

**IN THE MATTER OF THE  
FINGERBOARDS MINERAL SANDS PROJECT  
INQUIRY AND ADVISORY COMMITTEE**

**CLOSING SUBMISSION ON BEHALF OF  
MINE-FREE GLENALADALE**

**A. INTRODUCTION**

1. Mine-Free Glenaladale Inc. (**MFG**) maintains its opposition to the Fingerboards mineral sands mine project (the **Project**) in the strongest terms.
2. After ten weeks of public hearings, it is clear that the environmental effects of locating a mine in this particular landscape have still not been adequately assessed, or are simply unacceptable and unable to be mitigated.
3. Since MFG's Part B Submissions were presented in early June, the Inquiry and Advisory Committee (the **IAC**) has heard from the Environment Protection Authority (the **EPA**), various community groups, businesses and individual submitters.
4. MFG supports in general terms the many and varied individual submitters, businesses and community groups who have made submissions to the IAC over the past few weeks in opposition to the Project. As a whole, the submissions demonstrate the degree to which the community – both local and more broadly – strongly oppose the Project.
5. These Closing Submissions respond to the Part C Submission made on behalf of the Proponent, and should be read in conjunction with the previous submissions made on behalf of MFG.<sup>1</sup>

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<sup>1</sup> Opening Submissions of MFG (3 May 2021) ([Tabled Document 250](#)); Part B Submission of MFG (3 June 2021) ([Tabled Document 451](#)).

## B. GAPS / OMISSIONS

6. The Part C Submissions made on behalf of the Proponent was lengthy, spanning 200 pages and enclosing an additional 26 tabled documents. It is impossible for MFG to respond in any detail to this amount of material, much of which could have been tabled as part of the Proponent's Part B submissions. Despite this, there were a number of glaring omissions.
7. For example, the Proponent failed to address the fact that the tailings to be returned to the mine void should be characterised and treated as "waste".
8. There has been evidence before the Proponent (and the IAC) since early February 2021 that the mine void backfill had been erroneously characterised as "soil" rather than "waste".<sup>2</sup> Moreover, both the draft and final Section 50(3) Notice to Supply Further Information ask the Proponent to describe:
  - a. the form, characteristics, and categories of the solid waste and centrate produced by the centrifuges in line with Hazard categories identified in the *Environment Protection Regulations 2021*, and the accompanying *Waste classification assessment protocol (EPA Publication 1827)* and *Waste disposal categories - characteristics and thresholds (EPA Publication 1828)*; and
  - b. the consideration given to the appropriate disposal of centrifuge wastes and confirm how those wastes will be disposed of consistent with the *EP Act 2017*.<sup>3</sup>
9. The Proponent also failed to acknowledge or address the regulatory requirements associated with the discharge of water (leachate) seeping from the tailings to the groundwater.<sup>4</sup>
10. There is evidence before the IAC that it is unlikely all residual water will remain permanently entrained within the centrifuged cake once it is deposited into the mine voids. Rather, this water will, over time, seep from the caked tailings into the groundwater.

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<sup>2</sup> See Expert Witness Statement of Dr Jessica Drake (27 January 2021) ([Tabled Document 90](#)) 50.

<sup>3</sup> Section 50(3) Notice to Supply Further Information DRAFT (8 June 2021) ([Tabled Document 488](#)) 7; Section 50(3) Notice to Supply Further Information FINAL (19 July 2021) ([Tabled Document 684](#)) 7.

<sup>4</sup> See Part B Submission of the EPA (7 June 2021) ([Tabled Document 486](#)) 9-10.

11. The Proponent failed to address transport of radioactive HMC along the transport route from the Project site, through metropolitan Melbourne, to the Port of Geelong, or how HMC will be managed at the Port of Geelong (except by reference to hearsay comments from the operator of the Port of Portland).
12. The Proponent's Part C submissions engage in detail with Council's submissions, but not with MFG's submissions.
13. The above are just a few examples of important issues upon which the IAC is not in a position to make findings on whether acceptable environmental outcomes can be achieved having regard to legislation, policy, best practice, and the principles and objectives of ecologically sustainable development.

## C. RESPONSE WITH RESPECT TO SPECIFIC ENVIRONMENTAL EFFECTS

### *C.1 Water, Catchment Values and Hydrology*

14. Regarding changes to the availability of water, the Proponent submits that:

The Latrobe Group aquifer is fully allocated and surface water from the Mitchell River soon will be. Consequently, even if the Project did not go ahead, the same volume of water could be extracted from both systems, albeit by different persons. As a result, it is difficult to say that the Project itself will have any impact on the overall availability relative to a 'no project scenario' (acknowledging that the location from which water is extracted could bear upon availability at a local level).<sup>5</sup>

15. MFG disagrees with the Proponent's reasoning on the changes to the availability of water. With respect to surface water, much was said about the operation of the "water market",<sup>6</sup> but ultimately the Proponent's competition for 2GL of surface water by auction will be in direct competition with farmers on "exceptional" horticultural land. With respect to groundwater, the Latrobe Group aquifer is over allocated and being unsustainably pumped. There is evidence before the IAC that

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<sup>5</sup> Part C Submissions of Kalbar Operations Pty Ltd (20 July 2021) ([Tabled Document 698](#)) 31 [106].

<sup>6</sup> Ibid 35 [117]-[118].

aquifer levels have been falling substantially over time in the Latrobe Group aquifer and that current extractions far exceed recharge.<sup>7</sup>

16. MFG disagrees with a number of the Proponent's submissions on water quality.
17. First, the Proponent's submissions on the mobilisation of existing elevated levels of nutrients and metals in the Coongulmerang Formation and transport of these toward the Mitchell River misconstrue the evidence of Dr Currell.<sup>8</sup> The Proponent submit that "to the extent he expressed the view that the uncertainty was unacceptable... this was on the basis that the acceptable level of uncertainty was determined by community concern, rather than risk analysis".<sup>9</sup> MFG respectfully disagree.
18. On this topic, Dr Currell gave evidence in chief:<sup>10</sup>

It's quite reasonably established now there will be some rise in this water table underneath the site. We know that there is reasonably high levels of contaminants within the water table aquifer currently, even under the baseline conditions, so it is highly likely that there's going to be increased discharge or movement of groundwater within that aquifer towards those surface systems which may then result in an increase in the amount of groundwater that then discharges and reaches those surface water systems. So that's the kind of risk pathway we're talking about here.

The Mitchell River is known to be very heavily dependent upon groundwater inflow when it's dry, particularly. So, in normal climatic times or wet periods it's a high flowing river..., but when it's dry, it becomes reversed being very much dependent on groundwater inflow. So, if there are any issues with contaminants in those low flow periods, then potentially you've got a very high proportion of that groundwater sustaining the flow and if that water is of poor quality then you can potentially have environmental harm occurring within that system. So that's the kind of risk we're talking about.

19. Dr Currell gave further evidence in chief, in response to questioning on acceptable levels of uncertainty:<sup>11</sup>

In terms of how uncertain is acceptable, it comes back to the interface between the science and the key stakeholders that are involved in this issue. We need to have a look at what is

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<sup>7</sup> Expert Witness Statement of Associate Professor Matthew Currell (29 January 2021) ([Tabled Document 88](#)) 4 [7].

<sup>8</sup> See Part C Submissions of Kalbar Operations Pty Ltd (20 July 2021) ([Tabled Document 698](#)) 38-39. <sup>9</sup> [134].

<sup>10</sup> Evidence in chief of Associate Professor. Currell (31 May 2021) <https://www.youtube.com/watch?v=YaFXOUiftQE> (around 1.27:00).

<sup>11</sup> Ibid (around 1.55:00).

the particular impact where you have that uncertainty, so whether it's a contaminant impact or a borefield impact, we define what is the impact we are concerned about, and then it needs to be a discussion about how much do we care about this and if we care about it a lot then we want to have a very comprehensive program to reduce that uncertainty.

20. The issue is that there is a clearly identified risk pathway for the mobilisation of existing elevated levels of nutrients and metals in the Coongulmerang Formation to reach the Mitchell River – recognised by the Parliament as a Heritage River – and to cause environmental harm.
21. Second, the Proponent submitted that “no plausible mechanism has been identified by which the Project would materially impact on Gippsland Lakes”.<sup>12</sup> MFG disagrees. As set out above, there is remaining uncertainty about nutrient flow into the Mitchell River. Moreover, there has been no modelling for dam failure (including for the Perry Gully which is to be backfilled with caked tailings).
22. In response to the IAC’s question regarding to what extent Project risk planning has considered the consequence of a catastrophic dam wall failure, the Proponent recently advised that preliminary 2-D modelling was undertaken for the water storage dam as part of an analysis of the consequences of the failure of the Tailings Storage Facility (TSF), but that modelling of other water dams across the site has otherwise not been undertaken. Moreover, “dam break analysis has not been undertaken for the catchment storage dams”.<sup>13</sup>
23. Third, the Proponent failed to respond to MFG’s concern that the amount of flocculant to be used has still not been quantified, in which case it is not possible to assess the risks to groundwater.<sup>14</sup>
24. In response to the Proponent’s submission on spring fed dams, that there is “no persuasive evidence before the IAC of the existence of any spring fed dams in the area”,<sup>15</sup> MFG requests that the IAC rely upon the expertise of local farmers who have reported their reliance on spring fed dams throughout years of drought.<sup>16</sup>

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<sup>12</sup> Part C Submissions of Kalbar Operations Pty Ltd (20 July 2021) ([Tabled Document 698](#)) 41 [144].

<sup>13</sup> Technical Note 31: Response to IAC’s Third RFI on dam construction ([Tabled Document 500](#)) 3.

<sup>14</sup> See Part B Submission of MFG (3 June 2021) ([Tabled Document 451](#)) 25 [119].

<sup>15</sup> Part C Submissions of Kalbar Operations Pty Ltd (20 July 2021) ([Tabled Document 698](#)) 44 [158].

<sup>16</sup> See: Video presented by Submitter 812 ([Tabled Document 635](#)).

25. In response to the Proponent’s acknowledgement that “there is uncertainty over the location of the borefield”,<sup>17</sup> MFG makes the further submission that the alternative borefield location (to the south-west of the nominated infrastructure area) is an area that has not been the subject of assessment through the EES or Inquiry process. Accordingly, the IAC is not in a position to make findings on whether acceptable environmental outcomes can be achieved with respect to that specific location.

### *C.2 Biodiversity*

26. In response to the Proponent’s submissions on offsetting, Mr Kern’s evidence has been misconstrued.<sup>18</sup> Mr Kern gave evidence that he was confident that offsets could be secured *now*, but he did not have that same confidence if offsets were secured in a staged manner. Mr Kern stated in his evidence in chief:

It’s legally possible to offset in stages, but it is ill-advised not to have all the offsets for the entire operation obtained at the beginning of the project. The reason I say that is we do have some certainty that a lot of the credits that they need are present.... They can demonstrate potential offsets are present... But the risk is over the 20 years of the project is that those offsets disappear to other projects.<sup>19</sup>

27. This has consequences for the Proponent’s submission that “provided the offsets can be acquired as Mr Organ and Mr Kern believe they can, the policy objective of ‘no net loss’ will be satisfied”.<sup>20</sup>
28. Regarding the assessment of the significance of native vegetation clearing, the Proponent submitted that there is no “hard cap” on the extent of permissible clearing.<sup>21</sup>
29. In circumstances where 223.58 hectares (more than 550 acres) of native vegetation is slated for removal, along with 834 large trees, almost ten hectares of State significant Forest Red Gum Grassy Woodland ecological community, and 1.74 ha of the nationally significant Gippsland Red Gum Grassy Woodland and Associated Native Grassland critically endangered ecological community, the Proponent’s

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<sup>17</sup> Part C Submissions of Kalbar Operations Pty Ltd (20 July 2021) ([Tabled Document 698](#)) 10.

<sup>18</sup> Ibid 48-50.

<sup>19</sup> Evidence in chief of Mr Lincon Kern (3 June 2021) <<https://www.youtube.com/watch?v=I0oWIUG1iEg>> (around 54:00).

<sup>20</sup> Part C Submissions of Kalbar Operations Pty Ltd (20 July 2021) ([Tabled Document 698](#)) 50 [189].

<sup>21</sup> Ibid [185].

submission is in direct conflict with a key principle of sustainable development and ESD, which is that fundamental consideration should be given to the conservation of biological diversity and ecological integrity.

### *C.3 Radiation*

30. As already noted, the failure to address the transport of radioactive HMC from the Project site to the Port of Geelong is a significant omission. So too, is the failure to address issues arising from the bulk handling of HMC at the Port of Geelong.

31. The Scoping Requirements state:

The description and assessment of effects must not be confined to the immediate area of the proposed action but must also consider the potential of the proposed action to impact... along proposed transportation routes and facilities used for off-site storage of heavy mineral concentrate (emphasis added).<sup>22</sup>

32. The Proponent's Part C Submission notes that the Radiation Assessment Report (**RAR**) identified the need for a transport management plan to address radiological hazards during transport and the need for a radiation monitoring program at the relevant export handling facility,<sup>23</sup> yet no explanation has been forthcoming about why these matters have been dismissed.

33. Turning to the issue of exporting radioactive materials, the Proponent's Part C Submission misinterprets MFG's position.<sup>24</sup>

34. MFG did not submit that the *Environment Protection Biodiversity Conservation Act 1999* (**EPBC Act**) regulates overseas environments, including export conditions. Rather, MFG submits that the issue of exporting potential nuclear source material needs to be considered in the interests of transparency. Moreover, MFG maintains the submission that the Proponent has failed to fully address the legality of exporting nuclear material against the international safeguard requirements. The EES (and updated material) states that "HMC will be exported for secondary processing in mineral separation plants in Asia",<sup>25</sup> yet the Proponent has only provided

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<sup>22</sup> Scoping Requirements, 14.

<sup>23</sup> Part C Submissions of Kalbar Operations Pty Ltd (20 July 2021) ([Tabled Document 698](#)) 125 [423].

<sup>24</sup> Ibid 136-138.

<sup>25</sup> Updated EES Chapter 3: Project Description (8 February 2021) ([Tabled Document 122](#)) 1.

international safeguard information on the export of nuclear material from Australia to China.<sup>26</sup>

#### *C.4 Rehabilitation*

35. The Proponent sought to dismiss Dr Drake’s evidence that new experiments still need to be undertaken to identify and appropriately assess the actual or likely effects of using centrifuged fine tailings as they relate to soil rehabilitation on the basis that Dr Drake had agreed that trials carried out by Dr Loch had established that rehabilitation of the Project area is “feasible”.<sup>27</sup>
36. However, perhaps in recognition of the fact that there is still a significant amount of outstanding work to do in light of the addition of caked tailings to the manufactured subsoils, the Proponent acknowledged that further work will be required to “identify the best approach to rehabilitation, particularly in light of the use of centrifuges”.<sup>28</sup>
37. In the circumstances, MFG is justifiably concerned that the Proponent will be unable to establish safe and stable rehabilitated landforms as required. The Proponent has still not characterised the physical and chemical properties of overburden and topsoil materials to be used in rehabilitation, erosion at the interface of the mine and surrounding landforms is not understood, and the safe and stable rehabilitation of one of the most sensitive landforms within the Project area, the Perry Gully, has not been considered.

#### *C.5 Agriculture / Horticulture*

38. MFG takes issue with the Proponent’s submission that their case “is not that the economic benefits of the mine outweigh those of horticulture in the Lindenow Valley, but rather that both industries can coexist”.<sup>29</sup> It is clear from the submissions made to the IAC that many of the existing agricultural business owners are deeply concerned about the viability of their farms if the Project is ultimately approved.
39. In response to the Proponent’s submissions on consumer perception and “clean green” image, MFG relies upon the information provided by Dr Premier on

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<sup>26</sup> Technical Note 021 ([Tabled Document 334](#)) 4.

<sup>27</sup> Part C Submissions of Kalbar Operations Pty Ltd (20 July 2021) ([Tabled Document 698](#)) 167 [591].

<sup>28</sup> Ibid 167 [592].

<sup>29</sup> Ibid 181 [643].



consumer awareness regarding place of origin. He also provided information on processors. Dr Premier stated:

Processors audit the growers for excessive dust and sand in the product. We also ask our suppliers not to overhead irrigate prior to harvest or to wash their produce at the farm as the wet produce will tend to deteriorate during transport. If our growers cannot control the level of contaminating dust and sand they may well lose their certification.<sup>30</sup>

40. Thus, while the Proponent has addressed consumer awareness, it has not addressed the important market realities for the horticultural industry.

### *C.6 Resource Development and Economics*

41. The Proponent submits that the evaluation objective for resource development and economics “seeks to achieve the ‘best use of available mineral sands resources’, rather than the best use of the land in some broader sense”.<sup>31</sup> MFG submits that this is an overly narrow interpretation, which overlooks the balancing exercise inherent in the administration of the *Mineral Resources (Sustainable Development) Act 1990* (**MRSD Act**).
42. The purpose of the MRSD Act is to encourage economically viable mining in a way that is compatible with the economic, social and environmental objectives of the State and the principles of sustainable development.<sup>32</sup> That is, the MRSD Act facilitates mining, but it does not facilitate mining at all costs.
43. MFG also take issue with the Proponent’s submission that “the material establishes that there is a real prospect that mining of the mineral resource will be economically viable”.<sup>33</sup> The “material” to support this submission is limited to the EES, two technical notes and benchmarking documents comparing in-situ value of various mineral sands resources across Australia.<sup>34</sup> That is, there is no independent evidence to demonstrate project feasibility. Moreover, Mr Campbell – the only expert called to give evidence on economics – gave evidence that the BAEconomics Assessment (which informed the EES) contained no discussion of operating costs, no discussion

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<sup>30</sup> Dr Robert Premier submission on behalf of MFG (7 June 2021) ([Tabled Document 482](#)) 15.

<sup>31</sup> Part C Submissions of Kalbar Operations Pty Ltd (20 July 2021) ([Tabled Document 698](#)) 188 [672].

<sup>32</sup> MRSD Act, ss 1 and 2A.

<sup>33</sup> Part C Submissions of Kalbar Operations Pty Ltd (20 July 2021) ([Tabled Document 698](#)) 190 [679].

<sup>34</sup> See *Ibid* 189-190 [678].

of revenue (other than a ballpark figure), no discussion of the timing of costs and, as a consequence, decision-makers have no idea about the financial strength of the Project.<sup>35</sup>

### *C.7 Social*

44. MFG is concerned that the Proponent has consistently downplayed the negative social impacts of the Project. This much is evident in the final pages of the Proponent's Part C Submission, in which it is stated "to the extent that popular opinion is relevant, it appears comparatively evenly balanced".<sup>36</sup>
45. In response to the Proponent's submissions on sensitive receptors,<sup>37</sup> MFG maintains the position that Kalbar has still not identified all the residences within 3km of the Project area which, in turn, reduces the perceived impact on the people living close to the proposed mine.
46. Regarding the Proponent's submission that there are "significant" portions of the community who do not seek to express opposition to the Project,<sup>38</sup> the Proponent relies upon its "transparent and reviewable" analysis of the submissions made to the EES, which MFG understands to be the series of maps tabled by the Proponent in week 9 of the public hearings.<sup>39</sup>
47. MFG submits that these maps should be given no weight on the basis that the substance of the maps is factually incorrect:
  - a. Some parcels of land are shaded incorrectly;
  - b. Not all sensitive receptors are shown and or have been correctly sited/located;
  - c. It is misleading for the Proponent's land to be shaded as "in support / neutral" on maps purporting to show "information from the written submissions". Inclusion of the Proponent's land – without any demarcation – incorrectly skews the graphic in favour of submitters "in support / neutral".

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<sup>35</sup> See Part B Submission of MFG (3 June 2021) ([Tabled Document 451](#)) 9 [42].

<sup>36</sup> Part C Submissions of Kalbar Operations Pty Ltd (20 July 2021) ([Tabled Document 698](#)) 195 [701].

<sup>37</sup> Ibid 16-19.

<sup>38</sup> Ibid 196.

<sup>39</sup> Maps of Submitters to the EES ([Tabled Document 653](#)).

- d. It is also misleading to conflate “neutral” with “in support”.
  - e. Moreover, the Proponent’s characterisation of landholders who did not make a submission as “neutral” should be rejected. There are many reasons why people do not make submissions to government consultation processes. Some do not want to be involved. Others feel they don’t have the skills – or time – to read an EES and prepare a submission.
48. The Proponent’s reliance on these flawed maps at the final hour reinforces the point that it has no evidence to substantiate its claims that community support for the Project is “evenly balanced”.
49. Ultimately, the Proponent cannot rely upon any independent expert evidence on social impact because it chose not to call any evidence on the topic.
50. Instead, the IAC received 910 written submissions, of which only nine were “in support” of the Project.<sup>40</sup>
51. The IAC has also heard oral submissions from more than 140 submitters, the vast majority of which expressed strong opposition. It is in this context that MFG does support the Proponent’s concession that “members of the community are themselves best placed to articulate the perceived impact of the Project on them and what they value”.<sup>41</sup>

#### D. MITIGATION MEASURES

52. With respect to the Environmental Management Framework (**EMF**), the Scoping Requirements state:

The EMF should describe the baseline environmental conditions to be used to monitor and evaluate the residual environmental effects of the project, as well as the efficacy of applied environmental management and contingency measures.<sup>42</sup>

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<sup>40</sup> EES submissions summary, prepared by the Proponent (12 March 2021) ([Tabled Document 25b](#)) 16.

<sup>41</sup> Part C Submissions of Kalbar Operations Pty Ltd (20 July 2021) ([Tabled Document 698](#)) 196 [705].

<sup>42</sup> Scoping Requirement, 25.

53. It is clear that the EMF does not fulfil the relevant scoping requirement. Baseline environmental conditions have not been established for a number of environmental values (i.e. radionuclides on crops) and environmental management and contingency measures have not been contemplated for a number of significant issues (i.e. dam failure).
54. With regard to the draft approval documents that fall within the EMF, it is not clear why the Proponent has updated some draft documents throughout the public hearings but not others, thereby making it difficult for parties and submitters to provide constructive feedback. For example, the Draft Work Plan has not been updated since March 2021 (prior to the commencement of the public hearings).<sup>43</sup>
55. It is also unclear why certain key approval documents (such as a draft Radiation Waste Management Plan) were not put forward by the Proponent to assist the IAC in its task of advising on relevant conditions, controls and requirements that could form part of the necessary approvals.
56. In response to the Proponent’s submission that “one important aspect of the design of the Project which has not changed is the mining footprint”,<sup>44</sup> MFG is strongly of the view that this position should be reflected in the EMF and all associated draft planning and environmental management documents before the IAC.
57. That is, the community has legitimate concerns about how the expanded Project area contained in the mining licence application has crept its way into the draft planning and environmental management documents before the IAC. The IAC is not in a position to make findings on whether acceptable environmental outcomes can be achieved with respect to the expanded Project area, given the additional 468 ha has not been assessed under the EES.

## E. CONCLUSION

58. MFG submits that the IAC is simply not in a position to draw conclusions or make findings on a number of potentially significant environmental effects.

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<sup>43</sup> See [Tabled Document 197](#) (noting [Tabled Document 197a](#) is a ‘clean copy’ of the same document).

<sup>44</sup> Part C Submissions of Kalbar Operations Pty Ltd (20 July 2021) ([Tabled Document 698](#)) 9 [27].

59. In light of the above, MFG seeks the following findings from the IAC:
- a. The EES and updated material is manifestly inadequate to inform an assessment of the potential environmental effects of the Project.
  - b. To the extent that the environmental effects of the Project are able to be assessed, those effects will be significant and unacceptable, and are unable to be adequately mitigated, having regard to relevant legislation and policy, best practice, and the principles of ecologically sustainable development.

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