Hillside Mining Lease Proposal Response Nov 2013

Mr Mark Howe
DIMITRE
GPO box 1671
Adelaide 5001

Dear Mark,

I am a Landowner in the vicinity of the proposed Rex mine.

1 Coastal Land exemption

I have only just become aware of the exemption of EL 4514 relating to coastal reserve protection from mining activities which was granted to Rex Minerals on June 10, 2010.
(ref section 4.1.1.5 MLP)

The release of the Rex Minerals MLP was the first time I have seen reference to this significant exemption.

As EL 4514 extends from the tip of Black Point to Tiddy Widdy beach, there is a large expanse of coastal land that could be impacted by the proposed and future mining activities. The relocation of the Yorke highway will result in significant earthworks with extensive environmental and visual impact to the coastal zone.

As a landowner impacted by this change, I cannot understand how the exemption could be granted without prior consent of affected and adjacent landowners.

Coastal land should remain zoned coastal and not permitted to be annexed under any mining proposal.

Rex must;

- Explain how they managed to be granted the exemption without consulting affected Landowners
- Explain their plans for EL 4514

2 Contamination concerns

2.1 Run off water

Coastal land is located immediately to the east of the proposed mine with multiple creeks feeding into the coastal zone to the east of Section 50 in the vicinity of the rock dump. Figure 5.9-1 is missing on pg 133 detailing size of catchment areas.

The catchment area also includes the locations of the Low Grade and Oxide Dumps.
As per the report, the soil and rock in the dumps is highly saline and acidic with the runoff being toxic to cropping land, rendering cropping land unusable. Figure 6.8.7 on pg 349 shows a retention pond located upstream of the creeks, if this pond loses its integrity or overflows, the coastal property will suffer water damage and contamination.

I have significant concerns on Rex's ability to prevent water run-off from the contaminated rock dumps entering coastal property. There is no detail presented in the MLP on how this will be effectively managed.

Further to this, there is high potential for contaminated water to enter the Gulf – as copper is highly toxic to marine life this could have a significant impact on the health of the Gulf.

If contaminated water enters the Gulf, given the northward flow of gulf water along the western side of the Gulf, and the slow flushing of the upper reaches of the Gulf, the contaminated water could stay in the Gulf in excess of 200 days, with severe detrimental effects on the marine ecology of the upper Gulf St Vincent.[1] Rex has not conducted a scientific study on this issue.

[1] *Kaempf J. An independent assessment of the Hillside Copper Mining proposal. Flinders University. 2013.*

Rex must;

- Provide detail on management of storm water from the mine-site and waste rock dumps
- Provide detail on how they plan to prevent contaminated storm water entering coastal properties.
- Provide detail on how they plan to prevent contaminated storm water entering Gulf St Vincent.
- Conduct a detailed scientific assessment on the impact of polluted storm water and mine water on the ecology of Gulf St Vincent.

Ref pg 546 MLP
"There is also the potential for saline soils to contaminate clean soil. The deep subsoil greater than 5 m are highly saline and acidic, therefore there is the potential for contamination if mixed with clean soil and the potential for leaching of salts from the stockpiled saline soils (WRD). This contamination can impact on the establishment of native vegetation and pastoral crops on progressively rehabilitated sites."

2.2 **Dust contamination**

Land adjacent to the mine will receive dust from the mining and road relocation operations. This will affect farming land within a large radius on the mining activities. Referring to the chart below, a significant portion of the surrounding farmland is predicted to exceed the National Environment Protection Measure (NEPM) 24 hr criterion for PM10 of 50 micrograms per cubic metre. Refer figure 9.2 below.

A recent Australian study has found that exposure to PM10 is associated with an increase risk of out-of-hospital cardiac events even at levels below the NEPM 24hr criteria.[2] In addition Noqueira stated that chronic exposure to PM10 can lead to the development and progression of atherosclerosis and may be a factor in the pathogenesis of hypertension.[3] Consequently, the surrounding farmland will not be liveable with the predicted level dust contamination. Rex have also failed to provide any information about expected PM2.5 concentrations. PM2.5 is associated with greater health risks than PM10.[2]

Even simple tasks such as hanging out the washing on the line will be impossible within at least 5 kilometres of the proposed mine on a windy day.

Rex states that there will only be 3 windy days per year at Hillside where dust will be a significant issue, in reality it would average out to be at least 1 day per week, 52 days per year.

Rex agrees there is potential for radioactive dust contamination with some pockets reaching a concentration of up to 10100 ppm uranium

Referring to *Table 7.4 below*, Appendix 5.6C, pg 22, it states that wind erosion from the waste rock dumps has no controls as it is disturbed monthly, and that control efficiency is zero.
With the large exposed surfaces of the waste rock dumps, without any effective dust control, it appears that the Rex mining facility will be a major dust creator in the area.
Stopping haul trucks on windy days will not reduce the amount of dust emanating from the waste rock dumps.
Monitoring dust will also not stop dust.

Refer *table 7.2*[4] *below,* Rex estimates that approx 2000 tonnes of dust, TSP and PM10 will be released to the environment, both land and marine, every year.

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[2] *Dennekamp M, Akram M, Abramson MJ, Tonkin A, Sim MR, Fridman M, Erbas B. Outdoor Air Pollution as a Trigger for Out-of-hospital Cardiac Arrests. Epidemiology. 2010 Jul; 21(4): 494-500.*

[3] *Noqueira JB. Air pollution and cardiovascular disease. Rev Port Cardiol. 2009 Jun; 28(6):715-33.*

[4] *Pacific Environment Ltd 5970D Rex Minerals Dust and Odour Assessment R3*

Table 7.4: Dust Sources from Mine Operations with Dust Controls and Control Efficiencies

Description of Activity	Description of Dust Control	Control Efficiency	
		CE_{ISP}	CE_{PM10}
Ore loaded into crusher	Water Sprays Enclosure	85%	85%
Unloading of ore at ROM pad	Water sprays on unloading trucks	70%	70%
Unloading of waste rock at waste rock dumps	Water sprays on unloading trucks	70%	70%
Wheel generated dust from transport of copper ore in pit	Salt sprays on road Pit Retention	97%	93%
Wheel generated dust from transport of waste rock in pit	Salt sprays on road Pit Retention	97%	93%
Wheel generated dust from transport of copper ore outside pit	Salt sprays on road	93%	93%
Wheel generated dust from transport of waste rock in pit	Salt sprays on road	93%	93%
Drilling Operations	Pit Retention Fabric Filter for Drilling	99.5%	99.1%
Blasting Operations	Pit Retention	50%	5%
Wind erosion from ROM pad stockpile	Water Sprays Wind Breaks	65%	65%
Wind erosion from copper ore main stockpile	Water Sprays Wind Breaks	65%	65%
Wind erosion from waste rock dumps	No controls (disturbed monthly)	0%	0%
Primary crushing of copper ore	Water Sprays Enclosure	85%	85%
Conveying from Primary crusher to main stockpile	Water Sprays Wind Breaks	65%	65%
Conveying from main stockpile to SAG mill	Water Sprays Enclosure	85%	85%
Use of excavators/shovels/front end loaders within the pit	Pit Retention	50%	5%
Use of excavators/shovels/front end loaders at the ROM pad	Water Sprays	50%	50%
Open pit maintenance (bulldozers)	Pit Retention	50%	5%
ROM pad stockpile maintenance (bulldozers)	Water Sprays	50%	50%
Main stockpile maintenance (bulldozers)	Water Sprays	50%	50%

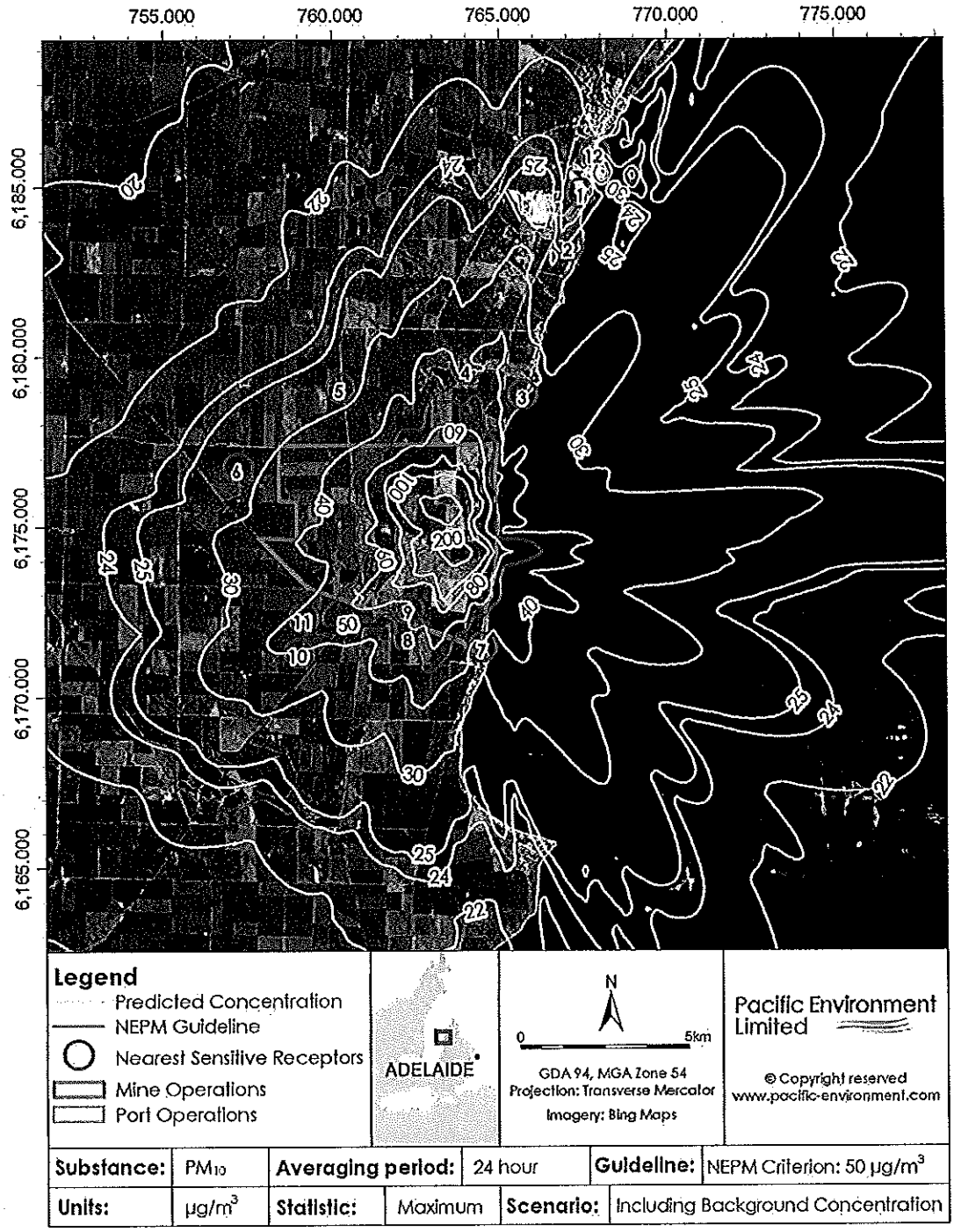


Figure 9.2: Predicted maximum 24-hour PM_{10} Concentration (Mine Operations) – including background concentration, App 5.6 C

Table 7.2: Summary of TSP and PM_{10} Emissions

	Annual TSP Emissions (kg/year)	Annual PM_{10} Emissions (kg/year)
Pit Activities (including haul roads within the pit)	589,378	356,984
Loading and Unloading Activities	68,957	29,026
Wind Erosion from Exposed areas	19,249	9,625
Haul Roads outside of pit	675,032	192,415
Crushing Activities	22,500	9,000
Port Operations	6,111	2,444
TOTAL EMISSIONS	**1,381,227**	**599,494**

Rex must;

- Provide further detail on the proposed dust suppression methods, as the current plans are shallow and ineffective.
- Provide detail on dust impact on health of the local population
- Provide detail on dust impact on cropping yields
- Provide detail on dust impact on cropping contamination – uranium & copper dust on crops, will my produce be saleable?
- Provide detail on livestock contamination – dust in wool affecting wool quality and general health of sheep
- Provide detail on the health impact of uranium and copper dust in rainwater tanks – as we rely on rainwater for house supply, in some cases sole supply, we just cannot stop using rainwater.
- Demonstrate that the general health of personnel living and working on surrounding farmland and residential locations will not be affected.
- Explain how the estimated 2000 tonnes per year of contaminated dust will not affect Gulf St Vincent and the surrounding agricultural land.
- Explain why they have not considered PM2.5 has not been addressed in the MLP.

2.3 **Slurry pipeline leak or rupture**

As the slurry and salt water pipelines pass adjacent to the coast, there is potential that coastal property may be contaminated in the event of a leak or rupture.
Current best practice for slurry lines is above ground construction, with a bunded area underneath the piping to catch any leaks.
Why is Rex proposing to use last century methods putting the environment under excessive risk?

Rex must;

- Demonstrate that their slurry pipeline design is best practice.
- Explain why it has proposed a dated design that is not best practice.
- Explain how it will protect Gulf St Vincent as the Slurry pipeline route traverses coastal sections, with any leakage potentially ending up in the Gulf.

2.4 **Mine site Contamination concerns**

It is stated that the dumps, plant area's and haul roads will be dust suppressed with water from the mine and sea water.
After completion of the mining activities, the entire mine site will not be suitable for agricultural pursuits as the soil will be salt laden and consequently barren.
The Hillside mine area may well resemble Queenstown in Tasmania after mining has completed.

Rex must

- Provide proper and costed rehabilitation plans, not just statements saying that they will abide by EPA guidelines.
- Explain how they will extract the thousands of tonnes of salt, dumped by the water trucks, from the mine site to enable plant growth.
- State the amount of the rehabilitation bond, and explain how it was calculated.
- Explain how the site will be safely managed in the event of premature closure, ie Rex insolvency or unviable operation.
- If the mine is permitted to proceed, participate in annual audits coordinated by independent personnel, on the various control measures. The audits will need to be presented to an independent Community Group for review.

3 Vibration & Flyrock from Blasting

I note that the relocated Coast road is within the >10mm/s zone and within the >120db air overpressure zone.
The 426 metre blast zone also covers the northern part of the relocated Coast road.

Refer app 8.3B
Compliance criteria for ground vibration and air overpressure impacts have been based on guidelines detailed in Australian Standard 2187.2 - 2006. The guidelines are designed to limit human discomfort at a sensitive site based on long term blasting activities and recommend the following:
□ Ground Vibration - 5mm/s for 95% blasts per year, with a 10mm/s maximum unless agreement is reached with the occupier that a higher limit may apply; and
□ Air Overpressure – 115dBL for 95% blasts per year, with a 120dBL maximum unless agreement is reached with the occupier that a higher limit may apply.

Rex must;

- Explain why the relocated coast road is still within the non compliance area in relation to vibration and air over pressure as per Australian Standard 2178.2 – 2006.
- Explain why the relocated Coast road is partly within the 426 metre blast zone.
- Explain how they will prevent flyrock impacting on vehicles traversing the Yorke highway

4 Visual Amenity

Section 5.5, pg 104 details the visual impact of the proposed mine. The Viewshed analysis is fundamentally flawed. The Visual Amenity Assessment does not include the visual changes as viewed from the east. A visual assessment should be done from the eastern aspect, either from the clifftop or from 1000 metres out from the coast to truly reflect the proposed changes to the coastal visual amenity.

4.1 Viewpoint 5 inaccuracies

Viewpoint 5 (appendix 5.5A, pg 43) showing the visualisation from the corner of the Sandy Church road shows the North Eastern Waste Rock Dump as being below the treeline after 15 years. This contradicts table 6.7-1 (pg 296) which states the Eastern WRD is from 20 to 45 metres high. The illustrated viewpoint only shows a dump height of approximately 7 metres, when the real height would be well more than twice the tree height. (tree height approx 8 metres) This could be interpreted as deliberate misinformation by Rex to help sway the public to favour the mining lease proposal. The 170 degree field of view does not give a realistic view due to distortion.

Rex must;

- Redo the viewshed analysis to show the true impact of the mining operations.
- Communicate the revised analysis for all affected parties to review prior to submitting the MLP for approval.

5 Noise

Noise from the mining activities is also a significant concern. As there will not be a waste rock buffers on the South West or North East corners of the pit, mine noise will freely travel in a north eastern and south east direction impacting Rogues Point and residences to the south west.

There is insufficient detail on how this noise issue will be mitigated.

Noise contour plot Map 1.2 (appendix 6.6A) is fundamentally flawed as it does not show the noise generated by the trucks on the North East waste rock dump.

Since the noise analysis has been conducted, there have been significant changes to mine layout as the tailings dam size has been increased and the western rock wall dumps increased in footprint further west over Redding road.

Rex must;

- Redo the noise contour analysis to show the true noise impact of the mining operations.
- Communicate the revised analysis for all affected parties to review prior to submitting the MLP for approval.

6 Borefield and Rex Office's

I could not find any other reference in the MLP regarding the administration and multi purpose buildings location apart from the excerpt below. The exact location of these buildings is not identified, apart from being near the Borefield which is planned to be on coastal property.
As the office buildings are also planned to be on the coastal side of the Yorke highway, they will contravene the Coastal land zone regulations.
As it appears that the reinjection borefield is planned to run through the centre of coastal property (refer figure 8 below, app 5B pg) this will have a significant impact on cropping activities and will reduce available arable land due to the bores, buried pipelines, associated equipment and access tracks.

The capabilities of the injection borefield appear to be based on the performance of 1 well only, WBTH 013 which is bored into the coastal granite on the north eastern side of the proposed pit. Modelling an injection Borefield utilising the data from only 1 well does not lend itself to accurate outputs from the model.

Ref pg 340 MLP

"Rex is also proposing to construct a borefield (Section 6.8.7), administrative and multi-purpose buildings designed to accommodate a number of key functions for Hillside Project operations. This will include site office/administrative buildings including amenities and a carpark to house Rex's administrative personnel. This infrastructure will occupy approximately 2.2 ha. The multi-purpose buildings will be designed to accommodate a number of key functions for Hillside Project operations. It will comprise a reception area, meeting rooms, offices, conference room with training facilities, a kitchen and a common room for Rex personnel and contractors. The proposed location will make it easily accessible and more inviting to the public and thereby ideal for use as visitor information centre.
Road Underpass
It is proposed to construct a road underpass under Yorke Highway for underground access between the administration/visitor buildings and the Hillside mine site. This will ensure safe access to the site on the western side of Yorke Highway (100 km/hr speed limit)."

***5.10 Special Culverts** Pg 89 DAC Development number 544/G017/13 & 544/G018/13*
Special culverts have been provided at the following locations:
Pine Point Road Deviation, ch1730. A 2400 x 1500 RCBC has been provided as a stock crossing to enable the farmer to safely herd his sheep from one side of the road to the other without having to physically cross the road and interact with the traffic. This culvert will also act as a drainage culvert, albeit that it is "oversized" for this function. The area between the road reserve boundary and the culvert headwall will be fenced and gated to keep the sheep within the desired area.
Port Wakefield – Yorketown Road, ch 4200. This portion of the new alignment crosses a deep gully in which two culverts will be installed – one for drainage purposes (a 1200 dia pipe) and the other for vehicular access purposes (a 4200 x 3000 RCBC). The vehicular access culvert will enable Rex Minerals personnel to move between administration buildings located on the eastern side of road and the operational area of the mine, without having to interact with highway traffic.

Rex must;

- Explain how they can construct a 2.2 hectare visitor centre on the eastern side of Yorke Highway, contravening Coastal Land zone regulations.
- How they can plan a borefield based on the performance of only 1 well.
- Explain why the visitor centre placement is not shown on the mining lease proposal

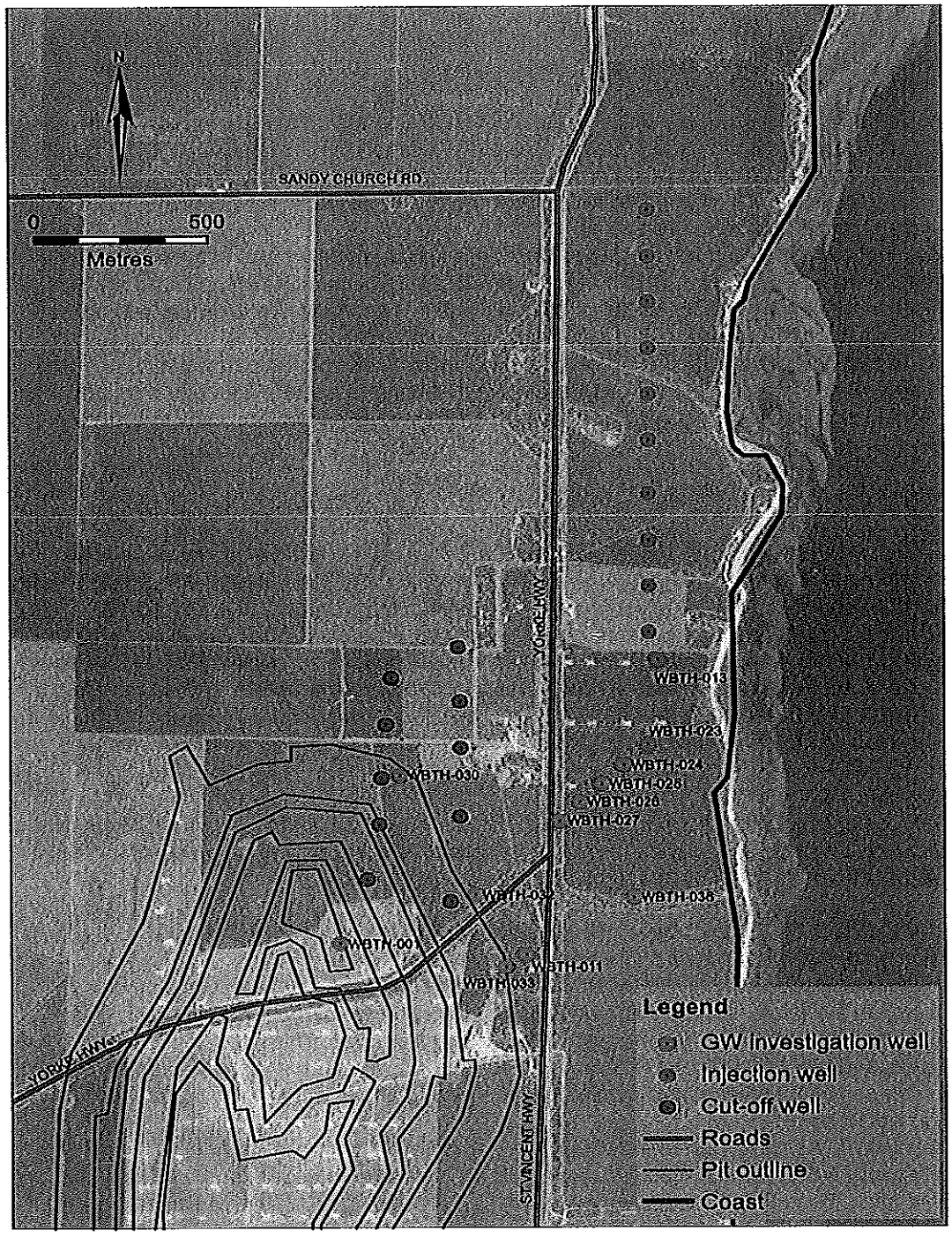


Figure 8: Location of groundwater investigation wells (App 5B, Groundwater Injection Disposal Modelling, pg 13)

7 Hydrology

Rex Mineral's consultant, Mining Plus, has modelled projected water flows into the mine area as well as investigating disposal options.
The flows range from 170 litres per second to 440 litres per second. This equates to between 14688 Metres cubed (kilolitres) per day to 38016 M3/d. *Refer app 5.10A, pg 5 and App 6.5A pg 15.*
The modelling was based on the performance of 22 water wells, of which 11 were drilled in and around the proposed pit area.
Test pumping was conducted for a maximum of less than 24 hrs.

The significant range of flows and lack of accurate information is best described by the following excerpts from the MLP.

App 6.5A pg 9

"All groundwater assessments carried out included drilling to depths not exceeding approximately 200 m, whereas the pit is expected to extend to depths greater than 400 m and the underground operations could occur at depths to nearly 700 m. The relatively shallow depth of assessment is considered a significant constraint to (dewatering) model reliability and confidence."

App 5.10A, pg 11

Drilling depths were planned to be 200 metres. Some wells were completed shallower due to not having the capacity to dispose of the water produced, and two were drilled to 204 metres. All wells were drilled to target zones of structural complexity or areas in which significant intersections of water had been encountered during reverse circulation (RC) drilling.

App 5.10A, pg 61

"It should be noted that the model was developed at an early stage in the evaluation process and is a simple representation of the aquifer system using the information available at the time. Subsequent assessments may provide information that may lead to the model needing to be revised. Pit design and scheduling also effects the model so if there are any significant changes to either of those the model will need to be re run"

App 5.10A Pg 71

The main contribution to the water balance is pit inflows. Any future work to better define the pit inflows will have the most significant effect on the water balance.
It is recommended that wells are constructed at an angle of 600 in locations where significant structures are known to exist but where groundwater assessment to date has not encountered high yielding rock units. This could include areas where weathering has been found in resource drilling to be shallow, where the rocks are siliceous (i.e. unlikely to be significantly weathered) or at locations where structures have been identified that post date major weathering events.
Water investigation wells have been installed to depths of approximately 200 metres. This is significantly shallower than the anticipated pit floor level of approximately 400 metres.
Hydrogeological parameters have been assumed at depths greater than 200 metres. It is recommended that wells be constructed to pit floor depths to enable hydraulic properties to be evaluated from 200 metres to the base of pit. These wells should be inclined at an angle, e.g. 60°.
All wells should be test pumped in the manner described above. Additional long term tests may be carried out in wells that have intersected significant high yielding fracture sets.
Water samples should be collected from all wells installed and analysed as described.
Results of the coastal granites groundwater assessment should be incorporated in the model as appropriate.
The significance of the electromagnetic (EM) anomaly should be investigated further to determine if there is any correlation between the electromagnetic response and groundwater yields.

Water use by the mines 2 dust suppression trucks is estimated to utilise up to 1960 M3/d, however this still leaves from 12700 to 36000 M3 per day to be disposed of. As evaporation has only a minor impact, there will be significant water volumes to dispose of.

The holding pond size is not mentioned, but the 100 ML tails dam seepage storage pond area is, this would only take between 3 to 8 days to fill based on the above figures. The only other

significant disposal options tabled are an injection borefield or disposal into the Gulf, both of which will require extensive filtering and decontaminating to protect the environment.

It appears that water control will be technically and environmentally challenging for Rex and also very expensive – given the cost of moving up to 38 megalitres of water per day.
Water handling may well make the Rex Project economically unviable.

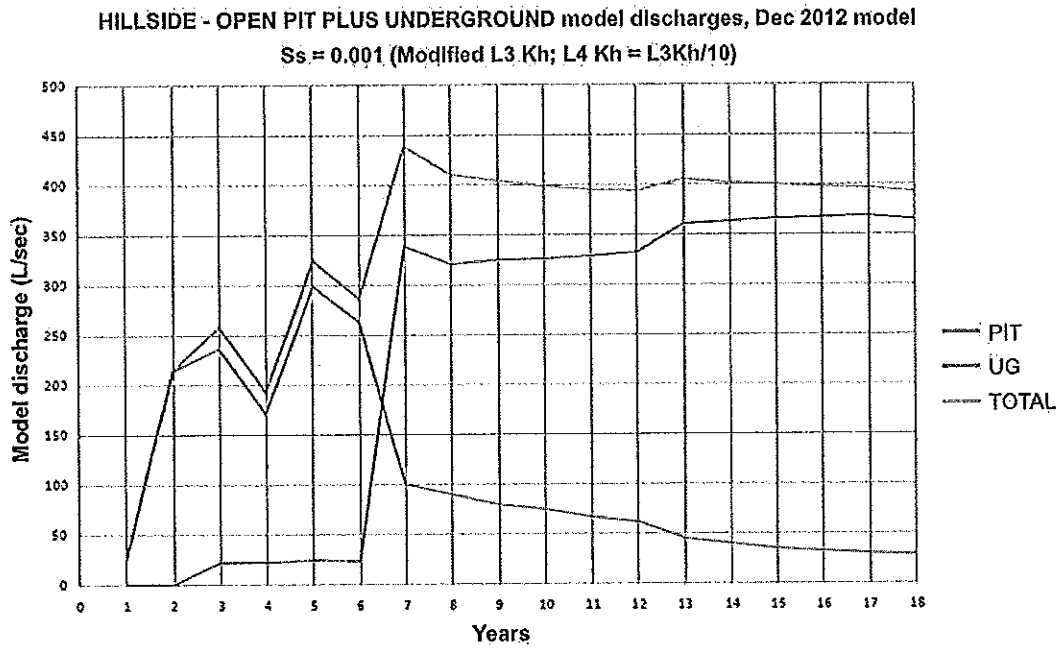
The review "Rex Minerals Hillside Copper Mine project – preliminary independent technical review and comment" clearly identifies a need for a third Party peer review of the groundwater assessment and associated modelling using the *'Australian groundwater modelling guidelines'*, as a reference.

"We recommend that the South Australian Government's assessment and approval bodies consider these key recommendations and defer its decision making processes until such time as such a review (conducted in accordance with appropriately defined terms) is presented by the Proponent"
"ref 11337 ADV081113 ER1F Gilbert & Sutherland Nov 8th, 2013"

App 5.10A pg 5
As contingency, excess water disposal options have been considered and will be implemented if required. They include:
- *Utilisation of in pit bores to allow the pit dewatering volumes to be more consistent year to year;*
- *Temporary storage in the pit during times of peak flow;*
- *Temporary storage in the 100 ML tails dam seepage storage pond area;*
- *Evaporation using mechanical means such as evaporators;*
- *Utilisation of in pit bores that can be used in the summer months to advance dewatering and thus reduce the flows short term in the winter months;*
- *Utilisation of pit perimeter bores to form a cut off bore field between the Gulf St Vincent and the pit with discharge to Gulf St Vincent;*
- *Discharge of excess pit water to the Gulf St Vincent;*
- *Disposal of excess water via an injection bore field; and*
- *Grouting the aquifer to reduce inflows.*

These contingencies should be investigated further in the next stage of the study if required.

Figure 5: Modelled discharges, revised layer 3 Kh, layer 4 Kh = 0.1 revised layer 3 Kh



Rex must;

- Explain how they will handle the significant volumes of water that the mining operations will produce – will they pump it into Gulf St Vincent.
- Explain why they only commissioned water drilling test holes to 200 metres when mining operations were planned down to 700 metres.
- Explain why the test wells were only pumped for less than 24 hrs, when test periods of at least two weeks are required to get an accurate assessment of well performance.
- Explain why some wells were not drilled to planned depth due to the risk of excessive water – how can you accurately calculate water flows if you don't drill to the correct depth?
- Explain why they haven't commissioned another hydrogeology study given the recommendations in the Mining Plus Report as detailed above.
- Provide accurate information on the cost of pumping, treating and disposing of the waste water.
- Explain how they plan to decontaminate and filter the waste water prior to disposal in injection wells or to the Gulf St Vincent.
- Explain why the Government should not defer its decision making process until a peer review is conducted on the Hydrogeology and Groundwater investigations as recommended by the Gilbert & Sutherland technical review. *"ref 11337 ADV081113 ER1F Gilbert & Sutherland Nov 8th, 2013"*

8 Uranium

Refer excerpts from MLP

MLP sect 5.8.2.1 pg 129

"The statutory limit as set by the EPA in South Australia for the management of radioactive materials, requiring a radiation management plan, is 200 ppm uranium. When a cut-off grade of 200 ppm uranium is applied to the total volume of ore and waste from within Hillside, a total of 4.1 Mt of material (ie 0.3% of 1.2 Bt) is present with an average uranium grade of 284 ppm. Planned scheduling of material movements from within the pit will ensure material with elevated uranium concentrations is blended with ore of lower uranium grades so that sufficient dilution occurs on the ROM pad to ensure uranium grades of less than 200 ppm are delivered to the milling circuit. A similar scheduling arrangement will be utilised to ensure the concentration of uranium of material on waste dumps is also diluted such that uranium concentrations do not exceed 200 ppm."

App 5.8 A, section 1.5.4

"Appendix 6 of the main Geochemical Characterisation of Waste Rock report shows the concentration of Uranium detected in each sample. Samples that show elevated Uranium content but not exceeding the threshold concentration of 80 ppm are highlighted in Appendix 6 of the main Waste Rock Characterisation report and reproduced below:"

App 5.8 A, Executive Summary

"Results of the waste rock sampling and analysis indicate a relatively benign waste rock character associated with the Hillside project. For a project of this size, an accurate and detailed understanding of all mine wastes is crucial to minimising the site's potential environmental impact as part of planned mining activities. Based on the results from this study, a second round of sampling and analysis is recommended, with the primary objectives and considerations for this sampling and analysis program outlined below:

1. *Further assessment of any waste rock types deemed to have —uncertain‖ acid producing characteristics from the first round of testing. This includes material whose samples exhibited borderline NAPP values, were under-sampled or which are expected to be significantly represented in the total waste rock inventory.*
2. *More detailed understanding of the variation in the concentration of uranium present throughout the deposit, in order to facilitate appropriate management during the operational phase.*
3. *Testing of some existing samples for presence and character of fibrous materials.*

Where further sampling and analysis is recommended, samples should be geographically and geologically representative of the proposed pit, that will be produced from planned mining engineering work as part of the PFS for the Hillside project."

App 5.8A Executive Summary

"Uranium
Using the National Directory for Radiation Protection (Australian Radiation Protection and Nuclear Safety Agency, 2011), it was determined that material containing over 40 ppmU would be classified as radioactive, and would need to be managed under the RPC Act.
Uranium was identified at varying concentrations in all samples, with little correlation between waste rock type and uranium content. Uranium content may be related to geographic location within the deposit, however this would need to be confirmed through further investigation.
Six (6) samples exceeded the calculated Uranium threshold of 40 ppm. It may be possible to blend material that exceeds the threshold Uranium concentration with lower-concentration material in order to construct a waste rock dump that would be classified as non-radioactive under Schedule 4 of the National Directory for Radiation Protection. In order to design and schedule such a waste rock facility, there is a need to define the schedule for waste rock extraction in terms of its Uranium concentration.

In order to achieve this, the following would be required:

- *An accurate understanding of the distribution of Uranium throughout the deposit*
- *A schedule for waste rock extraction*

Therefore, it is recommended that during the feasibility stage of the project, Rex Minerals undertake an additional waste rock sampling and analysis program, designed to enable mapping of the Uranium concentration throughout the deposit. The current waste rock sampling and analysis program is insufficient for the level of accuracy that would be required.
A key component of the National Directory for Radiation Protection for classification of material as being exempt from control through legislation is the definition of activity concentration. For the purposes of the document, activity concentration of a radionuclide is defined as the —activity per unit mass of the material in which the radionuclide is essentially uniformly distributedll (Australian Radiation Protection and Nuclear Safety Agency, 2011, emphasis added). Therefore, it is of critical importance that waste rock containing Uranium is scheduled and blended so as to satisfy this requirement."

As per the excerpts above, there are 3 figures quoted on the threshold Uranium concentration, 40, 80 and 200 ppm.
I believe the 80 ppm figure is correct, but this shows the poor quality of the MLP with its many contradictions.

Rex must;

- Clarify what is the threshold concentration of Uranium in SA.
- Recalculate the amount of ore and waste rock that exceeds the threshold.
- Communicate the revised analysis for all affected parties including DIMITRE to review prior to submitting the MLP for approval.
- As per the Executive Summary – *"More detailed understanding of the variation in the concentration of uranium present throughout the deposit, in order to facilitate appropriate management during the operational phase."*
  "Therefore, it is recommended that during the feasibility stage of the project, Rex Minerals undertake an additional waste rock sampling and analysis program, designed to enable mapping of the Uranium Concentration throughout the deposit. The current waste rock sampling and analysis program is insufficient for the level of accuracy that would be required."

9 Public Consultation – CCG ineffectiveness

If YP Land Owners Group can address 100 people at Pine Point (only 150 people live there) and can attract 300 to a public meeting in Ardrossan with only 5 days' notice, it would appear that the role of the CCG has failed in both its charters – to educate the public and to address the concerns of the public. At both of these meeting a show of hands proved overwhelming rejection of the proposed mine. The CCG have obviously failed in representing the community's wider interest. 400 people are a larger representation of the community than the 30 people from whom Rex sought opinion and used as the basis of section 7 of the MLP. The survey was presented to the CCG at their 4th meeting when they did not have and indeed still have not been given all the information to be able to make an accurate assessment and therefore respond with more considered answers. The results of the survey have clearly been taken out of context.
Minutes from the CCG meetings have never made available to the broader community.
I believe that REX has failed its responsibility to the Community and have not completed the required Public Consultation process.

Rex must;

- Acknowledge that Section 7 of the MLP is not an accurate assessment of the Communities concerns and based on this alone should provide sufficient grounds for the MLP to be rejected.
- Acknowledge that a new Community Consultative Group is required that genuinely represents the wider Community that will be affected by the proposed mine.
- Ensure that all minutes and information received and generated by the CCG need to be publicly available to enable adequate review.
- Explain why they have withheld relevant information from the CCG.

10 Executive Summary

The current MLP is poorly constructed with many conflicting statements. Many of the consultative reports recommend that further raw data needs to be collected and further studies conducted before their true impact of the Mining Lease Proposal can be accurately assessed.

Refer to the Honorable Tom Koutsantonis, Minister of Mineral Resources and Energy, statement on national radio ABC 891, Monday 21/10/13;
"Our first principal of mining is, do no harm. If the science comes back to me and says this mine is too dangerous or too environmentally hazardous to be allowed, then we won't give them a licence"

We do not believe that the immediate and longer term impact's to the Yorke Peninsula Communities and the environment has been adequately assessed by this MLP, therefore we request that it be rejected as per the Ministers statement.

Regards,

Greg & Janette Germein
[redacted]
Port Clinton SA 5570
[redacted]