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ALEC Submission on the Draft Environmental Impact Statement for the Jervois Base Metal Project

The Arid Lands Environment Centre (ALEC) is central Australia's peak environmental organisation that has been advocating for the protection of nature and ecologically sustainable development of the arid lands since 1980. ALEC regularly engages with mining projects through submissions on draft TOR, EIS and meeting with industry representatives. We recognise that mineral development can provide value to central Australian economies, but that the history of mining in the Northern Territory is marred by regulatory failures and legacies of contamination.

This submission reinforces our primary concerns on the operation and management of resource projects in arid NT to ensure that if the project is granted approval, it provides an equitable benefit to affected stakeholders without causing significant and long-term environmental problems. Our key issues with the Jervois project through the draft EIS are; closure and rehabilitation, water quality and use, regulation, monitoring and compliance.

Water

While the EIS notes that there are limited risks through groundwater drawdown, more information is needed to clarify the potential impact on groundwater dependent ecosystems (GDE). The information on GDEs in arid NT is still developing and is an issue of significant public interest.

The EIS notes that groundwater dependent ecosystems exist along the Unca creek and that some tributaries may be sensitive to large drawdown. More information is needed to reduce the risk to GDEs:

- Is large draw down expected to occur in the groundwater resources of Unca creek and associated tributaries? How will this be monitored?
- What is the anticipated drawdown of groundwater levels in the vicinity of the River Red Gum community identified to be at risk?
- What are the contingency plans to modify pumping regimes if the River Red Gum community is found to be adversely affected by draw down?
- Are their future groundwater dependent ecosystem monitoring strategies proposed to improve the certainty of this risk factor?

Acid mine and metalliferous drainage

Acid and metalliferous mine drainage is an ongoing environmental challenge for many legacy and operating mine sites in the NT. Public trust in mining projects has been undermined by contamination at Redbank, McArthur River and other ongoing rehabilitation projects and is an ongoing drain on public finances. It is therefore important that all necessary precautions are taken to prevent AMD issues from occurring on the Jervois site.

While appendix C-1 suggests there is generally a minimal risk of AMD, it does demonstrate results that suggest possible AMD and problematic leachate. It also includes necessary precautionary measures to prevent contamination. AMD can therefore not be completed discounted as a risk. The contingency measures and precautions should be included as enforceable conditions in the event the project is approved.

Testing at Bellbird has confirmed potential acid forming ore from historic mine materials. The primary Cu ore is also a long-term concern that will require ongoing management. As acid forming ores were identified, especially at Bell Bird, AMD potential should not be discounted entirely and should remain a key monitoring issue.

We acknowledge that KGL are confident that owing to the low sulfur content of the ore, there is a minimal chance of AMD but consider that further testing and stringent monitoring plans must be developed. This will be necessary for public confidence and certainty that there will be no long-term significant impacts from AMD.

Key concerns:

- How will the proponent isolate the historic mine materials from the environment as recommended in appendix C1?
- Final pit voids are likely acid forming and will require ongoing monitoring of water quality. How long has the proponent considered is appropriate to continue monitoring and management of voids following closure?
- The potential impacts on groundwater systems from underground water will need to be assessed, what are the details of this monitoring and who will assess the adequacy of the strategy during operation and post closure?
- What are the long-term monitoring programs to ensure groundwater quality will not be adversely affected by leachate from the TSF?
- What are the contingency plans in the event groundwater quality is found to be adversely impacted by TSF leachate?

Regulation, monitoring and management

Assessment and potential approval of the Jervois project is occurring at a critical juncture of environmental and mining regulatory reform. The framework for monitoring and managing the environmental impacts of mining in the NT is being entirely reviewed and the *Environment Protection Bill* has just completed initial consultation. In addition to new requirements for water licencing under the Water Act, there are a whole host of reforms that would apply to this project. However, there is no clarity on how this will be done, especially concerning the transitional arrangements, of which the EIS is silent.

While we acknowledge the proponent is not able to comment on that process, it is important that this EIS is responsive to responsibilities that are foreseeable within the subsequent regulatory framework. This may mean developing data sets and monitoring strategies that provide the level of information necessary to ensure compliance with the future framework.

- Is there an approximate time period by which the proponent anticipates the project will be regulated under the *Environment Protection Act 2019*?
- Has the proponent undertaken the investigations and studies necessary to apply for water licences as required by the amended *Water Act*?

– Will reform of the framework for regulating the environmental impacts of mining have any bearing on the development of monitoring and management strategies for the project?

Closure and rehabilitation

Appropriate closure and rehabilitation will be the most important indicator of the sustainable legacy of the Jervois project. Considering the ongoing failure of mine rehabilitation in the NT, it is paramount that KLG demonstrates complete responsibility to the integrated, progressive and sustainable closure and rehabilitation of all mining activities on their tenements. While the EIS states that the proponent is fully committed to all their legal obligations, this provides limited assurance considering Mining Management Plans remain confidential, there are no legally enforceable NT standards of mine rehabilitation and the regulatory framework is being entirely reformed.

Our key concerns regarding closure and rehabilitation include:

– As there are no NT Specific closure guidelines, what guidelines are informing the design of the progressive rehabilitation of the project?
– How does the proponent intend to demonstrate ongoing compliance with closure commitments?
– Does the proponent intend to include closure and rehabilitation reporting within the stakeholder engagement and communication plans?
– Considering the risk of commodity fluctuations, and the ongoing issue of perpetual care and maintenance for fledgling projects in the NT, how does the proponent intend to demonstrate the stability of the project as compared to the previous activities on the site?
– How will the proponent complete the project and rehabilitate the site to a greater standard than previous operators?
– What guarantees has the proponent made to the affected communities that this operation is distinct from the previous projects?
– Will the closure and rehabilitation strategy include addressing the historical mine materials and activities?

We do not consider that the closure guidelines noted by the proponent are enough to guarantee sustainable mine closure and rehabilitation. We recommend that the proponent consider and integrate The International Council on Mining and Metals (ICMM) Planning for Integrated Mine Closure guidelines as they are considered international best practice.[1]

Further, we submit that the proponent should strive to backfill all voids, as required by best practice mine rehabilitation. Appropriate backfilling and rehabilitation should not be determined according to the financial capacity of the proponent, but rather as a precondition of any approval and necessary for the sustainable operation of the mine.

Consultation and engagement

ALEC is grateful for the time that KGL has taken to inform us on the design of the project and operational plans on several occasions. Proactive engagement with a broad range of stakeholder is necessary to acquiring any social licence to operate. This EIS submission, however, is but one event in ongoing community engagement and education.

The proponent should continue to maintain open lines of communication as the project progresses.

[1] <https://www.icmm.com/en-gb/publications/mine-closure/planning-for-integrated-mine-closure-toolkit>

This could include:

- Consider plans to formalise on-going public engagement in the event approvals are granted and the project commences.
- Commitment to informing relevant stakeholders in the event modifications are made to the project prior to an assessment decision being made.
- More information on how the proponent intends to maintain regular communication and engagement for relevant and affected stakeholders.
- Note that the EIS process is not necessarily the most effective tool for broad engagement and consultation. An EIS is not the most effective tool for communicating complex scientific risk. Consider providing briefings and summaries to improve access to information and engagement.

Energy use

Despite the Jervois project on its own, potentially producing little greenhouse emissions, cumulatively these operations contribute a significant amount to total electricity emissions of the NT. It is therefore concerning that the proponent has not anticipated the use of solar energy, instead relying on diesel.

The recent announcement of a fully integrated hybrid solar/diesel power plant at the Nova Mine in WA demonstrates that the technological capacity and commercial imperative exists to provide significant solar energy for remote mining operations. We therefore suggest that the proponent investigate the potential use of solar power for total energy demand which will help deliver on their obligations to minimise greenhouse gas emissions and generally improve sustainability of the operations.

Conclusion

The Jervois project can provide economic opportunity to arid NT and isolated communities. However, the equitable and sustainable operation of this mine is only possible provided that the proponent commits to undertaking operations that are properly consistent with ecologically sustainable development. This includes anticipating the need to develop operational plans and ongoing monitoring that will be consistent with updated responsibilities and obligations under a modernised framework of mining and environmental regulation.