

6/8/2020

NT EPA

RE: Finiss Lithium Project BP33 Underground Mine

Thank you for the opportunity for public comment on the referral of the Finiss Lithium Project BP33 Underground Mine. I understand comments are during by 10 August 2020. Please find enclosed details for consideration.

Section/Figure	Comment/Concern	Suggestion
3.1, 3.4.7	WRDs to be 'temporary'.	Please define the length of time these surface WRDs are expected to be on surface.
3.4.6	Drainage from the ROM pad will enter the internal stormwater drainage network and sediment basins that will discharge clean water off-site.	Will water management system treat sediment, hydrocarbons, PAF/NAF and metals?
3.4.7	The WRD will be up to 25 m high on completion of mining.	Has predicted WRD height been discussed with traditional owners?
3.4.8	A Raw Water Dam (RWD) will be constructed to store water for use in dust suppression and to supply the mine site facilities.	Will water treatment be required to minimise the risk of legionella exposure where RWD is to be used in dust suppression in restricted air environments such as underground? What are these treatment methods?
3.4.8	The RWD will be filled by pumping water from the nearby Observation Hill Dam	What is the water quality of the Observation Hill Dam water? Is it within appropriate human contact standards in addition to environmental standards?
3.4.8	A Mine settling dam (MSD) will be constructed to store and treat sediment laden water dewatered from the underground (i.e. groundwater inflows) and/or box-cut (i.e. rainfall)	Hydrocarbon spills and use in underground drilling are notorious. Will the treatment system also capture and separate hydrocarbons?
3.4.8	The preliminary design capacity is 156 ML, based on groundwater flow rates measured by the exploration team during drilling.	Please explain the measurement method to provide confidence in this estimate.
3.4.8	The required capacity will be reassessed following completion of groundwater modelling (expected mid 2020).	Please undertake groundwater modelling and provide confirmation of estimates & assumptions in design structures.
3.4.8	The preliminary design capacity is 156 ML, based on groundwater flow rates measured by the exploration team during drilling.	Is there expected to be a positive or negative net groundwater cycle based on expected inflow from underground against usage requirements?

		Will there be further requirements for water to be used in underground drilling/mining activities in addition to natural inflows?
3.4.9	Internal to the mine site a stormwater drainage network will provide for collection and treatment of water in sediment basins prior to controlled discharge off site or returned to OHD for re-use	Please explain the treatment system at these locations?
3.4.9	The sediment basins will be monitored for sediment load, particularly following the first wet season post construction, and sediment cleaned out as required to prevent risk of downstream sedimentation.	How will Core lithium ensure metals and other contaminants from the WRDs do not enter the clean stormwater system?
3.4.11	The pipeline from the RWD to OHD	How will Core lithium detect leaks or pressure lost in this pipe?
3.6.1	Vegetation debris will be windrowed along the contour and either retained for use in rehabilitation or burnt under a permit from Bushfires NT.	Consider use of vegetation debris for rehabilitation or erosion and sedimentation controls.
3.6.1	General	How will Core ensure protection of fauna from vegetation clearing process?
3.7.3	General	Does Core expect ambient concentrations of diesel particulate matter in the U/G environment to require management of underground fleet to minimise exposure to workers? How will this be managed?
3.11.1	The potential radiation dose from all of the samples tested was well below guidelines for occupational radiation exposure, indicating that these materials are unlikely to pose a risk from radiation exposure	What were the guidelines adopted?
Figure 3-10	General	If additional water is needed U/G it appears water is pumped from OHD. How will this closed water pumped to OHD going to change the chemical nature of OHD? How will Core ensure water quality in OHD will not be impacted and still discharge in accordance with appropriate guidelines or Waste Discharge Licence?
3.13	Water that is excess to the operational requirements will be treated if required and pumped to OHD.	Figure 3-10 does not reflect the treatment. Will water be treated

		prior to or post OHD storage? Are there any other inputs to OHD
3.13	During the wet season, OHD will discharge over the existing dam wall to an ephemeral creek into the Charlotte River.	Is there a designed discharge point in the wall able to cope with flows and not erode? What is the OHD design construction able to cope with (max volume). How will Core ensure that water quality from OHD will meet guidelines or Waste Discharge Licence parameters without active control over volumes discharged? Consider the volume of water able to be discharged into the receiving environment given existing natural loads of contaminants. Consider beneficial use and groundwater dependent ecosystems downstream of discharge point.
3.15	General	Please ensure storage is suitable for wet season conditions and prevents clean rainwater filling bunding capacity.
3.15	General	How does Core plan to transport and dispose of waste hydrocarbons and hazardous substances?
Table 6-1	WATER Aquatic ecosystems	Ensure certainty is obtained through investigations and modelling to determine if the proposal has the potential to impact the environment.
Table 6-1	WATER Hydrological processes	Surface water – no. Consider the volume of water to be discharged resulting from the project into OHD and into the surrounding surface water environments. Can Core be certain about this?
Table 6-1	WATER Hydrological processes	Ensure certainty is obtained through investigations and modelling to determine if the proposal has the potential to impact groundwater levels.
Table 6-1	PEOPLE AND COMMUNITIES Human health The mined material and product is benign and does not contain any components that could pose a health risk to workers or the community	Consider impact to worker health particularly air quality in working environment. Consider diesel particulate matter in ventilation restricted working environments.

		<p>Consider silica in blasted and ventilation air</p> <p>Consider respirable and inhalable dust concentrations from mining activities.</p>
7.7	<p>Subject to effective implementation of these measures, the proposal is considered unlikely to have significant impacts on flora and fauna.</p>	<p>This is a difficult conclusion given detailed controls are not provided in this document, and are to be included in MMP documents.</p>
8.7	<p>The proposal will result in the disturbance of soils and land that will result in localised alteration of surface flow paths and potentially increase erosion risk. These risks are expected to be temporary as the mine closure strategy provides for returning the site to the pre-development landform.</p>	<p>Does Core consider erosion during the proposal may cause erosion and increased sedimentation in local drainage lines and waterways? How will sedimentation impact aquatic invertebrates? Are these considered reversible or negligible?</p>