KGL RESOURCES

Jervois Base Metal Project

SUPPLEMENT TO THE DRAFT ENVIRONMENTAL IMPACT STATEMENT

Comment Cross References

Stakeholder	Comment No.		Draft EIS Comment	Supp Report Section
NT EPA	1	Proposed action	Clarify what the proposed action is, and therefore the scope of the Proposal to be assessed e.g. does the borefield and water pipeline form part of this proposed action, if so additional information is required (see below).	3.1.1 2.1 4
	2	Proposed action	In line with the requirements of the Terms of Reference (TOR), provide maps (at a suitable scale and resolution) clearly showing: • location of all Proposal components, including mine infrastructure, water supply pipeline, borefield boundary, extraction bores and the access road to each bore • location of all areas to be cleared • location of all existing infrastructure with an identification of which components will be used, removed and left in situ. • location of infrastructure that will remain on site post-closure Provide updated shapefiles of the Proposal components, areas to be cleared, infrastructure and mining activities.	2.1
	3	Mine Access	Include Lucy Creek Access Road 194 on maps e.g. Figure 2-1 (only provided in additional regional features map and in Traffic and Transport Impact Assessment).	2.1
	4	Proposed action	Identify if borrow pits for access road construction materials will be located within the proposed disturbance footprint/clearing area and assess the potential environmental impact. This should include a map of their location, information about extent of clearing required and rehabilitation.	2.1
	5	Borefield	An indicative wider area (approx. 6km long) of the borefield was identified on maps provided by KLG Resources 19/11/18. Provide a precise location of the borefield including approximate extent of borefield, access road and clearing requirements. If available, provide location of extraction bores and access roads to the extraction bores. Describe and map land clearing and trenching requirements.	2.1 2.2.1 4.4

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	6	Proposed action	In response to a clarification request, the Proponent provided a new map of the proposed infrastructure and mining areas that differed to the one provided in the Draft EIS (Figure 2-1). In order to identify the scope of the assessment: a) clarify omission of Proposal components from Draft EIS including: • red area labelled as Bellbird North U/G Pit • 2 pink areas, one located south of plant location and the other labelled 'Future Waste rock' • brown area east of 'Marshal Reward Waste Rock' • area labelled as Rock Face Pit (open pit?) b) confirm all components of the Proposal, including: • Is 'UG Infrastructure' the 'Rock Face Pit' as identified in previous version? • Are areas labelled as 'Waste Stockpile' actually 'Waste Rock Dumps' (as indicated in previous version) or are the Waste Rock Dumps now proposed to be temporary and the waste stockpiles will be relocated elsewhere? Ensure maps are consistent in presentation of all Proposal components.	2.1 3.1.1
	7	Proposed action	Identify if the omissions in Figure 2-1 constitute an alteration to the Proposal. If yes, identify if the environmental significance of the proposed action has changed (clause 14A Environmental Assessment Administrative Procedures).	2.2.2 3.1.1
	8	Proposed action	Specify which flocculant (Table 2-8) will be used. Assess environmental impact of all chemicals added during water treatment and processing, including an assessment of their behaviour and breakdown products in tailings and tailings decant/seepage and potential to contaminate the environment. Polyacrylamide flocculants with more than 0.05% of the neuro-toxin acrylamide monomer should not be used.	3.1.1
	9	Waste Rock	App C-1, pp 10: Specialised testing indicated the presence of iron carbonate….but leach column testing would be required to confirm these preliminary findings. AppC-1, pp 11: .. but understanding the lag times, overall leaching characteristics and final water quality will require additional work. AppC-1, pp 12 & 71: recommendations include: • kinetic leach column and batch water extraction testing • initial S distribution model with additional S testing to infill gaps • geochemical assessment of Bellbird and other key deposits Demonstrate why kinetic leach testing and an S distribution model are not required.	2.2.4 3.1.1 4.6.2 4.6.3

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	10	Waste Rock	Demonstrate why geochemical assessment of the proposed Bellbird open pit is not required.	2.2.4 3.1.1 4.6.2 4.6.3
	11	Waste Rock	Provide an assessment of metalliferous and saline drainage against relevant guidelines.	2.2.4 3.1.1 4.6.2 4.6.3
	12	Proposed Action	The Draft EIS refers to a 970 ha project footprint (section 2.2) and a 389.45 ha area to be cleared (section 4.2.4.1). In response to a clarification request the Proponent provided a map (19/11/18) titled 'disturbance footprint'. Confirm and update if necessary, the area and total hectares to be cleared and explain the differences, if any, between the project footprint and clearing area. This should include detailed map(s) showing the project footprint, the area to be cleared and the proposed infrastructure including water supply pipeline and borefield.	2.1 3.1.1
	13	Proposed Action	Should all of the areas identified as 'disturbance footprint' in the new map provided 19/11/18 be cleared, justify the requirement for the clearing of large areas not used for infrastructure e.g. between TSF and Jervois dam.	2.1 3.1.1
	14	Workforce	Confirm full time equivalent workforce numbers directly employed by the proposal, excluding jobs indirectly created by the Proposal (e.g. servicing industry) during construction and operation.	3.1.1
	15	Land contamination	Potential sources of land contamination include the TSF, ROMs, processing plant and the possible milled ore at the processing plant, pits, underground shafts, prospecting trenches and old plenty river mining camp. Identify the contamination status of the Proposal area, including identification of all contamination sources, contaminants, quantities, concentrations, extent, pathways and the significance and risks of potential impacts to the environment.	4.1.1 4.3.1
	16	Surface Water	Provide Figure 3.1-16 with readable labels.	4.5.4 (Figure 4.5-7)

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	17	Surface Water	Contaminant concentrations in Group A are significantly higher than Group B, particularly TSS and metals. The Group A monitoring sites are located in the mineralised zone within the Project area, which likely contributes to the high concentrations of metals at these monitoring sites. It is possible that runoff from existing mining disturbance in the catchment of Unca Creek and its tributary may have also contributed to the elevated contaminant concentrations observed here. Provide additional information about how the relative contribution of natural and historic mine-related contributions to water contaminant levels will be determined, and how water quality monitoring will robustly demonstrate that there is no additional, unacceptable impact on water quality from proposed activities.	4.5.4
	18	Groundwater	Provide local maps of the Proposal area, including mine site and borefield.	2.1
	19	Groundwater	Figures 3.1-18 to 20, Identify which aquifer the Maperte community utilises and potential impacts from the Proposal on the aquifer and water availability.	4.5.3 Appendix A-4
	20	Flora and Fauna	Identify, describe and map the vegetation communities of the areas to be disturbed for the borefield and water supply pipeline.	4.2.1
	21	Flora and Fauna	Further information about threatened flora species assessment of the borefield and water supply pipeline is required (see 4.1 below).	4.2.1
	22	Flora and Fauna	Figure 3.2-4 is essentially the same as Figure 3.2-2. It would be beneficial to provide a map showing the six broad fauna habitat types rather than vegetation communities with habitat type numbers.	4.1.2
	23	Flora and Fauna	Further information about threatened fauna species assessment of the borefield and water supply pipeline is required (see 4.3 below)	4.4.1
	24	Groundwater	Provide a description of the hydrogeology of the mine site and borefield based on local rather than regional bore data.	4.5.1 Appendix A-4
	25	Archaeological	Archaeological values: borefield and water supply pipeline were not part of the surveys (see 4.1 below).	4.8

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	26	Flora and Fauna	Demonstrate that vegetation description sites (survey sites) are adequately representative of habitat types, in particular of riparian habitats. Figure 4.3-1 shows only 1 vegetation description site in riparian vegetation, which is located in the upper reaches of the southern tributary of Unca Creek. There seem to be no vegetation description sites in ephemeral riparian vegetation further downstream.	3.1.5
	27	Flora and Fauna	Table 3.2-3 only identifies "trees containing large trees with hollows suitable for fauna" as a significant vegetation community. Include riparian vegetation communities, defined in the NT Land Clearing Guidelines as a significant vegetation community, in Table 4.1-3 and Table 3.2-3.	4.2
	28	Flora and Fauna	The water pipeline and borefield were not part of the flora surveys and not part of the overall assessment in the Draft EIS. As a minimum and as per the TOR, undertake a desktop likelihood analysis of the area to be impacted by the borefield and pipeline for potential occurrences of threatened species. If the analysis indicates likely occurrences of threatened, undertake targeted surveys to confirm the occurrence and extent of these values. Assess the significance and risks of the potential impact according to the requirements outlined in the TOR.	4.2.1
	29	PJ Description	Identify the additional land clearing requirements on maps requested in '2. Description of the project'.	2.1
	30	Flora and Fauna/Hydrological Processes	As per the TOR and defined in the NT Land Clearing Guidelines 2010, identify, map and describe all significant and sensitive vegetation types, wetlands and drainage areas impacted by the Proposal. The analysis should include all areas directly and indirectly impacted by the Proposal, including areas to be disturbed for water supply, to be flooded by the upgraded Jervois dam, to be impacted by drawdown, to be impacted by the diversion of Unca Creek and to be impacted downstream by modification of hydrological regimes.	4.2 4.5
	31	Flora and Fauna	As per the TOR, identify and map suitable habitats for threatened flora with known, possible and likely occurrence and identify potential direct and indirect impacts of the Proposal. Each map should be provided at an appropriate scale to clearly demonstrate the local potential impact. Losses due to potential direct and indirect impacts should be provided in hectares and their significance assessed at a local and regional scale.	4.2
	32	Flora and Fauna	Provide a fire history map of the site in relation to the proposed infrastructure and clearing area.	4.2
	33	Flora and Fauna	Terrestrial Environmental Quality - Vegetation clearing as per above	2.1 3.1.6

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	34	Land contamination	As outlined above, identify through field investigations the contamination status of the Proposal area.	4.1.1 4.3.1
	35	Land contamination	Amend Table 4.2-1 with potential pollutant sources from historic mining, TSF leachates/spills, WRD and ROM runoff, and hazardous material spills.	4.3.1
	36	Closure and Rehabilitation	Post-mining, the site will have improved opportunity for alternate uses as the Project proposes to progressively rehabilitate areas disturbed through mining practices and associated activities, therefore much of the legacy of historic mining will be improved. The Jervois Base Metal Project closure and rehabilitation objectives include: • Establishment of safe and stable post-mining land surfaces to support long-term vegetation growth • Returning land to pre-disturbance land use levels (as reasonably practical); and • Preparing site suitability to future leaseholders. Further demonstrate how the legacy of historic mining will be improved. This should include identification of the terrestrial environmental quality (e.g. contamination and erosion status) before commencement of the Proposal and to be achieved after closure based on proposed rehabilitation and closure criteria.	3.1.6 4.3
	37	Closure and Rehabilitation	As per the TOR, identify contingency measures to be implemented in the event that monitoring demonstrates that rehabilitation closure objectives are not met.	4.3
	38	Flora and Fauna	Demonstrate that trapping sites are adequately representative of habitat types, in particular of riparian habitats. Figure 4.3-1 shows only 1 trapping site in riparian vegetation below Jervois Dam (J03), which is a permanently wet site. There seem to be no trapping sites in ephemeral riparian vegetation, which is potential habitat for threatened species.	3.1.7
	39	Flora and Fauna	Figure 4.3-2 is essentially the same as Figure 3.2-2. It would be beneficial to provide a map of the six broad habitat types.	4.4
	40	Flora and Fauna	Table 4.3-1 would benefit from a numbering of the broad habitat types as these numbers are referenced later in the text.	4.4
	41	Flora and Fauna	Assess potential impacts and risks to the Grey Falcon (Falco hypoleucos) (Vulnerable, TPWC Act), and describe mitigation measures if appropriate.	4.4
	42	Flora and Fauna/GDE	Hydrology: Area of riparian / GDE habitat lost due to groundwater drawdown not identified.	3.1.7

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	43	Flora and Fauna	Identify if the diverted Unca Creek will be rehabilitated (not in Mine Rehabilitation and Closure Plan). If not rehabilitated, identify how this may impact habitat quality and connectivity.	3.1.7
	44	Flora and Fauna	The water pipeline and borefield were not part of the fauna surveys and not part of the overall assessment in the Draft EIS. As a minimum and as per the TOR, undertake a desktop likelihood analysis of the area to be impacted by the borefield and pipeline for potential occurrences of threatened species. If the analysis indicates likely occurrences of threatened, undertake targeted surveys to confirm the occurrence and extent of these values. Assess the significance and risks of the potential impact according to the requirements outlined in the TOR. Identify and provide details of trenching requirements.	4.4
	45	Groundwater	Verify the Georgina Basin groundwater model with local bore data. Based on the verified model, identify if water demand and water abstraction volumes can be met, and predict local and regional drawdown (including Maperte) and other impacts to groundwater hydrology. Provide uncertainties and level of confidence of the model.	4.5.3 Appendix A-4
	46	Groundwater	Provide location and depth of bores used for groundwater modelling at the mine site and borefield area.	4.5.1 Appendix A-4
	47	Groundwater	Provide an independent peer review to assess adequacy of modelling, extent of drawdown and risks to local groundwater resources from groundwater leaking into pits and underground workings.	Appendix B-1
	48	Groundwater	Provide a peer reviewed monitoring program capable of monitoring direct and indirect impacts of the Proposal on groundwater hydrology at the mine site, the water extraction site and regional groundwater users during operation and after closure. The monitoring programs should be based on robust pre-mining baseline data and monitoring data should be used to improve model predictions and levels of confidence.	Appendix B-1
	49	Surface Water	Demonstrate structural integrity and functionality of the diversion during operation and after closure, including details of the diversion design, scour protection measures and catch drains.	4.5.3 Appendix A-3
	50	Surface Water	Provide a risk assessment and worst-case scenario of failure of the diversion and of Jervois Dam during operations and after closure.	4.5.3 Appendix A-3
	51	Surface Water	Provide modelled predictions for flood levels, velocities and increases in peak flood levels for 1 in 100 flood events for closure conditions.	4.5.3 Appendix A-3

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	52	Groundwater	Provide a peer reviewed monitoring program capable of monitoring direct and indirect impacts of the Proposal on groundwater quality at the mine site, the water extraction site and regional groundwater users during operation and after closure. The monitoring program should be based on robust pre-mining baseline data.	Appendix B-1
	53	Surface Water	Provide a peer reviewed monitoring program capable of monitoring direct and indirect impacts of the Proposal on surface water quality at the mine site during operation and after closure. Pre-mining baseline data should establish impacts from historic mining and natural background conditions (see 3.1.5.5).	Appendix B-2
	54	Surface Water	Identify the expected water quality of process water and requirements for lining of the process water dam (mine water dam on updated Figure 2-1).	4.5.3 Appendix A-3
	55	Surface Water	Identify the expected water quality of runoff from waste rock dumps, ROM pads etc. and the requirement for lining of the associated sediment dams.	4.5.3 Appendix A-3
	56	Air	Demonstrate suitability of the locations of the two air monitoring gauge sites and why monitoring of dust emissions of the southern mining activities is not required.	3.1.10
	57	Air	Include quantification of greenhouse gas emissions from land clearing.	4.7.1
	58	Air	The Proponent is encouraged to reduce greenhouse gas emissions from energy production, for example through the use of renewable energy sources.	3.1.10
	59	Archaeological	The water pipeline and borefield were not part of the archaeological surveys and not part of the overall assessment in the Draft EIS. As a minimum and as per the TOR, undertake a desktop likelihood analysis of the area to be impacted by the borefield and pipeline for potential occurrences of archaeological values. If the analysis indicates likely occurrences, undertake targeted surveys. Assess the significance and risks of the potential impact according to the requirements outlined in the TOR.	4.8
	60	Consultation	Demonstrate that all relevant stakeholders have been and will be adequately consulted during all stages of the Proposal.	3.1.11
	61	Consultation	Provide issues raised and outcomes of stakeholder consultations to date.	3.1.11
	62	Consultation	Demonstrate how an agreement on a post-mining land use and landform will be developed.	3.1.11

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	63	Consultation	Provide commitments about how KGL will inform the public and relevant stakeholders about the mine's ongoing environmental management performance.	3.1.11
	64	Cultural impacts	Provide commitments to allow Traditional Owners reasonable access to all cultural and significant sites on the mineral leases and borefield.	3.1.11
	65	Legacy mine	Demonstrate how the timely development of premature closure plans will be achieved, especially if the mine will close at short notice.	3.1.11
	66	Legacy mine	Identify the Proponent's requirements for rehabilitation of historic mining infrastructure and contamination.	3.1.11
Department of Tourism and Culture	67	Traffic Impact	The Traffic Management Plan and the Draft EIS do not provide information on the cumulative safety risks to travellers on the Plenty Highway from the interaction between the increased traffic on the Plenty Highway due to large mining vehicles and the proposed road works to upgrade the Highway.	3.2
	68	Traffic Impact	The impact of increased numbers of trucks on the overall road condition and other road users is also of interest, as well as impacts of increased dust from mine traffic on tourist locations such as Gemtree Caravan Park.	3.2
	69		The proposed development has no direct impact on any of the parks and reserves managed by the Department of Tourism and Culture, and therefore we have no comment.	
	70		Heritage Branch can confirm that all heritage and archaeological issues have been adequately addressed for the project. An archaeological assessment and survey have been conducted and a Heritage Management Plan developed, which indicates that there are no highly significant heritage or archaeological sites within the project area. Heritage Branch considers that there are no further heritage or archaeological issues associated with this EIS.	
Aboriginal Area Protection Authority	71	Sacred Site Protection and Heritage Protection	The Aboriginal Areas Protection Authority advised that Authority Certificate C2016/115 was issued to Kentor Minerals (NT) Pty Ltd, a subsidiary of KGL Resources Pty Ltd. The company has to comply with all conditions on the Authority Certificate.	3.3

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Department of Health, Environmental Health Branch	72	Health and safety	In regards to the accommodation village, catering facilities, provision of potable water and wastewater management systems the proponent must comply with the Department of Health's requirements for mining and construction camps as detailed at https://nt.gov.au/property/building-and-development/health-requirementsmining-construction-projects	3.4.1
Department of Health, Medical Entomology	73	Health and safety	Table 4.8-3 Potential Human Health and Safety Impacts and Controls – Serious animal bites There is the potential for potential disease carrying mosquitoes to affect mine personnel, particularly after major flooding events/above average rainfall. The NT Department of Health-Medical Entomology unit will usually issue a media release for Central Australia when there is a likelihood of elevated mosquito borne disease risk. The media alerts would also apply to the mine site, if residual surface ponding (i.e. > 5 days) is evident within a few kilometres of the mine after heavy rainfall.	3.4.2
	74	Health and safety	There is also the potential for the mine site to create mosquito breeding sites in areas of residual shallow ponding not affected by copper water. The Medical Entomology guideline 'Guidelines for preventing mosquito breeding sites associated with mining sites' provides information on minimising the potential to create new mosquito breeding sites.	3.4.2
Department of the Chief Minister	75	Social Impact	The SIMP states it is intended to be a standalone document, however in its current state (as part of the Environmental Management Plan – a 356 page document), it is not easily accessible to community and stakeholders. It is recommended the proponent consider having the SIMP in a community-friendly format, particularly for it to be communicated to the local community of Bonya.	3.6.1
	76	Social Impact	On pp.5-6 it states 'the SIMP assumes' four dot points that highlight aspects important to the success of implementing the SIMP such as ongoing community input, monitoring and evaluation, reporting and management being held accountable for the social performance. It is recommended this be 'committed to' by the proponent, rather than 'assumed'.	3.6.1
	77	Social Impact	DCM acknowledges the initiative by the proponent to ban alcohol on site (p.11 SIMP) as a result of community consultation and its MoU with the Bonya community. This comment is stand alone in the SIMP.	3.6.1

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	78	Social Impact	Alcohol and its consumption is mentioned later in the SIMP. It is suggested to have all alcohol related matters linked to the worker code of conduct (committed to on p.20 regarding alcohol consumption on site). This would more comprehensively tie together the ban of alcohol being not only consumed on site, but consumed at the nearest point of sale (Gemtree) and risks of drink driving or bringing alcohol into the community (outside of the site's restricted zone).	3.6.1
	79	Social Impact	Number #22 of the risk and opportunity register – it is suggested the proponent connect with DTBI regarding aligning the IPP and Territory Benefits Policy for local content and employment opportunities	3.6.1
	80	Social Impact	Number #29 – DCM notes "Mental health issues for workers" is rated low. DCM suggest the indicator of selfharm incidence and mitigation of good FIFO rosters could be further examined by proponent. The incidence of mental health issues with FIFO staff is typically and relatively high and it would be suggested the proponent look into other management and mitigation measures to ensure this indicator is maintained as low by ensuring staff wellbeing through measures such as access to communication (phone/internet/connection to family) and counselling services.	3.6.1
	81	Social Impact	Number #30 – 'Reduce interaction of FIFO workers with locals (straight to bus or plane) may not be conducive to social cohesion and building social connections/employment and education profile in the community. It is suggested this mitigation method be revisited so that the proponent work with the community, rather than isolating its workforce from it. Number 30 could also be seen to contradict #37 'reduced enjoyment of human rights through racism, inequitable work practices…" etc.	3.6.1
	82	Social Impact	Numbers #38 and #39 – Cumulative impacts of five other projects in the region – an additional enhancement measure for this is for the proponent to work with the Regional Economic Development Committee (REDC), mentioned previously in the SIMP, to ensure best outcomes for their cumulative impacts in the region	3.6.1
	83	Social Impact	On pp.25-26 of the SIMP a commitments register is noted for the proponent. It is recommended the entire SIMP be a commitment register (some items are lost from this shorter register such as some SIMP measures that are mentioned as part of the MoU, Code of Conduct, cross cultural training etc.).	3.6.1

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	84	Economic Impact	The EIS notes that the project has the potential to offer employment and training to currently unemployed local residents and local suppliers and services in the area. However, Section 5.4.8.2 of the Environment Management Plan (EMP) notes there is community concern that the proponent may not be able to meet the expectations of local Indigenous job creation and employment requirements due to lack of required/work-ready skills.	3.6.2
	85	Economic Impact	The proponent plans to develop and implement training and employment plans that are culturally appropriate and include realistic expectations for potential employees in partnership with relevant agencies, which DCM agrees must be delivered.	
	86	Economic Impact	The EIS raises a concern about the loss of local staff to the project and difficulty in replacing staff from local existing businesses. DCM acknowledges that the proponent plans to mitigate this risk through joint training initiatives and again agrees that these must be delivered.	
	87	Economic Impact	An increase in mine-related traffic and increased road safety risks are expected to have a negative impact on tourism, the pastoral industry and other road users. There is also concern for potential cumulative impacts from the 5 major projects in the region.	3.6.2
	88	Economic Impact	DCM acknowledges that the proponent plans to mitigate road safety risks through the Traffic Management Plan, procedures and bus driver guidelines to minimise negative impact and would like to see this committed to by the proponent.	3.6.2
	89	Environmental Impact	The Environment Management Plan notes that impact to water resources is of high concern. DCM suggests that the proponent ensure that these risks are mitigated and negative impacts are minimised.	3.6.3
	90	GHG	DCM acknowledges that the proponent is considering the possibility of using solar PV in combination with diesel fuel for its power supply, and suggests that where greenhouse gas emissions reduction is not possible, options for carbon offsets be considered.	3.6.3
Department of Primary Industries and Resources	91	Waste	The draft EIS has not adequately demonstrated that the waste classification system is sufficiently definitive to accurately determine the relative volumes of the various classes of waste that will be generated. Therefore, the viability of the management methods proposed for waste rock, tailings, surface water and groundwater cannot be verified.	4.6.2

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	92	Waste Rock	Given the interdependencies of the classification system and management methods, the failure of one component may result in the failure of others. For example, if a more detailed waste characterisation indicates a significantly greater volume of potentially acid-forming (PAF) waste and therefore a lesser volume of non-acid-forming (NAF) waste this would have important implications as to whether the nonbenign waste will fit back into underground mining voids and whether PAF can be stored under a water cover. This would also apply to the availability of suitable cover material for the tailings storage facilities or waste rock dumps. The proponent does not necessarily need to acquire more characterisation data but rather undertake a more detailed analysis of the data.	4.6.2
	93	TSF construction material	Evidence that sufficient material with the appropriate geotechnical and geochemical suitability for construction of a stable and non-polluting tailings storage facility (TSF) should be included in the Supplement to the draft EIS.	2.2.3 3.7.2 4.6.2
	94	Groundwater	The information provided in the groundwater section forecasts 200 years into the future and it is unclear if drawdown impacts are expected to continue beyond this timeframe. The groundwater section of the draft EIS indicates the pits will act as sinks beyond this period and drawdown could reach existing local communities. This matter should be referred to DENR Water Resources to determine if additional assessment is required to determine impacts on local groundwater supplies.	4.5.3 Appendix A-4
	95	Surface Water	The water management schematic shows the Process Water Dam (PWD) as the source of dust suppression water. Multiple sections of the draft EIS refer to the PWD as potentially receiving contaminated runoff from temporary PAF storages or contaminated groundwater. The quality of any water used for dust suppression on areas that drain away from the project area should meet appropriate site-specific trigger values that are either adopted or derived.	4.5.2 Appendix A-3
	96	ESC	A conceptual waste rock dump (WRD) design with 25-degree slope angles may make the retention of top soil, and the closure criteria of a safe, stable and non-polluting landform, extremely difficult to achieve. Only the best conditions and stable materials would justify slopes approaching 20 degrees. Given the propensity of soils in the area to slake (the soil study indicates a medium erosion risk in the area), and the steep slopes proposed, the proponent should demonstrate how this WRD design is likely to remain stable.	3.7.5

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	97	ESC	When developing the final Erosion and Sediment Control (ESC) Plan the proponent should ensure that erosion and sediment management approaches, and planned control structures, are appropriately designed for an arid zone climate and physical environmental conditions.	3.7.5
Department of Environment, Natural Resources and Environmental Authorisations	98	Regulatory	Based upon the information provided in the draft EIS and under current legislation, the Project does not appear to trigger a requirement for an Environment Protection Licence (EPL) or an Environment Protection Approval (EPA) under the Waste Management and Pollution Control Act (WMPC Act), or a Waste Discharge Licence (WDL) under the Water Act. The Project will be authorised under the Mine Management Act, whereby the WMPC Act and Water Act do not apply (within the lease boundary). Should the proponent, however, commence the Project post implementation of the environmental reforms phase 2, our advice is that the proponent should revisit the authorisation requirements of the activity. It is likely that there will be requirements under the new Environment Protection Act pertaining to environmental impacts on a mine site. This may extend to regulating impacts on water and the surrounding environment. At this stage it is not clear how the Act will apply as initial consultation is currently underway to inform the new Bill.	3.8.1
Department of Environment and Natural Resources, Flora and Fauna division	99	Flora and Fauna	Notably, an additional species, Grey Falcon (Falco hypoleucos) (Vulnerable, TPWC Act) has recently been recorded from within 10 km of EL25429, and it should therefore also be included in the EIS, given that it is moderately likely to occur in the area.	4.4
	100	Flora and Fauna	There is uncertainty regarding the potential impacts and risks to fauna from the construction of a pipeline and borefield for water supply. No details have been provided for the borefield and pipeline and therefore the potential impacts and risks of these components cannot be assessed. Further information is required on the pipeline construction methods, duration and length of pipeline trench that would be open if it is to be buried, habitats through which the pipeline would traverse, as well as the proponent's assessment of impacts and risks to fauna due to pipeline construction and establishment of the borefield.	2.2.1 4.4.

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	101	Flora and Fauna	The proponent devised a suite of management measures that, if fully implemented, should avoid or mitigate most of the identified environmental impacts and risks. Generally, the Flora and Fauna Division considers that the proposed management objectives, indicators and targets, and mitigation measures and corrective actions are clear and specific, though further clarification is needed in some areas, including: • the basis for demarcation of exclusion zones and measures that will be taken to retain mature trees during vegetation clearing • the specific measures for 'habitat enhancement elsewhere on the property' as a corrective action for unintentional clearing • the target proposed for exotic flora, that 'There are no infestations of exotic flora in the Project area', which is most likely unachievable and therefore should be revised • the target for change in habitat quality for fauna – 'Fauna survey along Unca Creek detects native species moving through the area', which needs more detail (e.g. appropriate indicator species; rates of fauna use relative to intact sites, etc.) • pipeline trench fauna management procedures.	3.8.2 4.2 4.4
	102	Flora and Fauna	The draft EIS proposes monitoring of four potential impacts on vegetation health. For dust and erosion, regular (monthly) visual inspection for dieback of significant species and vegetation communities located in high risk areas is proposed. For changed hydrology and contamination along Unca Creek, seasonal monitoring is proposed. While, in general terms, the focus of the proposed monitoring program is appropriate, the information provided in the draft EIS is insufficient to assess the likely effectiveness of monitoring for measuring performance against vegetation targets. This also applies to the monitoring of rehabilitation success. Similarly, insufficient detail is provided to determine the likely effectiveness of monitoring for exotic fauna trends. Further, there is no contingency for the management and monitoring of unforeseen impacts (e.g. noise, contamination, etc.) on the Australian Painted Snipe, should this threatened species colonise the site during the lifespan of mine operations.	3.8.2 Appendix C-1

Stakeholder	Comment No.		Draft EIS Comment	Supp Report Section
	103 to 110	Flora and Fauna	It is recommended that information is provided on: • the basis for demarcation of exclusion zones and measures that will be taken to retain mature trees during vegetation clearing • the specific measures for 'habitat enhancement elsewhere on the property' as a voluntary corrective action for unintentional clearing • an alternative to the target proposed for exotic flora, that 'there are no infestations of exotic flora in the Project area', which is most likely unachievable • the target for change in habitat quality for fauna, that 'Fauna survey along Unca Creek detects native species moving through the area', which needs more detail (e.g. appropriate indicator species; rates of fauna use relative to intact sites, etc.) • monitoring programs to enable assessment of the likely effectiveness of monitoring to measure performance against targets for vegetation dieback, rehabilitation success, and exotic fauna trends • contingencies for the management and monitoring of potential impacts on the Australian Painted Snipe (e.g. noise, contamination, etc.) • the potential impacts and risks to fauna from the construction of a proposed water supply pipeline and, specifically, pipeline construction methods, duration and length of pipeline trench that would remain open, habitats through which the pipeline would traverse, and the proponent's assessment of impacts and risks to fauna due to pipeline construction • the impacts and risks to the biological values of the proposed borefield site.	2.1 3.8.2 4.2 4.4 Appendix A-1 Appendix C-1
Department of Environment and Natural Resources, Water Resources Division	111	Groundwater	The draft EIS reports the project will need 2 GL per annum of process water for the 10 year life of the mine sourced from aquifers in Georgina Basin sediments, approximately 8 km north of the mine site. To assess the impact of the proposed extraction from this area of the basin the proponent developed a groundwater model based on the hydrogeological conditions of other parts of the basins which are known to host significant aquifers. The reliability and confidence in the model outputs would be improved by undertaking local monitoring to verify the model.	4.5.1 4.5.3 Appendix A-4

Stakeholder	Comment No.		Draft EIS Comment	Supp Report Section
	112	Groundwater	Further, a groundwater monitoring program (i.e. purpose drilled monitoring holes) or a regional monitoring program should be considered to monitor the impacts (or not) on other groundwater users (e.g. Maperte community) in the region, along with a communication program to update regional groundwater users on the status of groundwater resources as a result of mining activities. The draft EIS should also consider other measures to verify the negligible impacts reported in the draft EIS, for example a schedule for updating the model with new information, detailed monitoring program, contingency planning for unexpected results, and establishment of baseline groundwater data.	4.5.4 Appendix A-4
	113	GDE	The depth to groundwater in the region of the mine apparently exceeds 15 m, therefore the modelling predicts no impact to terrestrial groundwater dependent ecosystems. However, there is a possibility of stygofauna in the Georgina Basin aquifers. The effect of the extraction regime on stygofauna is unknown.	3.8.3 4.4 4.5.3
	114	Surface Water	The risk of pollution, that might arise at the proposed mine, reaching Arthur Creek and Hay River via surface water flows, is considered to be very low. However if this does occur, it could pose a significant risk to nationally significant ground waters of the Great Artesian Basin. All efforts should be made by the proponent to mitigate any possibility of contaminated surface water flows entering the Hay River system through appropriately designed containment infrastructure capable of withholding potentially contaminated waters during extreme weather events.	4.5.3 Appendix A-3

Stakeholder	Comment No.		Draft EIS Comment	Supp Report Section
	115	Licensing and Regulation	In preparation for future application of the Water Act mining operators should ensure: • measures are in place to quantify, record and report monthly the volume of water extracted from surface water or groundwater resources • Groundwater bores are constructed and maintained in accordance with the National Uniform Drillers Committee, Minimum Construction Requirements for Water Bores in Australia • All groundwater bores are registered with DENR and clearly and permanently labelled with a registered bore number • Water meters comply with DENR's Non-Urban water metering policy and Non-Urban water metering code of practice for water extraction licenses • A plan is prepared that demonstrates how and when water will be used over the life of the project. The plan should include elements addressing detailed construction or development schedules relating to water infrastructure requirements (e.g. bores, water supply, distribution or irrigation systems; projected water use (monthly for 10 years); water drainage and wastewater management; a description of the surrounding environment and facilities and the potential impact water extractions and drainage associated with the activity may have on the areas available water resource and other persons entitled to that resource including the environment. • Groundwater and surface water use does not impact on water dependent ecosystems and there are measures in place to monitor for potential impacts. • Activities are conducted in a manner that minimises interference with bed and banks of a waterway.	3.8.3

Stakeholder	Comment No.		Draft EIS Comment	Supp Report Section
Department of Environment and National Resources, Rangelands Division, Land Management Unit	116	ESC	This submission has not been assessed by the Land Management Unit. With regard to erosion and sediment control, for all proposals involving earth-disturbing activities, DENR provides the following advice. • To prevent soil loss from the site and deposition offsite, minimisation of associated risks to water quality and air quality, and to ensure satisfactory stabilisation of the site at completion of works, preparation and implementation of an Erosion and Sediment Control Plan (ESCP) is recommended. The ESCP should: • Be prepared by a suitably qualified and experienced professional in erosion and sediment control planning; and be reviewed and approved by a Certified Professional in Erosion and Sediment Control (CPESC). • Be prepared in accordance with the IECA Best Practice Erosion and Sediment Control Guidelines 2008 (or higher standard). • Be the final environmental management plan to be prepared (as it relies on completion of final design) and be a stand-alone document which contains all necessary information to facilitate its implementation without requiring the user to reference other documents. • Be cross-referenced with other relevant environmental management plans to ensure consistency (e.g. plans relating to Water Management, Stormwater Management, Site Rehabilitation, etc.). • Include details of both temporary and permanent erosion and sediment control methods and treatments to be implemented for all stages of the project (pre, during and post works). • Comprise an over-arching strategic document outlining the principles, practices and methods to be implemented, as well as site-specific dimensioned plans identifying the location of works and prescribed controls; and be accompanied by relevant Standard Drawings and Construction Notes. • Include information regarding proposed timing and staging of works, site manager contact details, maintenance and monitoring requirements, and reporting procedures.	3.8.4
	117	ESC	Implementation of the CPESC-approved ESCP should be regularly monitored by a suitably qualified third party auditor, to the satisfaction of the Consent Authority.	3.8.4

Stakeholder	Comment No.		Draft EIS Comment	Supp Report Section
	118		Information regarding best practice management can be obtained from the following sources: International Erosion Control Association (IECA) Australasia www.austieca.com.au Department of Environment and Natural Resources (DENR) https://nt.gov.au/environment/soil-land-vegetation Department of Infrastructure Planning and Logistics (DIPL) https://transport.nt.gov.au/infrastructure/technicalstandards-guidelines-and-specifications/technicalspecifications/environmental-management Leading Practice Sustainable Development Program for the Mining Industry (Department of Industry, Innovation and Science) http://www.industry.gov.au/resource/Programs/LPSD/Pages/LPSDhandbooks.aspx Society for Ecological Restoration http://www.ser.org/page/SERDocuments	3.8.4
Department of Environment and Natural Resources, Rangelands Division, Weed Management Branch	119	Weeds	Previous comments provided by the Weed Management Branch on the Notice of Intent (Ref: NR2070) and in response to notification of an alteration to the project (Ref: DENR2017/0055) remain relevant and should be referred to.	3.8.5
Department of Environment and Natural Resources, Bushfires NT	120	Bushfire	Bushfires NT has reviewed and assessed the information provided in the draft EIS and make the following comments: • the land to which the project relates to falls within the Alice Springs Fire Management Zone • during periods of a declared fire danger period, no fire shall be lit, with exception of a small fire for cooking or boiling water without a permit to burn issued by a Fire Warden or Fire Control Officer further fire management information or applications for permits to burn can be made to Bushfires NT in Alice Springs by calling (08) 8952 3066.	3.8.6
Department of Infrastructure, Planning and Logistics –	121	Traffic Impact	The Traffic Impact Assessment (TIA) in its current form, does not adequately address the impacts of the project on traffic and infrastructure. There does not appear to be a Traffic Management Plan for construction or operation. This hampers and limits this Departments ability to adequately assess the risks.	3.9.1 Appendix A-9 Appendix C-3

Stakeholder	Comment No.		Draft EIS Comment	Supp Report Section
Transport Civil Services	122	Traffic Impact	The proponent is required to submit its Traffic Impact Assessment (TIA) and a Traffic Management Plan (TMP) in its EIS, in accordance with Part 12 AUSTROADS, Guide to Traffic Management. This is mandatory to ensure the road authority can measure the proponent's acknowledgement of the risks associated with project impacts on NTG Roads, infrastructure and road safety. The TIA is to include details on access, vehicle types, volumes of existing vehicles and increased traffic and other relevant matters, including a risk assessment to reflect how all roads and infrastructure will be affected. This includes impacts on commercial enterprises and tourist attractions and infrastructure with assumptions reflective of existing Department Policy and Guidelines and Australian Standards.	3.9.1 Appendix A-9 Appendix C-3
	123 to 127	Traffic Impact	The concerns with the underlying assumptions that have been applied throughout the TIA include, but are not limited to: • Both Plenty Highway/ Lucy Creek Access & Lucy Creek Access/Mine site Access intersection swept paths for triple road trains has been done with the "Due to very low traffic volumes at the intersection, it is expected that road trains would use the full width of the Plenty Highway & Lucy Creek Access when turning.". This proposal is not safe due to the high speed environment. • Swept Path diagrams at the Stuart Highway/ Plenty Highway intersection for Triple road train need to be provided. • Two accesses proposed to the site from Lucy Creek Access Road. Road Agency Approval process applies for access and road construction. Location of access will need to be assessed for safety and design criteria. • Requirement of acceleration lane to the Stuart Highway (road trains turning from Plenty Highway) is not discussed in the report. This needs detailed consideration and discussion between the proponent and the Department. • Risks to increased tourist and local traffic in the dry season for recreational activities are not identified, nor adequately addressed.	3.9.1 Appendix A-9 Appendix C-3
	128	Traffic Impact	The proponent will need to contact Transport Civil Services to discuss its project proposal in detail to ensure the road authority's concerns are adequately addressed and to clarify the approvals and permit processes that apply to NTG roads. This includes the Stuart Highway, Plenty Highway and Lucy Creek Access Road. The programming of upgrades of sections of the Plenty Highway also needs to be discussed and considered. Transport Civil Services, Corridor Access can be contacted by email: DevRoads.nt@nt.gov.au or telephone Director Corridor Access on (08) 8924 7252.	3.9.1

Stakeholder	Comment No.		Draft EIS Comment	Supp Report Section
Northern Territory Police and Fire Emergency Services	129		The remote location of the operations (outside of our ERA) means that neither the Northern Territory (NT) Emergency Service or NT Fire and Rescue Service have an ability to respond to an emergency in a timely manner.	3.10
	130		Jervois Base Metal will need to develop a detailed emergency management plan based on a recognised risk assessment methodology.	3.10
	131	Traffic Impact	With regards to road crash/response, the NT Fire, Rescue and Emergency Service (NTFRES) crews will respond as required within existing capacity as with any other crash. If the timeliness of that response does not adequately mitigate the risk for Jervois Base Metal then self-funded measures should be implemented.	3.10 Appendix A-9
	132		The NTFRES is happy to advise Jervois Base Metal on current capabilities in the vicinity of their operation to inform their risk assessment. The NT Police Force (NTPF) have met with representatives of the project on a number of occasions to highlight the safety risks as identified by and within the remit of the NTPF. These conversations have been constructive and informative. As a result of these meetings and on reviewing all documents the proposed is supported in principle.	3.1
	133		In relation to the residual impacts on Southern Command, public safety, emergency management and infrastructure, it is noted at page 22 of the Executive Summary that there is information provided on cumulative impacts and projected 'Benefits' including to local economy and region from this and four other major (mining) projects proposed for the Alice Springs and Barkly Region over the next two years. These benefits are accepted however, further advice is required on the scope of these four projects to allow for a full NT police and community cumulative impact assessment to be undertaken to consider, suitability of existing policing footprint, emergency management response capability/needs and broader risks/mitigations.	3.10

Stakeholder	Comment No.		Draft EIS Comment	Supp Report Section
	134	Traffic Impact	The impact assessment is acknowledged – risk levels and residual impact rating applicable to: 1. Worker Code of Behaviour; 2. Road safety initiatives; 3. Road safety public awareness campaign; 4. Traffic Management Plan (TMP); 5. Provision of alternative transport arrangements to and from site; and 6. Workplace health and safety procedures. Further information is requested in relation to 2, 3 and 4 to assess the suitability of same. It is noted the existence of Traffic and Transport Impact Assessment study, actual TMP would be beneficial to determine suitability of mitigations and operationalisation of plans/activities arising from findings in study.	3.10 Appendix A-9
	135	Traffic Impact	In relation to issues of stress on existing road network it is noted in the Traffic and Transport Impact Assessment c-2 at page 13 that the proposed development is expected to generate 22 trips per day during construction and 33 trips per day during operation. Road trains are expected to account for up to eight double road train trips during construction and 20 trips during operation. Haulage is expected to be 150,000 tonnes of material per annum. This traffic flow is of concern particularly in relation to the attributing impacts on road conditions/surface in inclement weather and the resulting serviceability and safety of the road which will still serve as a significant local and tourist atrial road from the NT to Queensland. The recommendation that the proposed development contribute towards the cost of maintenance on the Stuart and Plenty Highway based on increase Equivalent Standard Axles loading associated with the proposed mine is noted. As we are unable to locate any specifics on this commitment, it is difficult to determine the suitability of same and whether this recommendation will sufficiently address the concern noted. Further information in relation to this matter is requested, in particular scope and schedule of works for upgrades to assess compounding impacts for area. Ongoing communication with the NTPF around upgrades to ensure priority is given to areas considered high risk areas.	3.10 Appendix A-9

Stakeholder	Comment No.		Draft EIS Comment	Supp Report Section
	136	Health and safety	Operational activities noted in risk to human health of the workforce and to the Public Appendix C-11, in particular: • Underground and open cut mine activities; • Blasting activities; • Limitations of medical facilities; and • Transportation and handling of dangerous goods. Advice on practical application of, mitigations and response plans around same is required.	3.10
	137	Social Impact	It is noted reference to fly-in-fly-out (FIFO) service – FIFO service typically impact on policing services, similar FIFO models throughout the NT place significant stress on policing services policing the night time entertainment precincts i.e. Darwin during down time while FIFO are in transit from Darwin to their respective residential jurisdictions. Advice regarding application of same is necessity to inform consideration as to the suitability of existing policing footprint in Alice Springs to police the resulting night time pressures particularly in licensed establishments. Note compounding effect of four other unidentified projects occurring in the region at the same time.	3.10
Central Land Council	138	Sacred Site and Heritage Protection	Authority Certificate(s) for this area have been issued by the Aboriginal Areas Protection Authority (AAPA). The CLC acknowledge that KGL Resources has treated 'exclusion zones' protecting sacred sites as sensitive and confidential information. The CLC requests that sacred site protection information remain confidential.	3.11
	139	Sacred Site and Heritage Protection	Heritage information in relation to the location of any Aboriginal archaeological findings should also remain confidential.	3.11
	140	Archaeological	Archaeological sites and artefacts have been identified in relation to the Project area. This material is of cultural interest to the native title holders who wish to be consulted about and to participate in the management of this material. The CLC requests that this is done before a permit is issued to disturb those Aboriginal Archaeological sites identified in the EIS.	3.11

Stakeholder	Comment No.		Draft EIS Comment	Supp Report Section
	141	Groundwater	The EIS (C-7 Groundwater assessment) predicts that the water sourced from dewatering open pits will ultimately be acidic. Clarification is sought as to whether the dewatered groundwater, if acidic, will be neutralised before being used as raw water. The EIS report does not make reference to the type of treatment or the need for gypsum or other sludge disposal management. If left untreated the acidic water cannot be recycled. At the same time treatment may create additional waste that requires disposal. The CLC recommends further detail be included for the management of open pit water and risk mitigation.	4.5.3 Appendix A-3
	142	Groundwater	The EIS modelling for particle tracking shows that there is a risk for particles seeded beneath the south cell of the Tailing Storage Facility to not be captured by the cone of groundwater level depression developed at the end of mining. If the groundwater gradient is not towards the pit-lake (C-6.7.3.2 and figure 7-25 Random walk particle and drawdown contours at the end of LOM year (3650d)) it would travel to the southeast. The recommendation is to move the south cell so that possible seepage does get captured.	4.5.3 Appendix A-4
	143	Surface Water	The EIS surface water assessment (Appendix C-5-3) uses models based on 10 years of mine operation. The CLC recognises that the life of the mine is expected to run for up to 15 years. It is recommended that the water assessment cover the full mine life expectancy for an additional 5 years.	3.11.2
	144	Surface Water	The EIS 6.4 Contaminant Source Study states that groundwater seepage to underground operations (raw water, plant water) will not be suitable for release to the environment. However, section C-5-6.6.2 Underground mine dewatering states that groundwater that seeps into the underground mining operations is expected to be of good quality suitable for supply of raw water demands. These statements seem to contradict each other. The CLC request clarification on this point. Further, the CLC queries whether this water is suitable for dust suppression as listed under 4.3 Underground Dewatering Dam in table C-5-Table B-5. Use of this water for dust suppression may cause spread of metals/metalloids into the natural environment.	4.5.3 Appendix A-3

Stakeholder	Comment No.		Draft EIS Comment	Supp Report Section
	145	Traffic Impact	During both construction and operation phases of the Project the company intends to use the Plenty Highway and Lucy Creek Road for access to the Project Area. The unsealed part of the Highway is the only route between Harts Range and Bonya. This section is also used for travel to communities across the Queensland border. Native title holders are concerned about traffic safety given the increase of heavy vehicles and the current condition of the road. The EIS (C-12 table 5.1) identifies that traffic volumes are slightly larger in the months December through to February than for the rest of the year. There may be increased traffic to communities to see family and participate in important cultural activities during the same time period. Due to the dire temperatures of this season the CLC recommends the risk mitigation strategy for the peak period be reviewed.	3.11.3 Appendix A-9
	146	Traffic Impact	KGL Resources has not suggested any upgrades of the Lucy Creek / Plenty Highway access intersection. The company plans for triple and quad road trains to be used for transport and expect that these will use the full width of the Plenty Highway on left-in and right-out turning. The CLC recommends the company provide clarification on the sight conditions at the intersection and any measures that are proposed to alert approaching drivers.	3.11.3 Appendix A-9
	147	Traffic Impact	The EIS states that mine operations will be scheduled for 47 weeks per year. KGL Resources should clarify when the Project will be operating so that local Aboriginal people can have better understanding of the operation.	3.11.3
	148	Traffic Impact	The EIS (C-3) states that traffic for the Plenty Highway – unsealed section west of Huckitta station is expected to increase by 30% and traffic for the part of the Plenty Highway – between Huckitta Station and Lucy Creek Access will be close to double. Both of these sections were identified to have Crash Scores significantly higher than average. The CLC recommends that KGL Resources raise with the Northern Territory Government that the upgrade of the Plenty Highway needs to be kept high priority beyond the current planning up to year 2021. It is understood that KGL Resources wishes to commence construction of the mine before completion of the current schedule. The CLC recommends that the benefits of sealing the Plenty Highway between Harts Range and the Lucy Creek Intersection are viewed from the Project economics and the safety for workers in general including those from neighbouring communities.	3.11.3 Appendix A-9
	149	Traffic Impact	Native title holders are worried that the increased use of heavy traffic will deteriorate the road quality. The CLC recommends that constructive discussions between KGL Resources, Government and local Aboriginal contractors should be held to guarantee regular and targeted maintenance of the Plenty Highway.	3.11.3

Stakeholder	Comment No.		Draft EIS Comment	Supp Report Section
	150	Flora and Fauna	Appendix C-7 identifies a mature bloodwood and ironwood habitat as providing important landscape structure and habitat features for local fauna such as tree hollows, food and protection. The Project proposes to remove this stand of trees completely to create an evaporation pond. The CLC recommend KGL Resources adjust the footprint of the evaporation pond to exclude the mature bloodwood and ironwood habitat.	3.11.4
	151	Flora and Fauna	In the hills in the south-east there is an unusual community of unburnt Mulga composed of trees around 150 year old. Appendix C-7 recommends that these are retained and protected from impact by mining operations. The CLC support this recommendation and further recommends that work is avoided in the vicinity of the Mulga patch and establish a monitoring program.	3.11.4
	152	Flora and Fauna	The creation of the Reward Pit has a number of concerns. There will be loss of the ecological value of the riparian habitat trees, especially as the long haired rat (Rattus villosissimus), which is listed as Near-Threatened in the TPWC, was found in the vicinity. Further, diverting the water course will impact hydrology and flora in the area. KGL Resources should account for these losses in natural habitats in the planning of an offset.	3.11.4
	153	Flora and Fauna	Appendix C-7 identifies a number of records of Eremophila cordatisepala which is a listed on as a Threatened Species and contributes to the classification of the Jervois area as a Site of Botanical Significance. The EIS notes a particularly important community of this species in the west of the project area, important due to the greater likelihood of successful natural propagation. Rattus villosissimus was also found in this area. The CLC recommends that KGL Resources should undertake protection works to ensure that the area North of Bellbird is not disturbed by development, vehicles, works, or erosion, or polluted at all by dust, toxic water or chemical spills, and establish a monitoring program.	3.11.4
	154	Flora and Fauna	Sauropus rigens, listed as Near Threatened, is found in the rocky slopes around the dam. The Project proposes to undertake works on the dam wall and to expand the size of the dam. These specimens are likely to be lost in this process. KGL may consider including collecting genetic material from these plants before commencing works to be used in rehabilitation works.	3.11.4
	155	Flora and Fauna	The EIS proposes that there will be a compensatory offset at a ratio of 3:1 plus nesting boxes. KGL should clarify on the necessary steps on choosing a location and the timing of creating the offset. The CLC recommends that biodiversity consultations are held with CLC ranger groups or ecologists to determine the best location for these offset areas.	3.11.4

Stakeholder	Comment No.		Draft EIS Comment	Supp Report Section
	156	Flora and Fauna	KGL Resources proposed a 1.2 km radius from the Project area for any further surveys on disturbance predicted in the Noise Impact Assessment (C-3). The CLC queries what the assessment impact and measures are for fauna and on possible migration away from the project area itself.	3.11.4
	157	AMD	The EIS sets out that a smaller part of the potentially acid forming (PAF) material will be selectively handled and isolated in pit or underground at closure. KGL Resources should clarify on where and how the identified PAF will be stored during the period prior to rehabilitation to enable an ongoing management and possibly ongoing mitigation.	4.6.2 Appendix A-5
	158	AMD	The CLC notes that KGL plan to use open pit and underground voids for backfilling of PAF waste. KGL also state that it would be preferable if tailings are also backfilled into the underground voids on closure. KGL should clarify their plans to secure funding for rehabilitation works after the operation ceases and the NTG should ensure sufficient funds are set aside as a security for this purpose because of the potentially toxic nature of some of the waste. KGL should explain more fully how this material will be managed. The CLC is concerned about possible future abandonment of this material. The CLC recommends that staged rehabilitation be considered prior to closure when possible.	4.6.2 4.6.3 Appendix A-5
	159	Employment and Community	The CLC encourages KGL Resources to continue targeting training for 30-40 potential Aboriginal employees from Bonya and 50-80 from the wider Plenty area and the training be linked to direct employment. The CLC recommends that it has an active role in the development of policy to identify and implement KGL's prioritisation of Aboriginal training and employment. In particular, the CLC wishes to ensure this is formulated for the best interests of the native title holder.	3.11.7
	160	Employment and Community	The CLC wishes to question the statement (e.g. C-3) that the Maperte Community has been unoccupied for a number of years. These houses may look empty but that does not mean they are not used from time-to-time. It may also be that native title holders choose to reside more permanently in Maperte in the future. The draft EIS states that Bonya Community has 20 people residing and yet is accommodating up 80 people. This should be seen as representative of the fluctuating population in these remote communities. Former or periodical residents may return to Bonya permanently if there were new opportunities arising locally. This highlights that the scope for local employment may be larger than expected.	3.11.7

Stakeholder	Comment No.		Draft EIS Comment	Supp Report Section
	161	Employment and Community	The EIS states that the Project should look for local contracting employment opportunities. As part of KGL Resources reaching these employment goals the company should consider scoping to employ a small crew from one of the local Aboriginal communities to do regular maintenance of the unsealed part of the Plenty Highway, the intersection and Lucy Creek Road.	3.11.7
	162	Employment and Community	The CLC highlights the fact that medical services are highly sought after in communities. The Bonya clinic is currently visited fortnightly by the nurse from Harts Range. Sharing the necessary 24hr medical services of the mine would be a welcome benefit for the community members. Native title holders also request that KGL seek options to train and employ an Aboriginal nurse or health worker at the proposed shared clinic in the community or at site.	3.11.7
Arid Lands Environment Centre	163	GDE	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.	3.12.1 4.2 4.4 4.5.3
	164	Groundwater	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?	3.12.1 4.2 4.4 4.5.3
	165	Groundwater/GDE	What is the anticipated drawdown of groundwater levels in the vicinity of the River Red Gum community identified to be at risk?	3.12.1 4.2 4.5.3 Appendix A-4
	166	Groundwater/GDE	What are the contingency plans to modify pumping regimes if the River Red Gum community is found to be adversely affected by draw down?	3.12.1 4.2 4.6.3 Appendix A-4
	167	Groundwater/GDE	Are their future groundwater dependent ecosystem monitoring strategies proposed to improve the certainty of this risk factor?	3.12.1 4.5.4 4.6.3 Appendix C-1

Stakeholder	Comment No.		Draft EIS Comment	Supp Report Section
	168	AMD	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.	3.12.2
	169	AMD	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.	4.6.2 4.6.3
	170	AMD	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.	4.6.2 4.6.3
	171	AMD	We acknowledge that KGL are confident that owing to the low sulphur 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.	4.6.2 4.6.3
	172	AMD	How will the proponent isolate the historic mine materials from the environment as recommended in appendix C1?	3.12.2
	173	AMD	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?	4.6.2 4.6.3
	174	AMD	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?	4.5.4 4.6.3
	175	AMD	What are the long-term monitoring programs to ensure groundwater quality will not be adversely affected by leachate from the TSF?	4.5.4 4.6.3
	176	AMD	What are the contingency plans in the event groundwater quality is found to be adversely impacted by TSF leachate?	4.5.4 4.6.3

Stakeholder	Comment No.		Draft EIS Comment	Supp Report Section
	177	Regulatory	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.	3.12.4
	178	Regulatory	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.	3.12.5
	179	Regulatory	Is there an approximate time period by which the proponent anticipates the project will be regulated under the Environment Protection Act 2019?	3.12.4
	180	Regulatory	Has the proponent undertaken the investigations and studies necessary to apply for water licences as required by the amended Water Act?	3.12.4
	181	Regulatory	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?	3.12.4
	182	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.	3.12.5
	183	Closure and Rehabilitation	As there are no NT Specific closure guidelines, what guidelines are informing the design of the progressive rehabilitation of the project?	3.12.5
	184	Closure and Rehabilitation	How does the proponent intend to demonstrate ongoing compliance with closure commitments?	3.12.5

Stakeholder	Comment No.		Draft EIS Comment	Supp Report Section
	185	Closure and Rehabilitation	Does the proponent intend to include closure and rehabilitation reporting within the stakeholder engagement and communication plans?	3.12.5
	186	Closure and Rehabilitation	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?	3.12.5
	187	Closure and Rehabilitation	How will the proponent complete the project and rehabilitate the site to a greater standard than previous operators?	3.12.5
	188	Closure and Rehabilitation	What guarantees has the proponent made to the affected communities that this operation is distinct from the previous projects?	3.12.5
	189	Closure and Rehabilitation	Will the closure and rehabilitation strategy include addressing the historical mine materials and activities?	3.12.5
	190	Closure and Rehabilitation	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.	3.12.5
	191	Closure and Rehabilitation	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.	3.12.5
	192	Consultation	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.	3.12.6
	193	Consultation	Consider plans to formalise on-going public engagement in the event approvals are granted and the project commences.	3.12.6
	194	Consultation	Commitment to informing relevant stakeholders in the event modifications are made to the project prior to an assessment decision being made.	3.12.6

Stakeholder	Comment No.		Draft EIS Comment	Supp Report Section
	195	Consultation	More information on how the proponent intends to maintain regular communication and engagement for relevant and affected stakeholders.	3.12.6
	196	Consultation	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.	3.12.6
	197	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.	3.12.7
	198	Energy use	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.	3.12.7
	199	Regulatory	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.	3.12.8
Tourism Central Australia	200	AMD	The environmental consequences of mining operations have both acute and chronic impacts on vegetation, water, and biological life in surrounding areas. A major concern is Acid Mine Drainage (AMD), caused when metal sulphides are exposed to natural elements. During oxidation sulfuric acid and free heavy metals can contaminate surrounding areas. This has a huge negative impact on the environment, resulting in the inability to sustain vegetation and biological life. During the operational period of the project does KGL commit to continuously improving environmental standards and will KGL provide media releases regarding any positive or negative environmental impacts that arises due to mining operations?	3.13.1 4.6

Stakeholder	Comment No.		Draft EIS Comment	Supp Report Section
	201	Miscellaneous	Due to the publicly perceived negative benefits of the mining industry it is refreshing to know that progressive rehabilitation will be commencing onsite between 2027-2030. To further improve your social standing it would be beneficial to implement a carbon sequestration and/or vegetation rehabilitation program in the Alice Springs region. Can you please note if KGL will be undertaking any additional programs in an effort to support the local environment, and the justification?	3.13.1
	202	Traffic Impact	The Plenty Highway is frequented by tourists and freight vehicles and already places stress on the current infrastructure. Additional heavy weight vehicles will lead to faster degradation of the road and will result in unsafe conditions. Does KGL have any intentions of sealing the Plenty Highway to the Northern Territory border, or maintaining the formed earth road?	3.13.2 Appendix A-9
	203	Miscellaneous	The proposal of a rail corridor from the Jervois Base Metal Project site to the Ghan Railway Line will improve transportation efficiency and provide many economic benefits. It is understandable if you do not wish to share the rail infrastructure with tourists or freight rail carriages, so TCA is proposing the development of a cycle path alongside the Plenty Highway to the Gemtree Caravan Park. This will provide an alternative transportation route for a range of persons working in a variety of industries. Will KGL fund and construct the multiple use cycle path from Stuarts Highway to Gemtree Caravan Park during the two year construction phase of the project site?	3.13.2