b> |                  |
|-----------------------------------|------------------|
| <b>Condition number</b>           | <b>Condition</b> |

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|-------------------------|--|
| <p><b><u>L1</u></b></p> | <p><b>Complaints</b></p> <p>The holder of this environmental authority must record all environmental complaints received about the mining activities including:</p> <ul style="list-style-type: none"> <li>a) name, address and contact number for of the complainant;</li> <li>b) time and date of complaint;</li> <li>c) reasons for the complaint;</li> <li>d) investigations undertaken;</li> <li>e) conclusions formed;</li> <li>f) actions taken to resolve the complaint;</li> <li>g) any abatement measures implemented; <del>and</del></li> <li>h) person responsible for resolving the complaint; and</li> <li>i) records of any referrals to an independent counselling service.</li> </ul> <p>The information as outlined in <b>Condition L1 (a) to (i)</b> with the consent of the complainant must be sent to the administering authority (and the complainant) within 28 days of <del>the complaint being received and updated every further 28 days until the</del> action <u>has been</u> taken to resolve the complaint.</p> |
| <p><b><u>L2</u></b></p> | <p>The holder of this environmental authority must, when requested by the administering authority, undertake relevant specified monitoring within a reasonable timeframe nominated or agreed to by the administering authority to investigate any complaint of environmental harm. The results of the investigation (including an analysis and interpretation of the monitoring results) and abatement measures, where implemented, must be provided to the administering authority <b>within 10 business days</b> of completion of the investigation, or no later than 10 business days after the end of the timeframe nominated by the administering authority to undertake the investigation.</p>   |
| <p><b><u>L3</u></b></p> | <p><b>Notification of emergencies, incidents and exceptions</b></p> <p>The holder of this environmental authority must notify the administering authority by written notification <b>within 24 hours</b> after becoming aware of any emergency or incident which results in the release of contaminants not in accordance, or reasonably expected to be not in accordance with, the conditions of this environmental authority.</p>  |
| <p><b><u>L4</u></b></p> | <p><b>Within 10 business days</b> following the initial notification of an emergency or incident, or receipt of monitoring results, whichever is the later, further written advice must be provided to the administering authority, including the following:</p> <ul style="list-style-type: none"> <li>a) results and interpretation of any samples taken and analysed;</li> <li>b) outcomes of actions taken at the time to prevent or minimise unlawful environmental harm; and</li> <li>c) proposed actions to prevent a recurrence of the emergency or incident.</li> </ul>   |
| <p><b><u>L5</u></b></p> | <p>At the completion of mining, the environmental authority holder must apply to the relevant authority to restore or provide alternative road access to Acland Township, in particular to the war memorial.</p>   |
| <p><b><u>L6</u></b></p> | <p><del>Basalt from stockpiles must only be transported within the approved mining area as indicated in <b>Figure 1 (Revised Project Overview – Mine Area)</b>, wherever possible.</del></p>   |

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| <b>L7</b> | The environmental authority holder must provide an independent counselling service accessible to all local landowners located within 5km of the mining lease boundary to deal with concerns, stress and emotional distress associated with mining activities. |
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**Definitions**

|                                |  |
|--------------------------------|--|
| <b>acid rock drainage</b>      | any contaminated discharge emanating from a mining activity formed through a series of chemical and biological reactions, when geological strata is disturbed and exposed to oxygen and moisture.  |
| <b>acceptance criteria</b>     | <p>means the measures by which actions implemented are deemed to be complete. The acceptance criteria indicate the success of the decommissioning and rehabilitation outcomes or remediation of areas which have been significantly been disturbed by the mining activities. Acceptance criteria may include information regarding:</p> <ul style="list-style-type: none"> <li>- stability of final land forms in terms of settlement, erosion, weathering, pondage and drainage;</li> <li>- control of geochemical and contaminant transport processes;</li> <li>- quality of runoff waters and potential impact on receiving environment;</li> <li>- vegetation establishment, survival and succession;</li> <li>- vegetation productivity, sustained growth and structure development;</li> <li>- fauna colonisation and habitat development;</li> <li>- ecosystem processes such as soil development and nutrient cycling, and the recolonisation of specific fauna groups such as collembola, mites and termites which are involved in these processes;</li> <li>- microbiological studies including recolonisation by mycorrhizal fungi, microbial biomass and respiration;</li> <li>- effects of various establishment treatments such as deep ripping, topsoil handling, seeding and fertiliser application on vegetation growth and development;</li> <li>- resilience of vegetation to disease, insect attack, drought and fire;</li> <li>- vegetation water use and effects on ground water levels and catchment yields.</li> </ul> |
| <b>administering authority</b> | means the Environmental Protection Agency or its successor.  |
| <b>affected person</b>         | someone whose drinking water can potentially be impacted as a result of discharges from a dam or their life can be put at risk due to dwellings or workplaces being in the path of a dam break flood.  |
| <b>airblast overpressure</b>   | energy transmitted from the blast site within the atmosphere in the form of pressure waves. The maximum excess pressure in this wave, above ambient pressure is the peak airblast overpressure measured in decibels linear (dBL).  |
| <b>air emission</b>            | means a substance released into the air.   |
| <b>air environment</b>         | means the part of the environment of an area or place characterised by the air emissions that may be experienced there.  |

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| <b>ambient (or total) noise</b>   | at a place, means the level of noise at the place from all sources (near and far), measured as the Leq for an appropriate time interval  |
| <b>appropriately qualified person</b>   | a person who has professional qualifications, training, skills or experience relevant to the nominated subject matter and can give authoritative assessment, advice and analysis on performance relating to the subject matter using the relevant protocols, standards, methods or literature.   |
| <b>annual inspection report</b>   | <p>an assessment prepared by a suitably qualified and experienced person containing details of the assessment against the most recent consequence assessment report and design plan (or system design plan):</p> <ul style="list-style-type: none"> <li>• against recommendations contained in previous annual inspections reports;</li> <li>• against recognised dam safety deficiency indicators;</li> <li>• for changes in circumstances potentially leading to a change in consequence category;</li> <li>• for conformance with the conditions of this authority;</li> <li>• for conformance with the 'as constructed' drawings;</li> <li>• for the adequacy of the available storage in each regulated dam, based on an actual observation or observations taken after 31 May each year but prior to 1 November of that year, of accumulated sediment, state of the containment barrier and the level of liquids in the dam (or network of linked containment systems);</li> <li>• for evidence of conformance with the current operational plan.</li> </ul> |
| <b>Annual Exceedance Probability or AEP</b>   | the probability that at least one event in excess of a particular magnitude will occur in any given year   |
| <b>appropriately qualified person</b>   | means a person or body possessing appropriate experience and qualifications to perform these tasks.  |
| <b><u>Areas of Interest</u></b>   | <u>The area of noise monitoring coverage captured by the noise compass in five degree increments when adjusted to reflect current mining activity</u>  |
| <b>assessed or assessment by a suitably qualified and experienced person in relation to a consequence assessment of a structure</b> | <p>a statutory declaration has been made by that person and, when taken together with any attached or appended documents referenced in that declaration, all of the following aspects are addressed and are sufficient to allow an independent audit of the assessment:</p> <ul style="list-style-type: none"> <li>• exactly what has been assessed and the precise nature of that determination;</li> <li>• the relevant legislative, regulatory and technical criteria on which the assessment has been based;</li> <li>• the relevant data and facts on which the assessment has been based, the source of that material, and the efforts made to obtain all relevant data and facts; and</li> </ul>  |

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|  | <ul style="list-style-type: none"> <li>the reasoning on which the assessment has been based using the relevant data and facts, and the relevant criteria.</li> </ul>   |
| <b>associated works in relation to a structure</b>       | operations of any kind and all things constructed, erected or installed for that structure; and<br>any land used for those operations.   |
| <b>authority</b>   | an environmental authority or a development approval.  |
| <b>background</b> , with reference to the water schedule | the average of samples taken prior to the commencement of mining from the same waterway that the current sample has been taken.  |
| <b>background noise level</b>                            | means noise, measured in the absence of the noise under investigation, as either: <ul style="list-style-type: none"> <li>L A90,T being the A-weighted sound pressure level exceeded for 90 percent of the time period of not less than 15 minutes, using Fast response, or</li> <li>L LA<sub>bg</sub>,T being the arithmetic average of the minimum readings during a representative time period of not less than 15 minutes, using Fast response.</li> </ul>  |
| <b>blasting</b>  | the use of explosive materials to fracture: <ul style="list-style-type: none"> <li>rock, coal and other minerals for later recovery; or</li> <li>structural components or other items to facilitate removal from a site or for reuse.</li> </ul>   |
| <b>Certification</b>                                     | assessment and approval must be undertaken by a suitably qualified and experienced person in relation to any assessment or documentation required by the <i>Manual (Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933))</i> , including design plans, 'as constructed' drawings and specifications, construction, operation or an annual report regarding regulated structures, undertaken in accordance with the Board of Professional Engineers of Queensland Policy Certification by RPEQs (ID: 1.4 (3A)).   |
| <b>Certifying, certify or certified</b>                  | a corresponding meaning as certification   |
| <b>chemical</b>  | <ul style="list-style-type: none"> <li>an agricultural chemical product or veterinary chemical product within the meaning of the <i>Agricultural and Veterinary Chemicals Code Act 1994</i> (Commonwealth); or</li> <li>a dangerous good under the Australian Code for the Transport of Dangerous Goods by Road and Rail approved by the Australian Transport Council; or</li> <li>a lead hazardous substance within the meaning of the Workplace Health and Safety Regulation 1997;</li> <li>a drug or poison in the Standard for the Uniform Scheduling of Medicines and Poisons prepared by the Australian Health Ministers Advisory Council and published by the Commonwealth; or</li> <li>any substance used as, or intended for use as:</li> </ul> |

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|  | <ul style="list-style-type: none"> <li>– a pesticide, insecticide, fungicide, herbicide, rodenticide, nematocide, miticide, fumigant or related product; or</li> <li>– a surface active agent, including, for example, soap or related detergent; or</li> <li>– a paint solvent, pigment, dye, printing ink, industrial polish, adhesive, sealant, food additive, bleach, sanitiser, disinfectant, or biocide; or</li> <li>– a fertiliser for agricultural, horticultural or garden use; or</li> <li>– a substance used for, or intended for use for mineral processing or treatment of metal, pulp and paper, textile, timber, water or wastewater; or</li> <li>– manufacture of plastic or synthetic rubber.</li> </ul> |
| <b>Compliance Bore</b>                                   | Refers to a groundwater monitoring bore which is the subject of compliance requirements for both groundwater quality and level.   |
| <b>commercial place</b>                                  | a workplace used as an office or for business or commercial purposes, <u>including agricultural purposes</u> , which is not part of the mining activity and does not include employee accommodation or public roads.  |
| <b>Consequence</b> in relation to a structure as defined | the potential for environmental harm resulting from the collapse or failure of the structure to perform its primary purpose of containing, diverting or controlling flowable substances.  |
| <b>Consequence category</b>                              | a category, either low, significant or high, into which a dam-structure is assessed as a result of the application of tables and other criteria in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933).  |
| <b>construction or constructed</b> in relation to a dam  | includes building a new dam-structure and modifying or lifting an existing dam-structure, but does not include investigations and testing necessary for the purpose of preparing a design plan.   |
| <b>dam</b>   | a land-based structure or a void that contains, diverts or controls flowable substances, and includes any substances that are thereby contained, diverted or controlled by that land-based structure or void and associated works.  |
| <b>dam crest volume</b>                                  | the volume of material (liquids and/or solids) that could be within the walls of a dam at any time when the upper level of that material is at the crest level of that dam. That is, the instantaneous maximum volume within the walls, without regard to flows entering or leaving (for example, via spillway).  |
| <b>dB (Linear) Peak</b>                                  | is the maximum reading in decibels (dB) obtained using the "P" time — weighting characteristic as specified in AS 1259.1 — 1990 with all frequency — weighted networks inoperative  |
| <b>declared plant</b>                                    | means a plant that has been declared under the <i>Rural Lands Protection Act 1985</i>   |

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| <b>design plan</b>  | a document setting out how all identified consequence scenarios are addressed in the planned design and operation of a regulated structure.   |
| <b>design storage allowance or DSA</b>                    | an available volume, estimated in accordance with the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933) published by the administering authority, must be provided in a dam as at 1 November each year in order to prevent a discharge from that dam to an <b>annual exceedance probability</b> (AEP) specified in that Manual.  |
| <b>designer</b> for the purposes of a regulated structure | the certifier of the design plan for the regulated dam-structure.   |
| <b>development approval</b>                               | a development approval under the <i>Integrated Planning Act 1997</i> or the <i>Sustainable Planning Act 2009</i> in relation to a matter that involves an environmentally relevant activity under the <i>Environmental Protection Act 1994</i> .  |
| <b>disturbance of land</b>                                | <p>includes:</p> <ul style="list-style-type: none"> <li>• compacting, removing, covering, exposing or stockpiling of earth;</li> <li>• removal or destruction of vegetation or topsoil or both to an extent where the land has been made susceptible to erosion;</li> <li>• carrying out mining within a watercourse, waterway, wetland or lake;</li> <li>• the submersion of areas by tailings or hazardous contaminant storage and dam/structure walls;</li> <li>• temporary infrastructure, including any infrastructure (roads, tracks, bridges, culverts, dam/structures, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc.) which is to be removed after the mining activity has ceased; or</li> <li>• releasing of contaminants into the soil, or underlying geological strata.</li> </ul> <p>However, the following areas are not included when calculating areas of disturbance:</p> <ul style="list-style-type: none"> <li>• areas off lease (e.g. roads or tracks which provide access to the mining lease);</li> <li>• areas previously disturbed which have achieved the rehabilitation outcomes;</li> <li>• by agreement with the administering authority, areas previously disturbed which have not achieved the rehabilitation objective(s) due to circumstances beyond the control of the mine operator (such as climatic conditions);</li> <li>• areas under permanent infrastructure. Permanent infrastructure includes any infrastructure (roads, tracks, bridges, culverts, dam/structures, bores, buildings, fixed machinery, hardstand areas, airstrips, helipads etc) which is to be left by agreement with the landowner;</li> <li>• disturbance that pre-existed the grant of the tenure.</li> </ul> |

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| <b>EC</b>                             | electrical conductivity.   |
| <b>effluent</b>                       | treated waste water released from sewage treatment plants.   |
| <b>emergency action plan</b>          | documentation forming part of the operational plan held by the holder or a nominated responsible officer, that identifies emergency conditions that sets out procedures and actions that will be followed and taken by the dam-structure owner and operating personnel in the event of an emergency. The actions are to minimise the risk and consequences of failure, and ensure timely warning to downstream communities and the implementation of protection measures. The plan must require dam structure owners to annually update contact. |
| <b>environmental authority holder</b> | means the holder of this environmental authority   |
| <b>environmental nuisance</b>         | is unreasonable interference or likely interference with an environmental value caused by:<br>a) noise, dust, odour, light; or<br>b) an unhealthy, offensive or unsightly condition because of contamination; or<br>c) another way prescribed by regulation.   |
| <b>existing structure</b>             | a structure that was in existence prior to the adoption of this schedule of conditions under the authority.  |
| <b>Extreme Storm Storage</b>          | a storm storage allowance determined in accordance with the criteria in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933) published by the administering authority  |
| <b>first flush diverter system</b>    | First flush diverter systems are to prevent bird droppings and dust entering rainwater tank and first rains.   |
| <b>flowable substance</b>             | matter or a mixture of materials which can flow under any conditions potentially affecting that substance. Constituents of a flowable substance can include water, other liquids fluids or solids, or a mixture that includes water and any other liquids fluids or solids either in solution or suspension.   |
| <b>foreseeable future</b>             | is the period used for assessing the total risk of an event occurring. Permanent structures and ecological sustainability should be expected to still exist at the end of a 150 year foreseeable future with an acceptable risk of failure before that time.   |
| <b>hazard category</b>                | a category, either low significant or high, into which a dam is assessed as a result of the application of tables and other criteria in <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933).  |
| <b>holder</b>                         | <ul style="list-style-type: none"> <li>where this document is an environmental authority, any person who is the holder of, or is acting under, that environmental authority; or</li> </ul>   |

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|   | <ul style="list-style-type: none"> <li>where this document is a development approval, any person who is the registered operator for that development approval.</li> </ul>   |
| <b>hydraulic performance</b>                      | the capacity of a regulated dam-structure to contain or safely pass flowable substances based on the design criteria specified for the relevant consequence category in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)</i> .  |
| <b>Interpretation bore</b>                        | Refers to a groundwater monitoring bore that represents natural background quality and levels which is used for comparative and interpretative purposes against compliance bores. An interpretation bore should not be impacted by mining activities.   |
| <b>infrastructure</b>                             | water storage dams, levees, roads and tracks, buildings and other structures built for the purpose of the mining activity.  |
| <b>land</b> in the land schedule of this document | land excluding waters and the atmosphere, that is, the term has a different meaning from the term as defined in the <i>Environmental Protection Act 1994</i> . For the purposes of the <i>Acts Interpretation Act 1954</i> , it is expressly noted that the term land in this environmental authority relates to physical land and not to interests in land.  |
| <b>land capability</b>                            | as defined in the DME 1995 Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland  |
| <b>land suitability</b>                           | as defined in the DME 1995 Technical Guidelines for the Environmental Management of Exploration and Mining in Queensland.   |
| <b>land use</b>                                   | the selected post mining use of the land, which is planned to occur after the cessation of mining operations.   |
| <b>L<sub>Aeq,adj</sub> 15 min intervals</b>       | A-weighted equivalent continuous sound level over 15 minute intervals   |
| <b>L<sub>A</sub>r, 1 hour</b>                     | means the specific noise level measured as the A-weighted equivalent continuous noise level (L <sub>Aeq</sub> ) plus any adjustment for the character of the noise (tonal and/or impulsive) determined over a reference time period of one hour   |
| <b>L<sub>A10,adj</sub>, 15 min</b>                | A-weighted, sound level just exceeded for 10% of the 15 minute period   |
| <b>leachate</b>                                   | a liquid that has passed through or emerged from, or is likely to have passed through or emerged from, a material stored, processed or disposed of at the operational land which contains soluble, suspended or miscible contaminants likely to have been derived from the said material.   |
| <b>levee</b>                                      | an embankment that only provides for the containment and diversion of stormwater or flood flows from a contributing catchment, or containment and diversion of flowable materials resulting from releases from other works, during the progress of those stormwater or flood flows or those releases; and does not store any significant volume of <b>water</b> or <b>flowable substances</b> at any other times. |
| <b>licensed place</b>                             | the mining activities carried out at the mining tenements detailed in this environmental authority.   |

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| <b>low consequence dam</b>                | any dam that is not a high or significant consequence category as assessed using the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933)                                      |
| <b>m</b>                                  | metres   |
| <b>mandatory reporting level or MRL</b>   | a warning and reporting level determined in accordance with the criteria in the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933) published by the administering authority. |
| <b>manual</b>                             | the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933) published by the administering authority.   |
| <b>maximum</b>                            | means that the measured value of the quality characteristic or contaminant must not be greater than the release limit stated   |
| <b>Maximum Instantaneous Charge (MIC)</b> | is the maximum amount of explosive on any one specific delay detonator in any one blast hole.  |
| <b>LA max</b>                             | means the maximum A-weighted sound pressure level measured over a time period of not less than 15 minutes, using Fast response   |
| <b>measures</b>                           | includes any measures to prevent or minimise environmental impacts of the mining activity such as bunds, silt fences, diversion drains, capping, and containment systems.  |
| <b>median</b>                             | means the middle value, where half the data are smaller, and half the data are larger. If the number of samples is even, the median is the arithmetic average of the two middle values   |
| <b>mg/kg</b>                              | means milligrams per kilogram  |
| <b>mg/L</b>                               | means milligrams per litre   |

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| <b>mine-affected water</b>       | <p>the following types of water:</p> <ul style="list-style-type: none"> <li>i. pit water, tailings dam water, processing plant water;</li> <li>ii. water contaminated by a mining activity which would have been an environmentally relevant activity under Schedule 2 of the Environmental Protection Regulation 2019 if it had not formed part of the mining activity;</li> <li>iii. rainfall runoff which has been in contact with any areas disturbed by mining activities which have not yet been rehabilitated, excluding rainfall runoff discharging through release points associated with erosion and sediment control structures that have been installed in accordance with the standards and requirements of an Erosion and Sediment Control Plan to manage such runoff, provided that this water has not been mixed with pit water, tailings dam water, processing plant water or workshop water;</li> <li>iv. groundwater which has been in contact with any areas disturbed by mining activities which have not yet been rehabilitated;</li> <li>v. groundwater from the mines dewatering activities;</li> <li>vi. a mix of mine affected water (under any of paragraphs i-v, above) and other water.</li> </ul> <p>does not include surface water runoff which, to the extent that it has been in contact with areas disturbed by mining activities that have not yet been completely rehabilitated, has only been in contact with:</p> <ul style="list-style-type: none"> <li>• land that has been rehabilitated to a stable landform and either capped or revegetated in accordance with the acceptance criteria set out in the environmental authority but only still awaiting maintenance and monitoring of the rehabilitation over a specified period of time to demonstrate rehabilitation success; or</li> <li>• land that has partially been rehabilitated and monitoring demonstrates the relevant part of the landform with which the water has been in contact does not cause environmental harm to waters or groundwater, for example: <ul style="list-style-type: none"> <li>– areas that are been capped and have monitoring data demonstrating hazardous material adequately contained with the site;</li> <li>– evidence provided through monitoring that the relevant surface water would have met the water quality parameters for mine affected water release limits in this environmental authority, if those parameters had been applicable to the surface water runoff; or</li> <li>– both.</li> </ul> </li> </ul> |
| <b>minimum</b>                   | means that the measured value of the quality characteristic or contaminant must not be less than the release limit stated  |
| <b>modification or modifying</b> | see definition of construction   |
| <b><u>monitoring records</u></b> | <u>includes, but is not limited to, all performance monitoring and compliance monitoring data</u>  |

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| <b>NATA</b>                  | National Association of Testing Authorities, Australia.  |
| <b>natural flow</b>          | the flow of water through waters caused by nature.   |
| <b>ng/L</b>                  | means nanograms per litre  |
| <b>noise sensitive place</b> | <p>means:</p> <ul style="list-style-type: none"> <li>• a legal dwelling, caravan park, residential marina or other residential premises; or</li> <li>• a motel, hotel or hostel; or</li> <li>• a kindergarten, school, university or other educational institution; or</li> <li>• a medical centre or hospital; or</li> <li>• a protected area; or</li> <li>• a public park or gardens; and</li> <li>• includes the curtilage of any such place.</li> </ul> <p>but does not include</p> <ul style="list-style-type: none"> <li>(a) places that are within the boundaries of the mining lease; or</li> <li>(b) places that are owned or leased by the holder of the environmental authority or its related companies; or</li> <li>(c) places for which an agreement has been entered into between the holder of the environmental authority and the owner of the place for the provision of alternative measures to mitigate the impact of mining activities for the Stage 3 New Acland Mine Project at the place, where those measures are reasonably expected to result in noise levels experienced at the place that are consistent with the relevant limits in Table F 1 - Noise Limits.</li> </ul> |
| <b>non polluting</b>         | having no adverse impacts upon the receiving environment.  |
| <b>noxious</b>               | means harmful or injurious to health or physical well being, other than trivial harm   |
| <b>offensive</b>             | means causing unreasonable offence or displeasure; is unreasonably disagreeable to the sense; disgusting, nauseous or repulsive, other than trivial harm.  |
| <b>operational plan</b>      | <p>includes:</p> <ul style="list-style-type: none"> <li>• normal operating procedures and rules (including clear documentation and definition of process inputs in the DSA allowance);</li> <li>• contingency and emergency action plans including operating procedures designed to avoid and/or minimise environmental impacts including threats to human life resulting from any overtopping or loss of structural integrity of the regulated structure.</li> </ul>  |

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| <b>peak particle velocity (ppv)</b>   | a measure of ground vibration magnitude which is the maximum rate of change of ground displacement with time, usually measured in millimetres/second (mm/s).   |
| <b>protected area</b>   | means: <ul style="list-style-type: none"> <li>• a protected area under the <i>Nature Conservation Act 1992</i>; or</li> <li>• a marine park under the <i>Marine Parks Act 2004</i>; or</li> <li>• a World Heritage Area.</li> </ul>  |
| <b>progressive rehabilitation</b>   | means rehabilitation (defined below) undertaken progressively OR a staged approach to rehabilitation as mining operations are ongoing  |
| <b>range</b>  | means that the measured value of the quality characteristic or contaminant must not be greater than the higher release limit stated nor lower than the lower release limit stated  |
| <b>receiving environment</b> in relation to an activity that causes or may cause environmental harm | the part of the environment to which the harm is, or may be, caused. The receiving environment includes (but is not limited to): <ul style="list-style-type: none"> <li>• a watercourse;</li> <li>• groundwater; and</li> <li>• an area of land.</li> </ul>  |
| <b>receiving waters</b>   | the waters into which this environmental authority authorises releases of mine affected water.   |
| <b>Register of Regulated Structure</b>  | includes: <ul style="list-style-type: none"> <li>• Date of entry in the register;</li> <li>• Name of the dam-structure, its purpose and intended/actual contents;</li> <li>• The consequence category of the dam-structure as assessed using the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures (ESR/2016/1933)</i>;</li> <li>• Dates, names, and reference for the design plan plus dates, names, and reference numbers of all document(s) lodged as part of a design plan for the dam-structure;</li> <li>• Name and qualifications of the suitably qualified and experienced person who certified the design plan and as constructed drawings;</li> <li>• For the regulated dams only, other than in relation to any levees - <ol style="list-style-type: none"> <li>a) The dimensions (metres) and surface area (hectares) of the dam measured at the footprint of the dam;</li> <li>b) Coordinates (latitude and longitude in GDA94) within five metres at any point from the outside of the dam including its storage area</li> <li>c) Dam crest volume (megalitres);</li> </ol> </li> </ul> |

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|                                   | <p>d) Spillway crest level (metres AHD).</p> <p>e) Maximum operating level (metres AHD);</p> <p>f) Storage rating table of stored volume versus level (metres AHD);</p> <p>g) Design storage allowance (megalitres) and associated level of the dam (metres AHD);</p> <p>h) Mandatory reporting level (metres AHD);</p> <ul style="list-style-type: none"> <li>• The design plan title and reference relevant to the dam;</li> <li>• The date construction was certified as compliant with the design plan;</li> <li>• The name and details of the suitably qualified and experienced person who certified that the constructed dam was compliant with the design plan;</li> <li>• Details of the composition and construction of any liner;</li> <li>• For regulated dams only the system for the detection of any leakage through the floor and sides of the dam;</li> <li>• Dates when the regulated dam underwent an annual inspection for structural and operational adequacy, and to ascertain the available storage volume for 1 November of any year;</li> <li>• Dates when recommendations and actions arising from the annual inspection were provided to the administering authority;</li> <li>• Dam water quality as obtained from any monitoring required under this authority as at 1 November of each year.</li> </ul> |
| <b>rehabilitation</b>             | the process of reshaping and revegetating land to restore it to a stable landform   |
| <b>release event</b>              | a surface water discharge from mine affected water storages or contaminated areas on the licensed place.  |
| <b>RL</b>                         | reduced level, relative to mean sea level as distinct from depths to water.   |
| <b>representative</b>             | a sample set which covers the variance in monitoring or other data either due to natural changes or operational phases of the mining activities.  |
| <b>regulated dam</b>              | any dam in the significant or high consequence category as assessed using the <i>Manual for Assessing Consequence Categories and Hydraulic Performance of Structures</i> (ESR/2016/1933) published by the administering authority.  |
| <b>regulated structure</b>        | includes land-based containment structures, levees, bunds and voids, but not a tank or container designed and constructed to an Australian Standard that deals with strength and structural integrity.  |
| <b>residual drilling material</b> | waste drilling materials including muds and cuttings or cement returns from well holes and which have been left behind after the drilling fluids are pumped out.  |

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| <b>residual void</b>   | means an open pit resulting from the removal of ore and/or waste rock, which will remain following the cessation of all mining activities and completion of rehabilitation processes   |
| <b>saline drainage</b>   | the movement of waters, contaminated with salts, as a result of the mining activity.   |
| <b>self sustaining</b>   | means an area of land which has been rehabilitated and has maintained the required acceptance criteria without human intervention for a period nominated by the administering authority.   |
| <b>sensitive place</b>   | <ul style="list-style-type: none"> <li>• a dwelling, residential allotment, mobile home or caravan park, residential marina or other residential premises; or</li> <li>• a motel, hotel or hostel; or</li> <li>• an educational institution; or</li> <li>• a medical centre or hospital; or</li> <li>• a protected area under the <i>Nature Conservation Act 1992</i>, the <i>Marine Parks Act 2004</i> or a World Heritage Area; or</li> <li>• a public park or gardens.</li> </ul> |
| <b>Structure</b>   | dam or levee.  |
| <b>Spillway</b>  | a weir, channel, conduit, tunnel, gate or other structure designed to permit discharges from the dam, normally under flood conditions or in anticipation of flood conditions.  |
| <b>spillway crest</b>  | means the highest point (elevation) of the spillway, above which water will flow along the spillway and discharge from the dam if the flow rate is sufficient  |
| <b>stable</b>  | means land form dimensions are or will be stable within tolerable limits now and in the foreseeable future. Stability includes consideration of geotechnical stability, settlement and consolidation allowances, bearing capacity (traffic ability), erosion resistance and geochemical stability with respect to seepage and contaminant generation   |
| <b>Stage 3 New Acland mine project</b>   | means the Stage 3 New Acland mine project that was approved in the CG's report.  |
| <b>suitably qualified and experienced person in relation to air emissions</b>        | A person who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the <i>Professional Engineers Act 2002</i> , and has demonstrated competency and relevant experience in relation to air emissions.   |
| <b>suitably qualified and experienced person in relation to noise</b>                | A person who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the <i>Professional Engineers Act 2002</i> , and has demonstrated competency and relevant experience as an acoustician.  |
| <b>suitably qualified and experienced person in relation to regulated structures</b> | a person who is a Registered Professional Engineer of Queensland (RPEQ) under the provisions of the <i>Professional Engineers Act 2002</i> , and has demonstrated competency and relevant experience:  |

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|                           |   |
|---------------------------|---|
|                           | <ul style="list-style-type: none"> <li>for regulated dams, an RPEQ who is a civil engineer with the required qualifications in dam safety and dam design.</li> <li>for regulated levees, an RPEQ who is a civil engineer with the required qualifications in the design of flood protection embankments.</li> </ul> <p>Note: It is permissible that a suitably qualified and experienced person obtain subsidiary certification from an RPEQ who has demonstrated competence and relevant experience in either geomechanics, hydraulic design or engineering hydrology.</p> |
| <b>system design plan</b> | a plan that manages an integrated containment system that shares the required DSA and/or ESS volume across the integrated containment system.   |
| <b>the Act</b>            | the <i>Environmental Protection Act 1994</i> .  |
| <b>tolerable limits</b>   | means that a range of values could be accepted to achieve an overall environmental management objective (eg a range of settlement of a tailing capping could still meet the objective of draining the cap quickly, preventing pondage and limiting infiltration and percolation)  |
| <b>uS/cm</b>              | microsiemens per centimetre.  |
| <b>ug/L</b>               | means micrograms per litre.   |
| <b>void</b>               | any constructed, open excavation in the ground.   |
| <b>watercourse</b>        | <p>has the meaning in Schedule 4 of the <i>Environmental Protection Act 1994</i> and means a river, creek or stream in which water flows permanently or intermittently—</p> <ul style="list-style-type: none"> <li>in a natural channel, whether artificially improved or not; or</li> <li>in an artificial channel that has changed the course of the watercourse.</li> </ul> <p>watercourse includes the bed and banks and any other element of a river, creek or stream confining or containing water.</p>   |
| <b>Waters</b>             | includes all or any part of a river, stream, lake, lagoon, pond, swamp, wetland, unconfined surface water, unconfined water in natural or artificial watercourses, bed and banks of a watercourse, dams, non-tidal or tidal waters (including the sea), stormwater channel, stormwater drain, roadside gutter, stormwater run-off, and groundwater.   |
| <b>Water quality</b>      | the chemical, physical and biological condition of water.   |
| <b>Water year</b>         | the 12-month period from 1 July to 30 June.   |
| <b>Wet season</b>         | the time of year, covering one or more months, when most of the average annual rainfall in a region occurs. For the purposes of DSA determination this time of year is deemed to extend from 1 November in one year to 31 May in the following year inclusive.  |

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**Agency Interest — Figures:**

The maximum area authorised to be disturbed on ML50232 is ~~1,575ha~~ generally as shown on Figure 1 (and in which context the word 'indicative' on Figure 1 is to be understood) which comprises:

- a. ~~pits, slope batters and out of pit dumps—1,422ha;~~
- b. ~~the train loadout facility, the material handling facility, the Balloon Loop and the Haul road—44ha;~~
- c. ~~surface infrastructure (being bores, roads for light vehicles, levees, culverts, hardstand areas, tracks, water storage dams, buildings and any other structures built for the purpose of mining activity)—109ha.~~

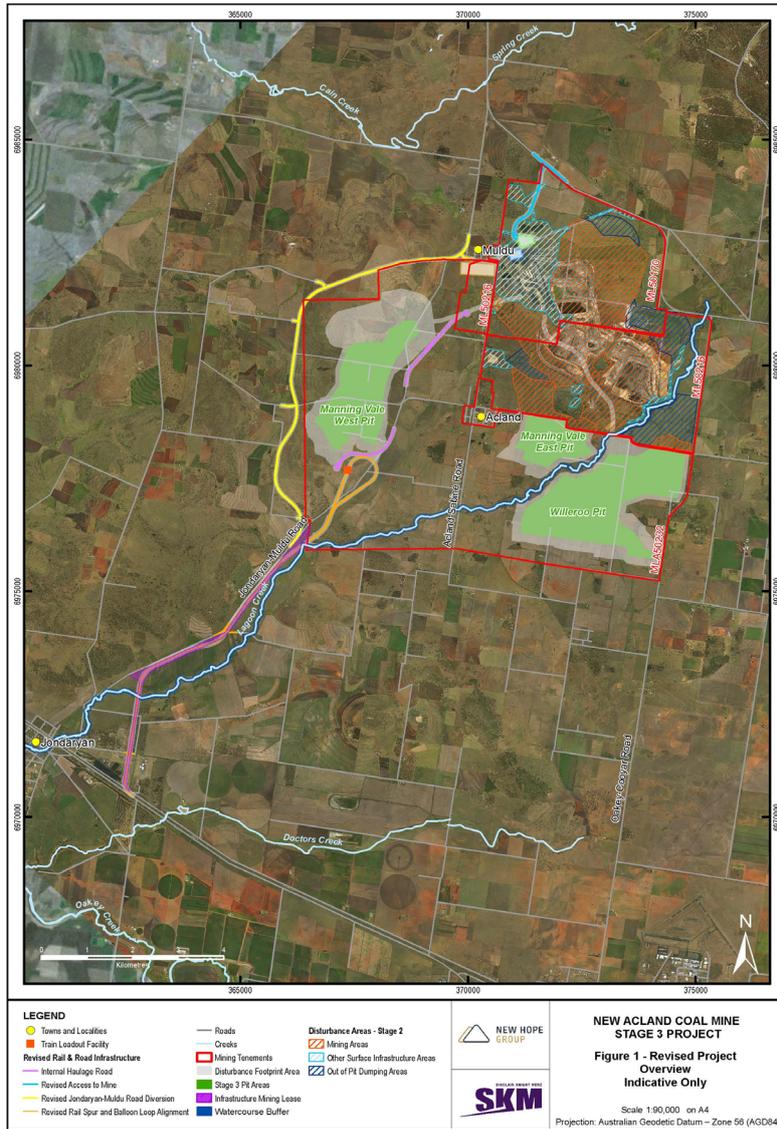
**Figure 1: Revised Project Overview — Mine Area**

[To be revised to include the northern part of Willeroo Pit in green and the associated overburden dump in grey shading and to remove the words "Indicative Only"]

**Commented [A46]:** Figure 1 is to be revised as per OCAA's primary submissions to be consistent with the EA Amendment Application and to remove uncertainty.

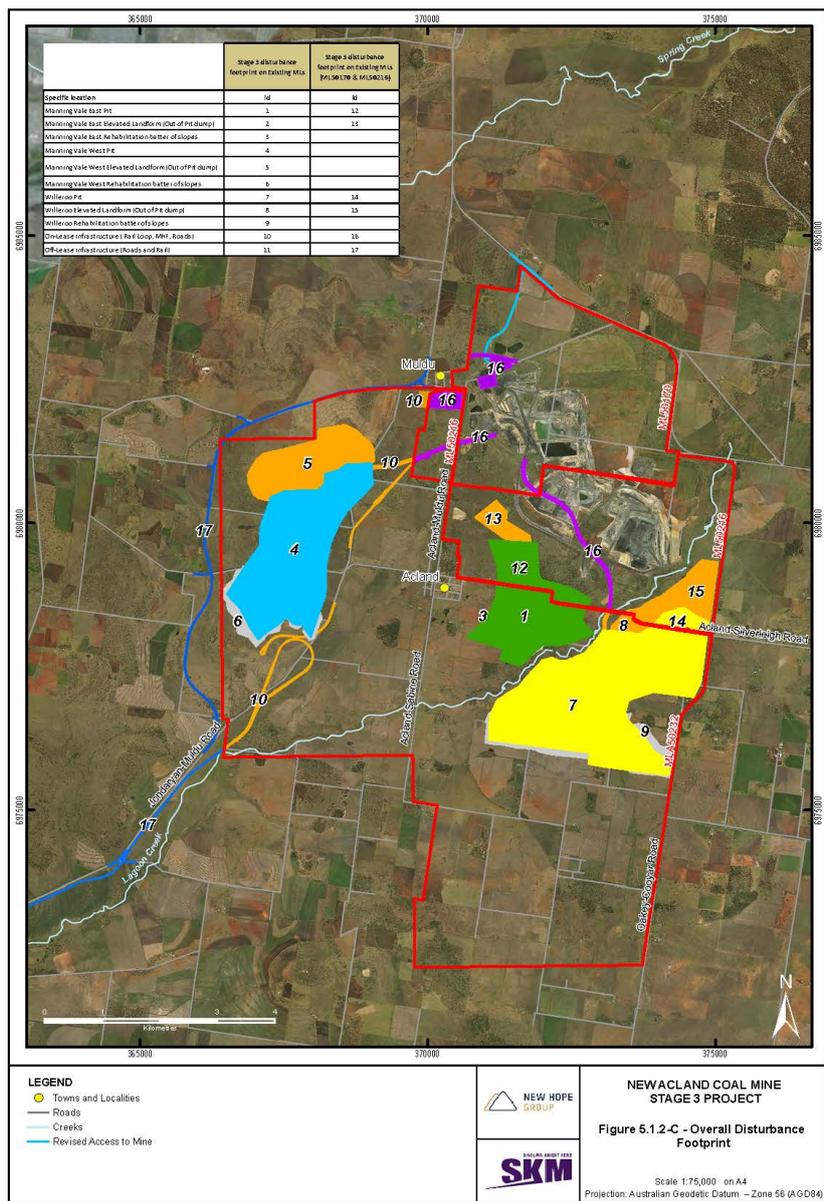
While OCAA has removed the SP reference to disturbance areas, it has included those words as part of Condition A2.

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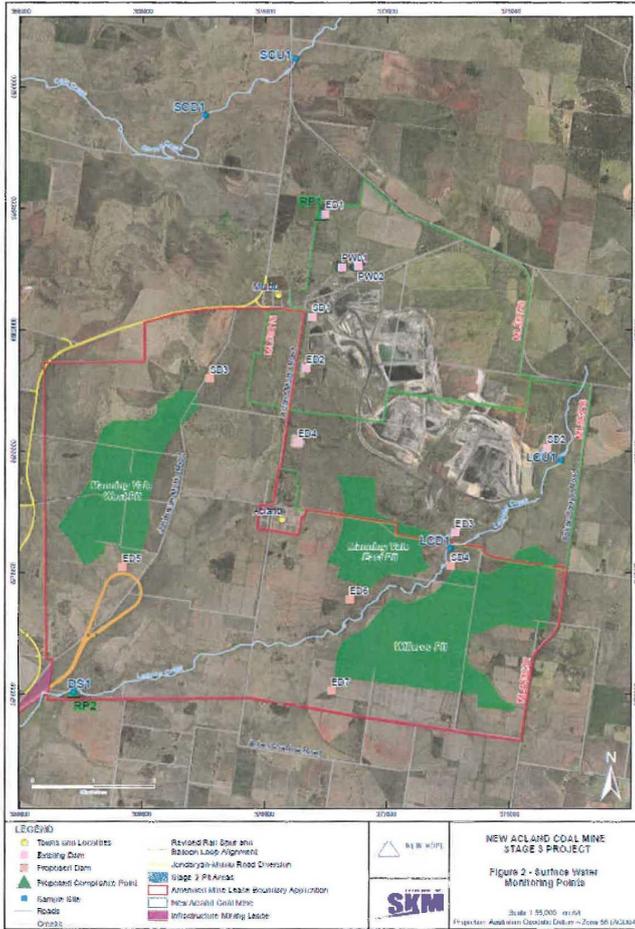
Draft environmental authority EPML00335713 — New Acland Coal Mine

Figure 1a: New Acland Coal Mine Stage 3 Project – Overall Disturbance Footprint



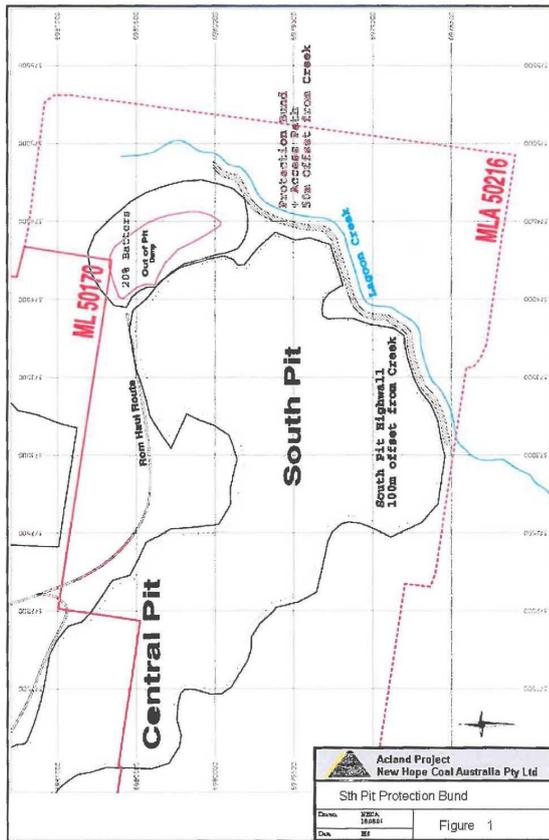
**Draft environmental authority EPML00335713 — New Acland Coal Mine**

**Figure 2: Mine affected water release points, sources and receiving waters monitoring**



Draft environmental authority EPML00335713 — New Acland Coal Mine

Figure 3: Lagoon Creek, buffer and levee



**Draft environmental authority EPML00335713 — New Acland Coal Mine**

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**Figure 4—Impact on vegetation and habitat**

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Figure 4 - Impact on vegetation and habitat

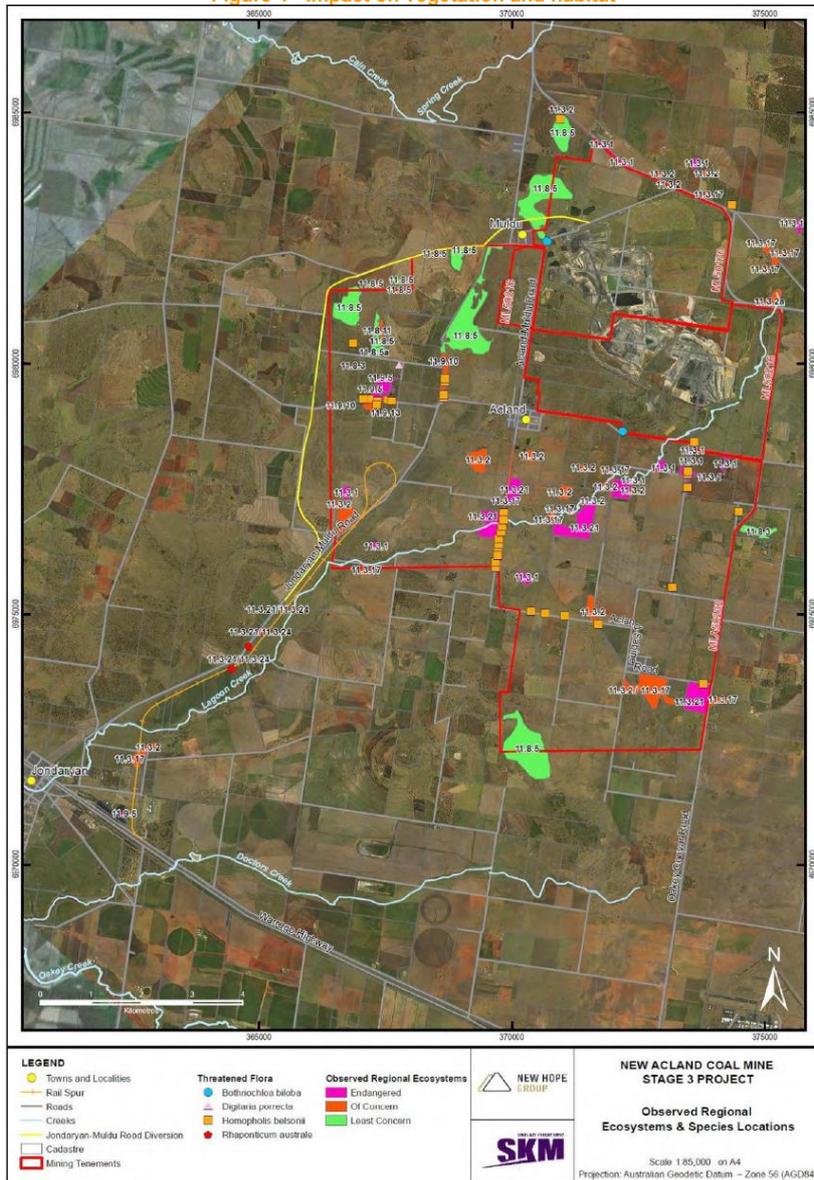
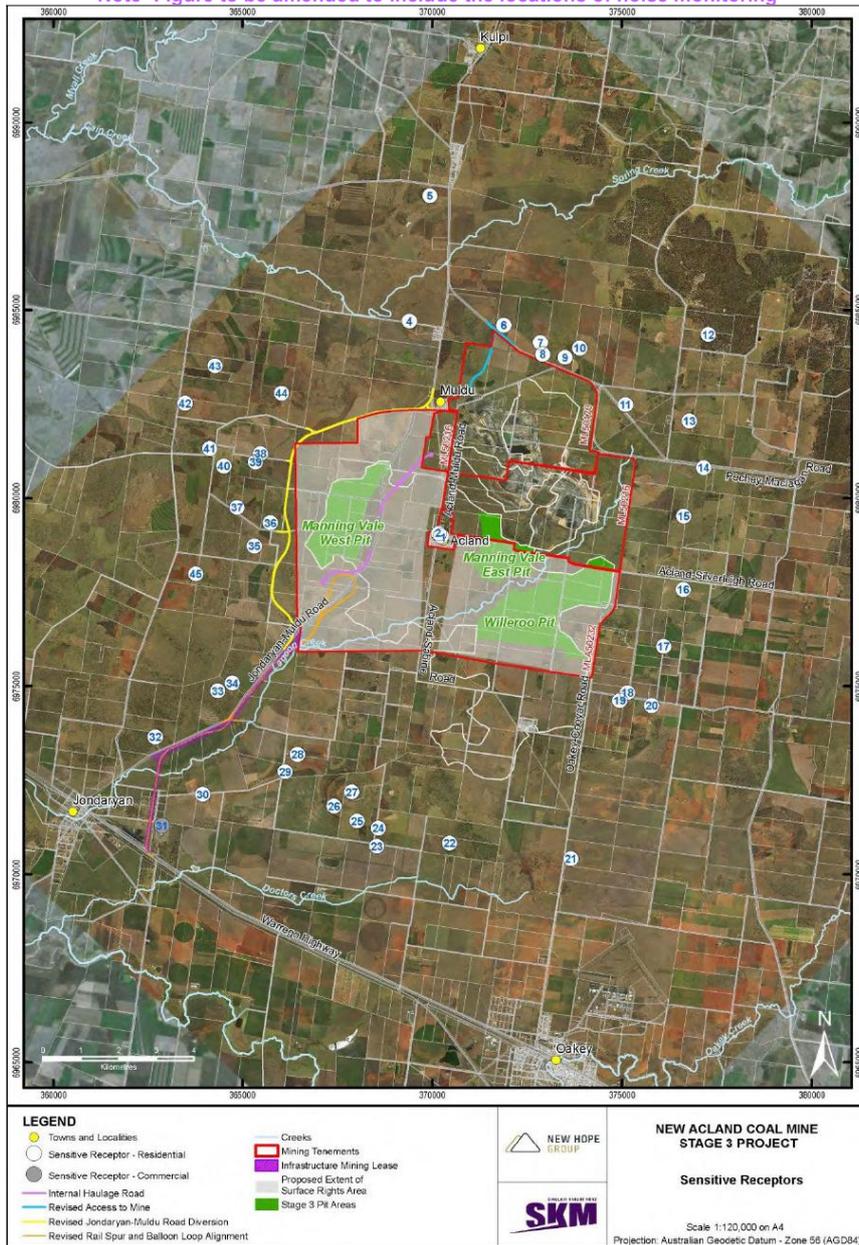


Figure 5 — Location of sensitive receptors

Figure 5 — Location of noise sensitive receptors

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Note- Figure to be amended to include the locations of noise monitoring

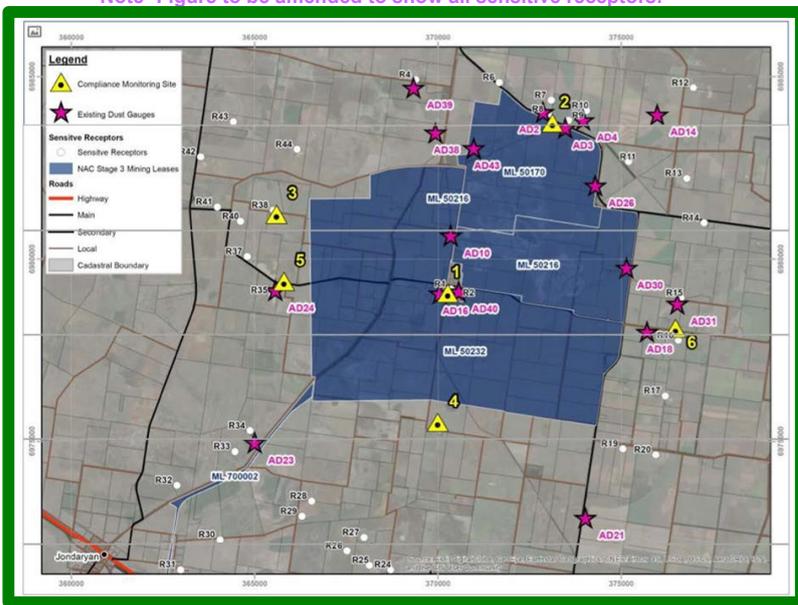


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Figure 6 — Air quality monitoring locations for the revised project (Stage 3)

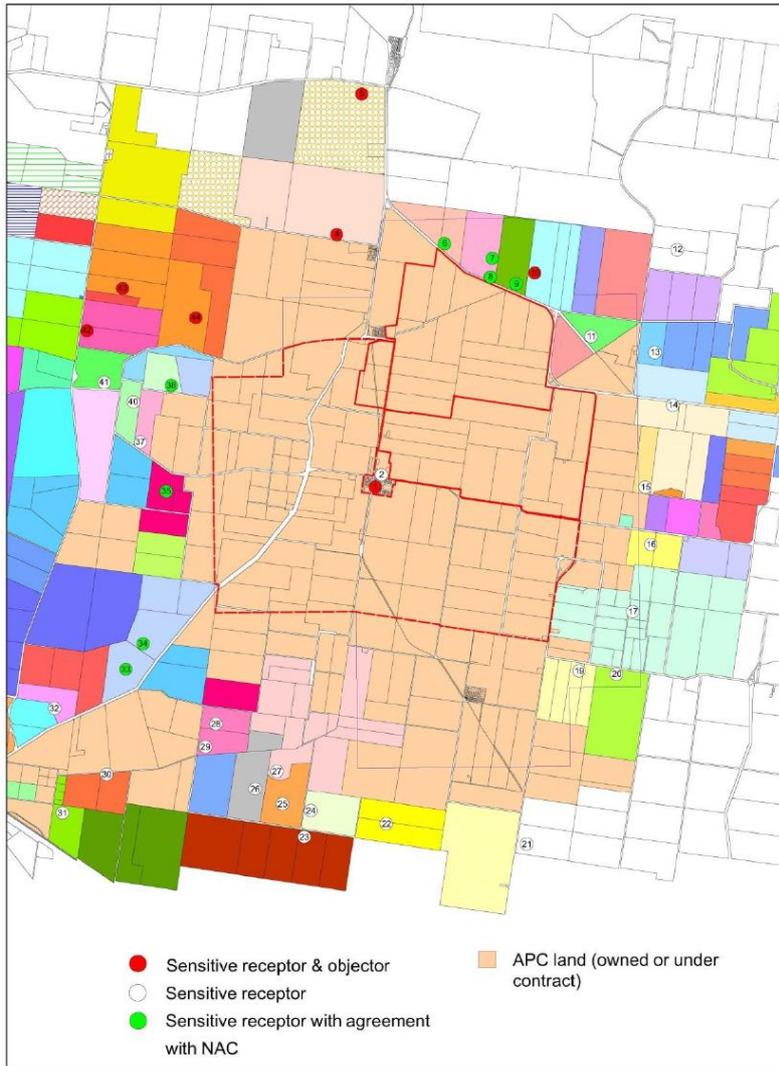
Figure 6 — Air quality monitoring locations for the revised project (Stage 3)

Note- Figure to be amended to show all sensitive receptors.



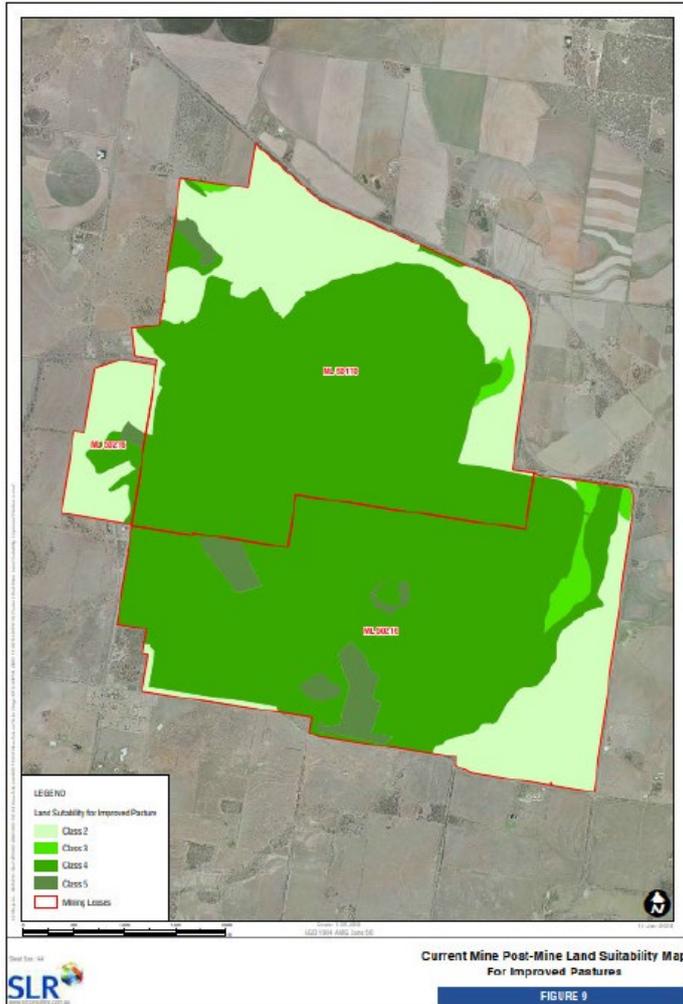
**Figure 7— Noise Sensitive Places (Mitigation)**

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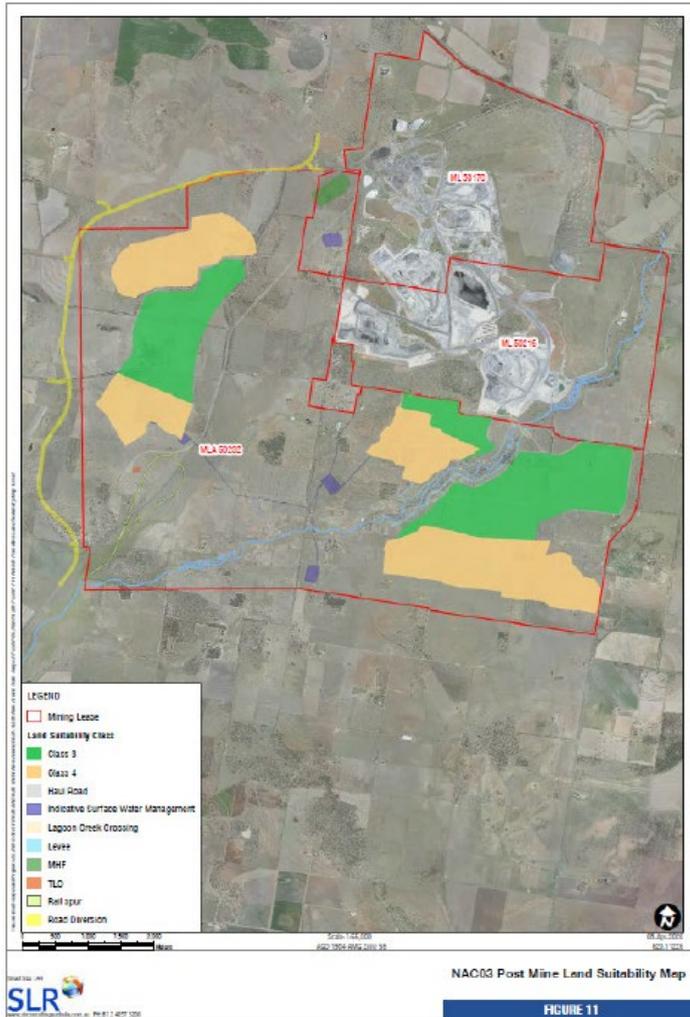
New Figure X1 – Current Mine Post Mine Land Suitability Map For Improved Pastures.

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New Figure X2 – NAC Stage 3 Post Mine Land Suitability Map

Draft environmental authority EPML00335713 — New Acland Coal Mine



# APPENDIX 6

## SUBMISSIONS ON NAC v OCAA [2021] QLC 29 (KINGHAM P)

1. At the review on 23 September 2021, the Court declined the submission by OCAA that it ought to read the decision of President Kingham in *NAC v OCAA* [2021] QLC 29 as part of its pre-trial reading at least partly on the basis of the operation of s 14 of the *Land Court Act 2000*.
2. OCAA seeks a ruling from the Court that OCAA be permitted to refer to and rely upon that decision.
3. OCAA's position is that the Court would be falling into legal error if it took the view that it could not read that decision, or that OCAA could not rely upon it to advance its case.
4. President Kingham's own conduct in the course of the *New Acland Coal Pty v Ashman Ors* (No 7) [2018] QLC 41 (**Second Land Court Hearing**) did not give rise to any apprehended bias on her part.<sup>1</sup>
5. While President Kingham recommendations in the Second Land Court Hearing are a nullity because of their reliance on Member Smith's conclusions in *New Acland Coal v Ashman (No 4)* [2017] QLC 24, it does not follow that President Kingham determinations in the current proceedings are a nullity.
6. Section 14 of the *Land Court Act 2000* provides that the Land Court is constituted for the exercise of jurisdiction by a Member sitting alone.
7. The plurality of the High Court said:<sup>2</sup>

whether the further orders made by Bowskill J, which had the effect of requiring Kingham P to adopt most of the findings and conclusions of Member Smith, were consistent with the requirement of the LCA that the Land Court be constituted for the exercise of jurisdiction by a Member "sitting alone" might be open to be questioned, but is not raised as an issue in the appeal.
8. If the case management performed by President Kingham in this case was not inconsistent with section 14 of the *Land Court Act 2000*, then it follows axiomatically that it would not be inconsistent with that section for the Presiding

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<sup>1</sup> OCAA v NAC [2021] HCA 2 at [49]

<sup>2</sup> OCAA v NAC [2021] HCA 2 at [42]

Member to have regard to President Kingham's reasons given for those case management orders. Of course, if President Kingham's orders were inconsistent with section 14 of the *Land Court Act 2000*, then that deficiency cannot be cured by the Presiding Member simply not reading the reasons.

9. If section 14 does not preclude case management functions being heard and determined by a separate member, then it cannot operate to prevent the Presiding Member from reviewing the file, including any case management decisions.

# APPENDIX 7 - GLOSSARY

## GLOSSARY

| Term / Acronym               | Definition   |
|------------------------------|--|
| 2014 Advitech Report         | Advitech Report dated 8 July 2014 (Exhibit 39, OCA.0226)   |
| 2016 Advitech Report         | Advitech Report dated 28 July 2016 (Exhibit 39, NAC.0063)  |
| AEIS                         | Additional information to the EIS for the revised Stage 3 project dated 2014 (Original Hearing Exhibits 87 – 113, EHP.0087 - EHP.0113)   |
| Air Quality JER              | The joint expert report prepared by Mr Simon Welchman for the Applicant and Mr John Taylor for OCAA, dated 1 October 2021 (Exhibit 24, NAC.0126)   |
| AOI                          | Area of Interest   |
| Applicant or NAC             | The applicant for the MLAs and EA Amendment Application, being New Acland Coal Pty Ltd   |
| Applicant's Draft EA         | Marked up draft Environmental Authority which the Applicant contends should be recommended by the Court in the event of an Approval Recommendation in accordance with Order 3 of the Land Court Order made on 15 November 2021.          |
| Application for Declarations | Application for Declarations and Stay made by OCAA on 10 March 2021  |
| Application for Orders       | Application for Orders made by OCAA on 9 March 2021  |
| Applications                 | The MLAs and EA Amendment Application  |
| AQMP                         | Air Quality Management Plan  |
| Beutel Affidavit             | The affidavit of Glenn Beutel sworn 4 August 2021 (Exhibit 1, F.0075)  |
| CG                           | Coordinator-General - The corporation sole constituted under section 8A of the <i>State Development and Public Works Organisation Act 1938</i> (Qld) and preserved, continued in existence and constituted under section 8 of the SDPWOA |
| CG's Report                  | The final report on the EIS and AEIS submitted by the CG dated 19 December 2014 (Original Hearing – Exhibit 16, EHP.0016)  |
| CG's First Change Report     | Coordinator-General's Change Report No.1, dated 12 February 2019 (Exhibit 39, NAC.0053)  |

| <b>Term / Acronym</b>     | <b>Definition</b>   |
|---------------------------|---|
| CG's Second Change Report | Coordinator-General's Change Report No.2, dated September 2020 (Exhibit 39, NAC.0054)   |
| CG's Third Change Report  | Coordinator-General's Change Report No.3, dated September 2020 (Exhibit 39, NAC.0055)   |
| CHPP                      | Coal Handling Preparation Plant   |
| Current EA                | Stage 2 EA granted in 2006 (Exhibit 39, NAC.0120)   |
| dB(A)                     | Decibels measured at the 'A' frequency weighting network  |
| DES                       | Queensland Department of Environment and Science (the Statutory Party)  |
| DEHP/EHP                  | Queensland Department of Environment and Heritage Protection (historical)   |
| DNRM                      | Queensland Department of Natural Resources and Mines  |
| EA                        | Environmental Authority   |
| EA Amendment Application  | The application to amend EA number EPML00335713, lodged 13 April 2015 (Exhibit 39, EHP.0003)  |
| EIS                       | Environmental impact statement for the revised project including the AEIS   |
| Elkin 2018 Memo           | Review of Noise Data – New Acland (Stage 2) Coal Mine prepared by SLR dated April 2018 (Exhibit 39, OCA.0059).  |
| Elkin SoE                 | The Statement of Evidence prepared by Mr Shane Elkin for the Applicant in the field of Noise and Vibration, dated 18 March 2016 (Original Hearing Exhibit 1114; Original Hearing Document ID: NAC.0060) |
| Enforcement Guidelines    | Enforcement Guidelines published by EHP dated February 2016 (Original Hearing Exhibit 1879, NAC.0218)   |
| EPA                       | <i>Environmental Protection Act 1994</i> (Qld)  |
| EPA Criteria              | The criteria contained in section 191 of the EPA, that is to be considered by the Land Court in making its decision in respect of the EA Amendment Application  |
| EPP                       | Environmental Protection Policy (water, air, waste, noise)  |
| EPP (Air)                 | <i>Environmental Protection (Air) Policy 2019</i>   |

| <b>Term / Acronym</b>        | <b>Definition</b>   |
|------------------------------|---|
| EPP (Noise)                  | <i>Environmental Protection (Noise) Policy 2019</i>   |
| EPR                          | <i>Environmental Protection Regulation 2019</i>   |
| ESD                          | ecologically sustainable development  |
| Harrison Affidavit           | The First Affidavit of Aileen Harrison sworn 4 August 2021 (Exhibit 3, OCA.0215)  |
| IPA                          | <i>Invasion of Privacy Act 1971 (Qld)</i>   |
| JER                          | Joint Expert Report   |
| JER Noise                    | The joint expert report prepared by Mr Shane Elkin for the Applicant and Mr Darren Tardio for OCAA, dated 13 October 2021 (Exhibit 19, NAC.0036)                                    |
| JER Air Quality              | The joint expert report prepared by Mr Simon Welchman for the Applicant and Mr John Taylor for OCAA, dated 1 October 2021 (Exhibit 24; NAC.0126)                                    |
| $L_{Aeq}$                    | the average A-weighted sound pressure level of a continuous steady sound that has the same mean square sound pressure as a sound level that varies with time                        |
| $L_{Amax}$                   | the maximum average A-weighted sound pressure measured over a specified period of time  |
| Lay Witness Application      | The application filed by the Applicant on 12 August 2021, seeking to exclude the lay witness evidence of Angela Mason, Aileen Harrison and Glenn Beutel from the objections hearing |
| LCA                          | <i>Land Court Act 2000 (Qld)</i>  |
| m                            | metre   |
| $\max L_{PZ,15 \text{ min}}$ | the maximum value of the Z-weighted sound pressure level measured over 15minutes  |
| McCosker Draft EA            | Marked up Draft Environmental Authority exhibited to the Affidavit of Juliana McCosker filed 10 March 2021 (F.0020). Now superceded by the Statutory Party Draft EA.                |
| ML                           | Mining Lease  |
| MLA                          | mining lease application  |
| MLAs                         | The application for mining lease 50232, signed on 24 May 2007 (Exhibit 39, EHP.0120) and application for mining lease 700002 lodged on 15 January 2015 (Exhibit 39, EHP.0119)       |
| MOH                          | Mining Objection Hearing  |

| <b>Term / Acronym</b>    | <b>Definition</b>   |
|--------------------------|---|
| MRA                      | <i>Mineral Resources Act 1989</i> (Qld)   |
| MRA Criteria             | The criteria contained in section 269(4) of the MRA, that is to be considered by the Land Court in making its decision in respect of the MLAs   |
| Mt                       | million tonnes  |
| Mtpa                     | million tonnes per annum  |
| NAC or the Applicant     | The applicant for the MLAs and EA Amendment Application, being New Acland Coal Pty Ltd  |
| NEPMs                    | National Environmental Protection Measures  |
| NEPM Air                 | National Environment Protection (Ambient Air Quality) Measure registered 26 May 2021  |
| New Acland Mine          | The coal mining project the subject of these proceedings, currently operated by the Applicant on ML 50170 and ML 50216  |
| New Hope                 | New Hope Corporation Limited  |
| NVMP                     | Noise and Vibration Management Plan (Exhibit 39, NAC.0044)  |
| OCAA                     | Oakey Coal Action Alliance Inc.   |
| OCAA Amended Objections  | On 18 June 2021, OCAA filed a Further Amended “Grounds of Objection on Which OCAA Continues to Rely and Related Matters”  |
| O’Dwyer First Affidavit  | Affidavit of David Patrick O’Dwyer affirmed 5 August 2021 (Exhibit 16, NAC.0010)  |
| O’Dwyer Second Affidavit | Affidavit of David Patrick O’Dwyer affirmed 7 September 2021 (Exhibit 17, NAC.0021)   |
| OCAA’s Draft EA          | Draft Environmental Authority which OCAA contends should be recommended by the Court in the event of an Approval Recommendation in accordance with Order 3 of Land Court Order made on 15 November 2021, at Appendices 5A and 5B of these submissions |
| OCE                      | Open Cut Examiner   |
| Original Draft EA        | The draft amended EA, issued by EHP on 28 August 2015 in relation to the EA Amendment Application (Original Hearing – Exhibit 9, EHP.0009)  |
| Original Stage 3 EIS     | Environmental Impact Statement for the original Stage 3 project including the AEIS dated 2009   |

| Term / Acronym          | Definition  |
|-------------------------|---|
| PM <sub>10</sub>        | particulate matter with equivalent aerodynamic diameter less than 10µm  |
| PM <sub>2.5</sub>       | particulate matter with equivalent aerodynamic diameter less than 2.5µm   |
| Recommended Conditions  | The conditions listed in Appendix 3 of the CG's Report, being conditions recommended by the CG under section 52 of the SDPWOA to guide the assessment managers in assessing the development applications  |
| Revised Stage 3 EIS     | Environmental Impact Statement for the revised Stage 3 project including the AEIS dated 2014  |
| ROM                     | run-of-mine   |
| SDPWOA                  | <i>State Development and Public Works Organisation Act 1971</i> (Qld)   |
| SLR                     | SLR Consulting Limited  |
| SLR Winter Survey 2018  | SLR Consulting Limited's Noise Survey of Winter 2018 (Exhibit 39, NAC.0149)   |
| SLR Winter Reports 2020 | SLR Consulting Limited's series of noise surveys of Winter2020. Located in O'Dwyer Second Affidavit (Exhibit 17, NAC.0021) PDF p 496 (August 2020 report PDF p 659, DPO-22 (June 2020 report p 432, July 2020 report))  |
| SoE                     | Statement of Evidence   |
| SP                      | Soft Page   |
| SR                      | sensitive receptor  |
| Stage 3                 | The proposed project that is the subject of the MLAs and EA Amendment Application currently before this Court   |
| Stated Conditions       | The conditions listed in Appendix 2 of the CG's Report, being conditions stated (but not enforced by) the Coordinator-General under sections 39, 45, 47C, 49, 49B and 49E of the SDPWOA   |
| Statutory Party         | Prior to December 2017, the Queensland Department of Environment and Heritage (EHP)<br>After December 2017, the Queensland Department of Environment and Science (DES) per the <i>Public Service Act 2008</i> (Qld) Part 2, Division 2 – Administrative Arrangements Order (No.3) 2017. |

| <b>Term / Acronym</b>    | <b>Definition</b>   |
|--------------------------|---|
| Statutory Party Draft EA | Marked up draft Environmental Authority which the Statutory Party contends should be recommended by the Court in the event of an Approval Recommendation in accordance with Order 3 of the Land Court Order made on 15 November 2021. |
| Stage 2 EIS              | Environmental Impact Statement for the Stage 2 project dated 2006, including Exhibit 39, TMP.0827 23, hard page 2-2, soft page 2.   |
| Stage 2                  | Mining operations at the New Acland Coal mine site from 2006 under Stage 2 Environmental Authority Amendment Application (Exhibit 39, NAC.0120) and ML 50216.   |
| Strike Out Application   | Strike Out Application filed on 21 May 2021 by the Applicant  |
| TARP                     | Trigger Action Response Plan  |
| TSP                      | total suspended particles   |

# APPENDIX 8 - OCAA'S LAY WITNESSES

## OCAA'S LAY WITNESSES

1. Lest it be said that the Court should draw any adverse inferences against OCAA's case from the lack of active objectors and from the fact that OCAA is only calling two lay witnesses, we wish to place a number of facts on the record.
2. Firstly, the hearing in 2016 took nearly 100 days. The Court can take judicial notice of the fact that that is a significant impost of anyone, let alone farming families.
3. Secondly, the Court's Practice Direction does not enable a person to simply turn up and make a submission and then be excused. To the contrary – and this is the point we sought to make at the review on 23 September 2021, Direction 15 of Practice Direction 4 states:
  15. An active party must participate fully at all stages of a MOH and must comply with the Court's directions about procedure.
4. In other words, remaining an active party has potential consequences in terms of time management, not to mention the potential for very significant costs orders being made, which we come to now.
5. On 11 February 2021, President Kingham ordered that any orders made on costs for the first hearing and limited rehearing of the Applicant's applications for mining leases and environmental authorities for "Acland Stage 3" be reserved until the conclusion of the second rehearing.
6. After that order was made, the active objectors all became inactive after the Applicant offered them a deal – that is, it would not seek costs against them for the previous hearing if they withdraw as active objectors (**No Costs Agreement**).
7. Ms Harrison deposes to the fact that part of the reason why she elected to become inactive was a fear of costs orders being made against her.<sup>1</sup>
8. The relevant history involving the previously active objectors becoming inactive objectors early in the rehearing process is outlined above and found in:

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<sup>1</sup> Harrison Affidavit (Exhibit 3, OCA.0215) [3].

- a) paragraphs 4, 5 and 11-12 of Mark Geritz’s affidavit affirmed 12 August 2021,<sup>2</sup> in which Mr Geritz set out the offer to objectors that “the Applicant ... will not to pursue any costs order against any objector if they cease to be an active objector ...”, which Ms Mason, Ms Harrison, and Mr Beutel accepted, along with all objectors other than OCAA; and
- b) Exhibit SPR-7 to the affidavit of Sean Patrick Ryan filed 9 March 2021,<sup>3</sup> which set out an email from Tanya Plant to the Court and all parties, where she said in relation to costs:

So, even though we have remaining concerns, I am no longer confident that I, or any of my family, can afford to take the risk to participate in this process. However, I am also concerned about risks of dropping back to a level 1 / inactive objector or withdrawing or even reducing the scope of my grounds or issues at this next hearing.

9. Given the history of this mine, the concerns about costs and the election by the objectors to accept the Applicant’s offer to become inactive on the basis of the Applicant not seeking costs against them were not surprising.
10. We refer the Court to two decisions concerning objections to stage 1 of the New Acland Mine and are relevant to understanding the reasons why the objectors are so concerned about costs despite raising genuine concerns about the impacts of the mine on them:
  - a) *Re New Acland Coal Pty Ltd [No 3]* [2001] QLRT 30 at [1] – [2].
  - b) *Re New Acland Coal Pty Ltd [No 2]* [2001] QLRT 14
11. The application for the Stage 1 mining lease for the New Acland Mine (ML51070) was made on 2 November 2000 and was subject to 15 duly lodged objections.<sup>4</sup>
12. The objectors applied for disclosure of documents and the application was dismissed with costs by Koppenol P on 28 March 2001.<sup>5</sup>

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<sup>2</sup> Exhibit 39, NAC.0014.

<sup>3</sup> Exhibit 39, F.0018.

<sup>4</sup> *Re New Acland Coal Pty Ltd [No 3]* [2001] QLRT 30 at [1] – [2].

<sup>5</sup> *Re New Acland Coal Pty Ltd [No 2]* [2001] QLRT 14.

13. Following the award of costs, all 15 objections were withdrawn,<sup>6</sup> and on 24 May 2001 Member Smith of the tribunal recommended that the mining lease be granted.<sup>7</sup>
14. There have been number of changes to the costs provisions for this Court during the life of the stage 3 application.
  - a) When the proceedings were first heard by Member Smith in 2015-2016, the Land Court lacked power to award costs in mining objections hearings and Member Smith refused to award costs to NAC at an early stage of the hearing on that basis.<sup>8</sup>
  - b) By 27 January 2017, the Court’s power to make an order for costs under s 34 for MOHs was restored due to a number of legislative amendments: *State Development and Public Works Organisation and Other Legislation Amendment Act 2016*, inserting ss 96 and 97 in the *Land Court Act 2000* (Qld), *Land Court (Transitional) Regulation 2017* (Qld), *Court and Civil Legislation Amendment Act 2017*, Part 16, ss 140-146.
  - c) On 1 July 2020, *The Justice and Other Legislation Amendment Act 2020 (JOLA Act)* amended the LC Act again, so that s 34 no longer governs the law on costs in MOHs. Instead, the JOLA Act inserted a new costs provision for MOHs in s 52C, which restricts the Court’s discretion to award costs to a more limited set of circumstances so that, generally an “own costs” rule applies.
  - d) The JOLA Act also inserted s 100 of the LC Act which provides that the JOLA Act (including its insertion s52C of the LC Act) does not apply to if “the Land Court had started, but not finished, performing a function or exercising a power conferred on the court under a recommendatory provision”. It is unclear whether that transitional provision applies in the circumstances of this hearing and OCAA will make submissions on that point, if necessary, in relation to costs at the end of the hearing.

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<sup>6</sup> *Re New Acland Coal Pty Ltd [No 3]* [2001] QLRT 30 at [2].

<sup>7</sup> *Re New Acland Coal Pty Ltd [No 3]* [2001] QLRT 30 at [39].

<sup>8</sup> *NAC v Ashman & Ors (No. 2)* [2016] QLC 30 at [2]-[7].

15. OCAA notes that the provisions relating to costs are far from straightforward.
16. Given that history, there should be no inferences that the active objectors have become inactive because they are someone now satisfied with the way in which noise and dust is to be managed as part of stage 3.
17. Finally, we wish to explain why Ms Mason is not being called to give evidence. OCAA filed a lay witness statement of Ms Mason in this rehearing that was subsequently withdrawn.
18. On 12 August 2021, the Applicant filed an application (**Lay witness Application**<sup>9</sup>) seeking to exclude the lay witness evidence of Ms Mason, Ms Harrison and Mr Beutel from the objections hearing, contending that:
  - a) the lay witness statements were inconsistent with the Court's practice direction for mining objections hearings because the witnesses had elected not to be an active party in the rehearing; and
  - b) the lay witness statements were in breach of the No Costs Agreements between NAC and the witnesses made on election of the witnesses to become inactive objectors on 17 March 2021.
19. On 18 August 2021, after consultation with Ms Mason, OCAA, Ms Mason and NAC signed a Deed of Settlement Agreement (**Deed**) withdrawing her affidavit and undertaking not to seek to rely on it or any evidence or submissions of Ms Mason in the hearing, conditional upon the Applicant not seeking costs against Ms Mason, or OCAA, for matters incidental to the Lay Witness Application.<sup>10</sup> The Deed, which was without prejudice to the parties' rights to table it at this hearing and was tendered by OCAA in the preliminary hearing on the Lay Witness Application, notes:
  12. OCAA is concerned to ensure the Inactive Objectors and itself are not exposed to potential costs or damages, or the possibility of further litigation, associated with the filing of the Affidavits.

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<sup>9</sup> NAC.0013.

<sup>10</sup> Exhibit 40, OCA.0257.

13. Angela Mason is concerned that she is not exposed to potential costs or damages, or the possibility of further litigation, associated with the filing of her affidavit.
20. On 19 August NAC's Lay Witness Application was heard by President Kingham, who dismissed the Application on 20 August 2021 with reasons published in *New Acland Coal Pty Ltd v Oakey Coal Action Alliance Inc. & Ors* [2021] QLC 29. At paragraph 27 of that judgment, President Kingham wrote:
- It is a matter of public record that some of the self-represented objectors were concerned about their exposure to an order to pay costs of the original hearing, the limited rehearing, and this rehearing. Given the history of this matter, that concern is understandable.
21. Again, the Court should draw no inferences from the fact that OCAA is only calling two witnesses.

**[END OF OCAA'S CLOSING SUBMISSIONS]**