

WARDLEE PASTORAL CO

ABN 40 406 706 048

Berrilee
TULLAMORE NSW 2874
Phone: 02 6892 7257
Mobile: 0428 927 257
Fax: 02 6892 7257
Email: dessan@activ8.net.au

12 December 2017

Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001
Rose-Anne.Hawkeswood@planning.nsw.gov.au

Dear Ms Hawkeswood,

Submission on the Sunrise Mine Project - Modification No 4

We are landholders adjoining the proposed mine site and chemical plant and object to the Modification. This mine will severely impact our lives. As adjoining landholders we have had no personal discussions with mining management. We are very concerned about the emissions from the chemical plant, as this process (RIP) has never been used in Nickel mining before. The long term affects of the tailings and evaporation ponds on the water table. If contamination occurs it would severely impact on our productive capacity.

Our objection relates to the following:

1. Consultation:

- a. We have had no personal consultation with CleanTeq staff even though we own two properties adjoining the mine.
- b. Not enough hard copies of the modification were made available to the community. The Lachlan Shire, Parkes Shire and Forbes Shires are only open business hours. The majority of the population work these hours. Not all people have a computer, not all people are proficient users of technology and the internet/satellite downloads are pathetic.

2. **Land Values:** With a large chemical plant on our boundary we can assume that our land values will be significantly reduced. Consent conditions as drafted do not provide adequate protection/rules for a

landholder to negotiate a fair buy-out price if one is adversely impacted by noise, dust, or water issues.

3. Air Quality and Emissions:

- a. Emissions will include sulfuric acid mist, sulfur dioxide, sulphur trioxide, nitrogen dioxide and hydrogen sulphide. Dust from blasting and pit operations. Noise from the blasting and pit operations.
- b. The blasting and mining activity will cause noise and dust. Neither of which we have now.
- c. As a nearby landholder we are also concerned about the ore processing technology and whether it has been proven to be environmentally safe. In this regard we seek an assurance from the EPA and independent experts that noise and air quality emissions will be within acceptable limits and that there will be no adverse impacts on human health, livestock and the environment.

4. Transportation:

- a. Hazardous chemicals
 - i. 100 000 tonne/annum of ammonium sulphate
 - ii. 350 000 tonne/annum of sulphur
 - iii. hydrochloric acid
 - iv. 3 000 tonne/annum of sodium hydroxide (caustic soda)
 - v. 50 000 tonne/annum of lime reagents
- b. Emergency response services.
 - i. The EIS fails to take into consideration the possibility of fire emanating from the mine site and spreading to adjoining land.
 - ii. With increased traffic flow, as per Mod 4, there will be 216 to 316 vehicle (including heavy vehicles and hazardous loads) movements per day through Trundle and Fifield to the mine site. If an accident occurs local SES and Rural Fire would be first response. I understand no consultation has been entered into with either of these local groups.
- c. Proposal to haul water from bore fields.
 - i. Route via Henry Parkes Way including North Condobolin Road (approximately 8 km), Bedgerabong Road (approx. 15 km), Noakes Road (approx. 7 km) and Yarrabandai Road (approx. 24 km).
 - ii. No mention of road upgrades for these roads. What size trucks will be used for haulage? How many trucks will need to be used? What is the duration of the transport of water to the mine site?
- d. The modification does not mention upgrades to the Bogan Way between Bogan Gate and Trundle, which will be the route of the haulage of limestone.

5. Groundwater

- a. CleanTeq have failed to recognize commissioned and active bores that could be affected by the seepage from the tailings. Our stock

and domestic bores are registered GW06768, GW050197, GW064728.

- b. Excavation of the open cut pits would result in the intersection of ground water flows in the deepest area of the pits. This could have very grave impacts on stock and domestic bores in the area.

6. Seepage Control

- a. Our concern is that of the long-term permeability of the foundation soils beneath the tailings dams and the evaporation ponds. We believe insufficient testing has been done to indicate the holding ability of the clays in the Tailings Storage Facility and Evaporation Ponds. The Environmental Impact Study originally and in Modification⁴ shows no back up of this e.g. soil tests. If soil testing for **permeability** (not the seismological tests) has been carried out, how many, location and results of same have not been published. **Local Knowledge tells us that this country does not hold water.**
- b. The modeling for seepage of tailings and evaporation ponds water through compacted clay has been done assuming a TDS in liquid of 26 000 mg/L. However the tailings dam will be built in layer up to heights of 30m. The liquids contained in the tailings are high in magnesium, aluminum and calcium sulphates, concentrations of these salts are expected to generally have a concentration of 60 000mg/L. The decanted water from the tailings dam is transferred to the evaporation pond at an average daily rate of 3.2 ML/day. The total dissolved salt concentrations are expected to be between 100 000 and 200 000 mg/L in this pond. Any excess water from this pond is discharged to a surge dam. The modeled salt level in this dam is expected to be at saturation levels of 360 000mg/L. for the life of the project. The chemicals would have a major impact on the breaking down of the clay liner.
- c. As the TSF, evaporation ponds and surge dam cover 394 ha in total we require a guarantee that no seepage into the groundwater will occur.
- d. Mod 4 fails to identify what contaminants eg chromium, arsenic and lead that will be in the seepage from the tailing dam.

- 7. Cleanteq states that in the transport of limestone they will be using 48 tonne payload capacity trucks. They are considering the use of larger trucks with a 90 tonne payload capacity, subject to relevant approvals. There are known trucks with a 90 tonne pay load capacity.

8. Monitoring:

- a. Monitoring. There is to be no off-site monitoring. The mine will be operating 24hr/day. There are likely to be adverse impacts re noise (especially at night), dust, traffic, possibly odour/air quality issues from the chemical processing, water drawdown in bores, night lighting and visuals, water quality for human consumption.
- b. Berrilee house is within 5km of the blasting site, there is to be no monitoring site on this property.

- c. With the toxic emissions (Section 4.6.1 Vol 1, Page 80) eg Sulphur dioxide, Sulphur Trioxide and Hydrogen Sulphide, we are concerned that monitoring of water quality that is caught from run-off after rain and stored in tanks for human consumption has not been addressed.
- d. If the processes and emissions from this mine and chemical plant are to have such a minimal impact on surrounding properties, I would have thought it good policy to provide off site monitoring on surrounding properties to calm landholders fears.

9. Number of Modifications:

- a. The number of modifications and changes in plans is very confusing and not easy to follow, with related sections spread between the two volumes and numerous appendices. Model 5 was released before Model 4, which makes one wonder if the plan **is** to confuse. The original EIS was much easier to comprehend.
- b. I would ask that when they get it right can we have one readable document.

10. Modelling:

- a. Modeling is not a fail safe method of predicting outcomes. The modeling for the extraction of Nickel Cobalt for the Murrin Murrin Nickel Cobalt mine in Western Australia proved to be inaccurate and the chemical plant had many problems in the start up phase. A lot of the data used to in the modeling predictions come from areas far removed from here.
- b. Appendix B 4.2 Long term noise monitoring from 5 December 2016 to 15 December 2016. If this is long term what is short term?

11. Not in Mod4

- a. Proposed 40km 66,000 KVA electricity line from Trundle to the mine site.

Thank you for considering my concerns.

Yours faithfully

Des Ward
Wardlee Pastoral Co