Bentel Family Trust

41 Sydney Street, North Perth, WA, 6006

Mobile: +61 420930395

Email: gary.bentel@aapt.net.au

Date: 9 May 2013

To: Alex Van Koersveld (ATC)
John Burgess (Rex Minerals)

From: Dr Gary Bentel

Rex Minerals Hillside Project Pre-Feasibility TSF Design - Independent Review Report

Executive Summary

This preliminary report summarises the review of the conceptual tailings storage facility (TSF) design for the Rex Minerals Hillside Project.

The independent review confirms that the integrated waste landform (IWL) TSF design is suitable for the intended purpose, and that the detailed design and risk management processes to which the project has committed, will be appropriate to ensure that all associated construction, operation and closure risks are managed to the satisfaction of all stakeholders.

The TSF review was carried out at an early stage (pre-feasibility) in order to confirm for the purpose of the mining lease application and for project funding purposes, that the proposed IWLTSF is the appropriate and technically correct option for the associated risks for this particular application.

Sufficient information and detail has been provided in the design documentation for the purposes of a qualitative assessment of the key risk issues.

The design analysis and documentation, which will be completed in the next (final design) phase, will provide the level of detail required for a quantitative analysis of all issues pertaining for regulatory and/or ANCOLD requirements to be carried out.

1 Introduction

1.1 Description of the TSF

Rex Minerals propose to construct and operate the Hillside Project on the east coast of the Yorke Peninsula in South Australia. The resource is located in a predominantly agricultural area approximately 180 km from Adelaide. The site is bounded by the coastline and St Vincent Highway to the east and farm land to the north, south and west. The terrain comprises undulating hills with an overall slope towards the south east.

The proposed IWL TSF design developed by ATCW Williams Pty Ltd (ATC) is described in their reports for the Hillside Project:

1. Conceptual Design - Tailings Storage Facility Options, dated February 2012
2. Integrated Waste Management Tailings Storage Facility Pre-Feasibility Design Report, May 2013.
3. Tailings Dam Pre-feasibility Design – Proposed Modified TSF Design. Letter report dated 6 May 2013.

The life of asset tailings production is estimated at around 190 Mt over a 16 year period. At an assumed in- situ consolidated dry density of 1.5 t/m^3, the required TSF capacity is around 125 million m^3.

The Yorke Peninsula is a region of relatively poor groundwater resource. In general, groundwater is expected to be brackish or saline and low yields. Hydrogeology modelling to analyse and assess the impact of the mining operation on the local and regional groundwater is underway. From the initial modelling it has been assumed that the open pit will form a permanent local sink for local groundwater, including any seepage from the TSF.

The Hillside deposit is located within a folded sequence of metasediments and skarns forming part of the Wallaroo Group (Moonta Subdomain). Intrusions of Meso Proterozoic granitoids are present within the main mineralised area. These intrusions comprise dykes of variable width containing granite and diorite. The primary copper mineralisation is dominated by chalcopyrite with bornite and chalcocite.

Un-mineralised rock and soil materials excavated to expose the mineralised ore in the open pit will be used to construct the zoned embankments which will be raised using the downstream method of construction. The waste rock categorises primarily as acid consuming material (ACM) or non-acid forming (NAF).

The final elevation of the TSF crest is around RL130m. The ground level varies around the perimeter, with a maximum embankment height of approximately 70m relative to the lowest natural ground level around RL60m. The crest is 15m wide. The downstream and upstream slopes have 1:2.5 and 1:2 batter slopes, interspersed by 6m wide berms, resulting in overall downstream and upstream slopes of around 18.4^0 and 20.4^0 respectively.

The tailings will be thickened to a target solids content of 58 % and distributed around the TSF via a spigotted ring main. The process water is saline (seawater), and preliminary testing indicates that the tailings are geochemically benign and not acid generating.

In order to minimise seepage of saline tailings water from the TSF, the clay material in the floor will be ripped and compacted to form an effective basal liner. The upstream face of the TSF embankment will also be sealed by a 6m wide low permeability facing formed from compacted clayey material selected from the un-mineralised overburden materials stripped during exposure of the ore. The low permeability face will be keyed into the compacted foundation, and is separated from the supporting coarse rockfill structural zone by a 6m wide selected and compacted rockfill zone.

Any seepage and incident rainfall percolating into the massive rockfill structural zone will be collected in a system of blanket drains at natural ground level. A blanket drain located in the central valley extends across the width of the TSF, discharging into the decant and seepage collection pond (DSCP) located downstream of the TSF.

Excess supernatant process and storm water will be removed from the TSF using a floating decant pontoon pump accessed via a walkway. The decanted water will be stored temporarily in a collection pond, before it is returned to the processing plant for re-use there.

The use of large quantities of waste rock results effectively in a stable rock waste dump that fully encloses a tailings dam, hence the term IWL. In addition to significantly increased stability during operations, a key objective of the integrated landform approach is the superior long term closure stability of the thick waste rock “skin” (the 70m high embankment is some 415m wide at its base) compared with upstream or centre-line type embankments. At closure the top surface of the TSF will also be covered with a suitable rock protection layer to prevent the release of tailings.

1.2 Level of Design Reviewed

The design reviewed is currently at pre-feasibility stage, where the analysis and assessment detail is limited by the data and information available at the time. As discussed in later sections, the reviewer nevertheless believes that the design is sufficiently progressed to be inform a professional judgement on the suitability of the proposed design for this particular application, and hence for licence application and project financing purposes.

Once the licence application and project financing has been approved, funding will be made available for the progression of the TSF design and analysis to provide the detailed data and information required to substantiate the design to the extent required by regulators in the environmental and operating licence submissions that will follow prior to project execution.

1.3 Basis of Review

This independent review was conducted to confirm that the design concept will meet the South Australian regulatory requirements, and the ANCOLD tailings standards defined in:

1. South Australian Environmental Protection Authority, “Guidelines for Miners: Tailings and Tailings Storage Facilities in South Australia”, Minerals Regulatory Guidelines (MG5), September 2009.
2. Australian National Committee On Large Dams (ANCOLD), “Guidelines on Tailings Dams - Planning, Design, Construction, Operation and Closure”, May 2012.
3. South Australia, “Environmental Protection (Water Quality) Policy 2003”.

The approach taken has been to review the current level of design using professional judgement, in-depth experience, and knowledge of similar designs in South Australia, to confirm to the stakeholders (including Rex Minerals) that the detailed design that would eventuate would result in the construction and operation of a tailings storage facility (TSF) with sufficiently low residual risk in all potential consequence types.

In considering the requirements of standards listed above, the basis of the review has been to form an opinion of the key risks that may eventuate during construction, operation and closure, and to check that the proposed design is capable of controlling these risks to an acceptable residual level. As the design is at a pre-feasibility level, recommendations are made as to what would be required in the detailed design phases to satisfy later regulatory submission requirements.

2 Key Risks Issues and Consequence Category

2.1 Key Risk Issues Considered in Review

While the detailed design considerations for the IWL TSF will involve fairly routine geotechnical investigation, design and analysis, the design concept is fairly unique in that it involves the fairly rapid raising of the embankments to a considerable height and on a continuous basis. This raises a number of risk issues that need to be considered in addition to key design and operational issues. The risk issues considered in this review include:

1. **Rapid rates of construction**
    a. Safety during construction – ability to manage the potential interactions between various fleets and contractors involved in construction.
    b. Ability to ensure quality of construction materials, achievement of placed material specifications, and verification of assumed design and performance parameters under tight schedule pressure.
    c. Ability to operate the facility and achieve design objectives such as uniform beach and pond control, while continuous construction is proceeding.

   d. Change control – ensuring that changes to facilitate speedy construction are not made unless the potential impacts of those changes are fully risk assessed, and the changes approved by the designer.

2. **Scheduling of construction materials** – ability to plan and co-ordinate selected ex-mine material stockpiles in alignment with TSF construction schedule, i.e. integration of the TSF construction plan into the mining plan.

3. **Operational risk issues**
   a. Seepage of saline water – potential contamination of useable water sources.
   b. Stability of embankments under all loading conditions.
   c. Water balance - ability to operate TSF safely under abnormal plant and weather conditions.
   d. Surface water management – management of decant (supernatant and stormwater) under normal operating conditions and extreme storm events.
   e. Dust and other health and/or environmental issues.

4. **Dam failure issues**
   a. Sunny day catastrophic failure - safety of operations personnel in the process plant and the open pit.
   b. Extreme storm or seismic event – potential safety impacts and post-event damage and operational continuity.

5. **Closure issues**
   a. Post-closure land-use.
   b. Long term stability.
   c. Management of post-closure surface water.
   d. Management of post-closure environmental, health and safety impacts.
   e. Achievement of post-closure land-use objectives.

The ability of the design concept to manage these risk issues is discussed in the following sections under the specific design aspects considered, together with recommended work to be done in the later more detailed design phases, to ensure an adequately low residual risk in all cases.

2.2 ANCOLD Consequence Category

Based on a qualitative assessment of the potential for major safety and cost impacts as follows:

a. Financial cost of sunny day or extreme storm failure between $10million and $100 million
b. People at risk - between 10 and 100 persons located in breach flow-path in process plant and/or open pit.

The reviewer is in agreement with the ATC assessment that the TSF categorises as a High C Consequence Category dam (ANCOLD 2012, Table 2).

3 Location and Geometry

3.1 Conceptual Design Options Study

In the conceptual designs options study, ATC considered various alternative TSF designs and tailings thickening options (including paste). Because of the limited land availability, and the need to limit mining waste haulage and tailings pumping distances, the various designs were logically located in the available area upstream of the plant and the pit.

ATC recommended the IWL design as the preferred alternative.

3.2 Pre-feasibility Design

Based on a preliminary review of PFS feedback was provided that while the IWL design appeared sound in concept, there were several concerns associated with small TSF footprint and resulting high rate of rise and ultimate embankment height, including:

1. The ability to achieve tailings consolidation and hence storage assumptions.
2. The close upstream proximity of the higher than normal TSF embankment to the pit and process plant and the safety risks associated with a dam failure.
3. The construction and operational risks associated with a high rate of rise including the interaction of the heavy mining fleet with civil earthworks contractors, and TSF operational vehicles and staff.

Following this feedback the pre-feasibility design was modified to increase the TSF footprint by about 50%. This reduces the rate of rise to a level (less than 3m/year) at which full consolidation should be achieved, and reduces the overall height to 70m (maximum) which is comparable designs using waste rockfill TSF embankments e.g. Olympic Dam expansion (60m).

The revised TSF design also moves the TSF further from the plant and pit, providing space for additional waste-fill buffering downstream of the TSF, thereby reducing risk associated with failure. The modified location enhances not only enhances the design, but also reduces overall cost by reducing the waste haul distance.

4 Design concept

4.1 Integrated Waste Landform Concept

Utilising the abundant waste material to construct a landform sufficiently stable to store the large quantities of tailings that will be produced, within a footprint limited by land availability and a desire to minimise land disturbance, the IWL design appears to be the only design option for the Hillside Operation.

It is recommended that further optimisation of the TSF location, size and geometry be undertaken during the detailed design stages using a waste optimisation software such as, in order to optimise waste haul distance and cost. This would further reduce TSF risk.

4.2 Tailings Thickening Option

The proposed concept of thickening the tailings to 58% before pumping and distribution appears valid. Given that the TSF would act as a thickener capable of achieving a solids density and water return comparable with high density tailings, there is no apparent benefit in thickening the tailings beyond a density that can be pumped and disposed using lower pressure pumping and piping systems.

Paste tailings is not considered to be a viable option both from the point of view of there being no cost benefit as the same containment structure would be required, but capital and operating costs would increase dramatically, while paste tailings would require mechanical disposal in an already complex raise construction and operation environment.

The optionality of using high density tailings can however be retained within the project objectives, and considered during the detailed design stages.

5 Construction

5.1 Embankment Construction

The IWL introduces some construction complexities primarily associated with the construction of the outer waste supporting embankment using heavy mining fleet at the same time, and in close proximity to the construction of the inner lower permeability liner embankment. Construction of embankment raises will be carried out while operating the storage.

The construction complexity is exacerbated by uncertainties in the mining and TSF schedules, i.e. the higher the rate of rise, the more risk there is of not achieving the desired outcomes in terms of construction rates, quality, and construction and operational safety risk management.

The modified pre-feasibility design achieves an average rate of rise of around 3m/year after stage 1. At this rate, TSF construction can be safely achieved within design specifications.

However experience shows that the required construction schedule will only be successfully achieved if the construction planning and management is integrated into life of mine planning, i.e. a key mine planning performance indicator will be the ongoing stockpiling of sufficient quantities materials meeting the design specifications in accordance with the TSF construction schedule.

A key success factor in the construction and operation of the IWL TSF lies in ensuring that unsolicited changes are not made to the design or the construction schedule, or the dam operation, in order to save cost and/or time. Therefore it is strongly recommended that the TSF risk management system to be developed during the detailed design phases include:

1. Detailed description of the construction methodology.
2. Construction risk assessment demonstrating:
    a. Safe interactions across the different construction and operational functions.
    b. Adequate storage capacity contingency to provide flexibility in managing schedule slippage, unexpected operating conditions or issues and/or abnormal weather conditions.
3. A life of mine plan demonstrating the integration of the TSF construction into the life of mine planning. This is particularly necessary to confirm that the specified materials are stockpiled on schedule e.g. if hard rock is specified, the depth of pit must have advanced sufficiently.
4. Construction quality assurance, control and verification plan – demonstrating how the quality of the various structural components will be achieved for the continuous construction program, under ongoing operational conditions.

It is important that these are documented by the facility owner i.e. Rex Minerals, as the designer is generally not involved and has no influence in these activities or in the setting of organisational key performance indicators.

6 Geotechnical Analyses and Design

6.1 Seepage

The pre-feasibility design philosophy is to contain the saline tailings water within the TSF by lining the base and the sides using:

1. In-situ compaction of the clayey soils in the floor of the TSF.
2. Construction of 6m wide low permeability (clayey) compacted waste on the upstream face of the IWL embankment.

The review considers that the seepage containment measures are more than adequate for the proposed design concept, being conservative in that they are based on a premise that the seepage must be contained, and on the consideration of long term steady state conditions. In reality, it will take some time for the water to travel through the liner. Simplistically, under a 50m head, the water will travel at 0.16m/year through the liner ($k=1x10^{-10}$m/s) i.e. it will take seepage 37 years to move through the 6m liner under a 50m head.

As the seepage through the floor will be very slow, small in quantity, and have a low risk potential irrespective of the floor preparation and compaction - because tailings will seal the base rapidly, and because the seepage will ultimately report to the open pit "sink" - it is recommended that the need for the floor preparation and compaction be challenged and tested in the detailed design.

Similarly it is recommended that the fairly complex embankment face seepage containment measure be challenged and a re-design considered where the compaction and permeability specification is not as high, which will simplify construction and enhance consolidation of the tailings. While some seepage may get through a lower specification separation layer on the upstream face, all this seepage would be collected in the drainage system within the embankment, and not released into the environment. Due to the low associated risks with potential seepage, the engineering controls currently recommended for the floor/base and embankment containment may not be required to meet environmental outcomes and should be revisited during the detail design work.

6.2 Stability

The pre-feasibility stability analyses, based on design parameters derived from initial observations, field investigations and laboratory testing, is adequate for initial analysis purposes, and indicates that the proposed embankments will be stable under all loading conditions.

The stability of the embankments does not rely on the strength of the tailings. However it will be important in the detailed analyses to understand the consolidation and hence pore pressures in the tailings, as these will influence the loads on the "structural" zones of the embankment.

As the behaviour and interaction of the various elements of the embankment are key to the success of the TSF, a number of recommendations are made for incorporation in more detailed studies and design, including:

1. The testing and analysis program must be commensurate with the complexity of the design and demonstrate that all risks associated with the design are understood and managed, including the derivation and verification of design parameters.
2. Data needs to be obtained to suit the analyses that need to be conducted in order to validate the design. This requires an appreciation of the various possible influences and mechanisms of failure, e.g.:
    a. Consideration of the differential movements of mining fleet (mobile plant) placed and compacted rockfill to the compacted/engineered inner embankments requiring finite element analysed to check more complex failure modes that could cause cracking and/or lateral movements with leakage of tailings.
    b. The pore pressures in the tailings (see Section 7).
    c. The potential occurrence of perched phreatic surfaces (from seepage and rain infiltration) on fines trafficked on waste layer surface that blind.
    d. The variable strength and density across deeper coarse waste layers.
3. The seismic hazard assessment needs to consider local and regional faults and risk-based derivation of maximum design earthquake considering safety implications associated with the

location of downstream infrastructure. A dynamic analysis of the rockfill embankment would require earthquake time history models and appropriate cyclic triaxial information.

4. The reliability of the calculated factor of safety should be tested considering uncertainty in material strength and density to ensure that the probability of failure is low.
5. The strain and stiffness compatibilities of the materials at the clay/coarse interface should be confirmed under the loads and pore pressures anticipated.

In the detailed design, stability analyses using simplistic slope stability software will not be considered appropriate for the internal portions of the embankment where the interaction between the different zones needs to be understood.

In addition to the above, it is recommended that the risk assessment develop appropriate monitoring and surveillance controls to detect leading indicators of failure so that appropriate mitigation measures can be implemented before a particular issue can escalate out of control.

6.3 Water Balance

The pre-feasibility water balance is sufficient to demonstrate that the surface water that will be collected on the TSF (tailings supernatant and rainfall runoff) can be managed to an acceptable risk level.

The nature of the IWL design concept is such that additional freeboard can be easily provided if necessary. Similarly, provision of an emergency spillway, while not intended for normal operational use, ensures that the embankment will not be overtopped during extreme storm events.

During operations, excess water on the TSF will be detrimental to tailings consolidation and pore pressures, and also increases the safety and environmental risks associated with overtopping and failure. Hence a primary operational objective will be to minimise surface water on the TSF. In order to manage risks associated with excess water inventory on both the TSF and the decant and seepage collection pond (DSCP), the detailed design phase water balance should consider the following:

1. The detailed design phase water balance must be stochastic, using the estimated range of the input variables.
2. The range of tailings solids density inputs must model realistic process flows and out-of-balance events – the actual operating range is likely to be much wider than the thickener design range of 56.7% to 58.4%, particularly when:
    a. Including planned and unplanned events such as plant shut-downs when all plant and tailings lines are flushed.
    b. Including other process flows – in most operations, other process bleeds and waste streams etc. (dirty process water) are added to the thickener underflow and sent to the TSF. This can dilute the tailings well below the actual thickener underflow solids concentration.
3. Salinity can reduce free surface evaporation rate by more than 50%.
4. The normal and maximum operating levels and secondary but important issues that may occur during extreme storm events e.g. wave action on the upstream face. Some protection is provided against tailings erosion during normal operations using a sacrificial layer of waste, but major repairs may be required if the internal low permeability embankment is damaged during ponding of extreme storm events against the embankment.

5. The size and depth of the pond required to provide adequate retention time to clarify the water prior to being returned to the plant.

6. The dam break study needs to consider the scenario applicable to potential loss of life which is sunny day normal operations, and the dam break scenario under extreme event conditions when loss of life is unlikely as the plant and mine will be shut.
7. The capacity of the DSCP to minimise risk of a spill into the pit. Consideration should be given to designing this dam as a zero release dam, with the emergency spillway only activated by an extreme storm event when the pit is closed. However while this may cover safety risks, the flooding of the pit may not be acceptable to mining operations.
8. The operating plan, developed by the facility owner, should demonstrate that the risks associated with tailings and water operations, will be appropriately controlled at all times.

7 Drainage and Pore Pressure Control

The design uses a low permeability internal liner to contain the tailings. As illustrated earlier, steady state seepage conditions will take a very long time to occur; hence the issues around drainage will be primarily around consolidation of tailings and control of pore pressures across structural elements.

The collection of seepage is not seen as a major issue. If the outer material is coarse and free draining, and if it take >30 years for seepage to get through the low permeability liner, while a collection drain may be necessary for managing potentially contaminated saline infiltration, the size and complexity of the downstream blanket drains does not appear to match the risk control requirements. The function of the central drain across the full extent of the TSF is also not clear.

On the other hand, there will be uncertainty, even during operation, on the degree of consolidation being achieved in the tailings, and hence on the pore pressures exerted on the lined faces of the embankment. Hence internal drainage may be valuable in accelerating the consolidation of tailings in the early years when the rate of rise exceeds 3m/year, and in reducing pore pressures in the longer term. While the internal drainage may become less effective over time as fine tailings adjacent to the drain consolidates and becomes less permeable, this is not important as the drains will have served their early primary function.

Hence it is recommended that the detailed design considers the drainage requirements in response to the various influences that pore pressures, and in particular differential pore pressures across structural elements, may have. This will require the development of a transient coupled consolidation/pore pressure model using the different rates of filling. Steady state analysis of consolidation and pore pressure is not considered appropriate for the detailed design.

It is also recommended that the risk assessment develop contingency plans for managing consolidation and/or pore pressures issues if the predicted tailings consolidation does not occur.

8 TSF Operation

8.1 Operation of the TSF

The TSF will be operated like a conventional tailings dam with perimeter tailings distribution. The decant pond will be maintained against one of the walls, noting that the wall is designed as a dam.

The modified pre-feasibility acknowledges that the proposed operation using large spacing between spigots will need to be optimised during detailed design.

The spigot spacing and the methodology for deposition rotation need to consider:

1. To achieve design beach slope, the deposition flow-rate through each spigot needs to be low enough so that continuous uncontrolled channelling through/down the beach does not occur.

2. The distribution of tailings required to achieve a uniform beach around the facility so that the pool remains controlled at all times.
3. Uniform rotational deposition that provides sufficient consolidation and drying time between deposition cycles.
4. Achievement of design beach slope to manage rainfall from large storms – no ponding against walls, and adequate storm surge capacity.
5. The distance between spigots to ensure that frequent ponding of water against the embankment does not occur in the "valleys" between spigots.
6. The distance that the pond may be allowed to move laterally before deposition must occur from the opposite direction.

The risk management plan should also consider contingency measures to mitigate the risk associated with not achieving design beach slopes e.g. providing the ability to add further spigots if beach falls estimated are not achieved.

The detailed design phase should also consider a central pond that keeps water away from the external walls.

8.2 Management of Environmental and Health Risks

The potential environmental risks associated with the TSF include:

1. Dust during construction – this will be managed using conventional mining dust suppression techniques.
2. Dust from the tailings surface during operation – at a rate of 3m/year, although the tailings is likely to consolidate to the design density, it is unlikely that the tailings surface will dry out sufficiently to generate dust. If surface desiccation drying occurs, the tailings will form a saline crust, which will prevent windblown dust generation as the tailings surface will not be disturbed during construction operations.
3. Seepage of saline tailings water. Seepage of saline water through the base and sides of the TSF is not likely to have any impact on groundwater resources primarily because:
    a. The groundwater is not likely to have sustainable value.
    b. The seepage will be volumetrically very low because of the base and embankment low permeability lining.
    c. The open pit will act as a permanent sink, with any TSF seepage into the underlying foundations, migrating towards the open pit where it will be diluted and/or evaporated.

During the detailed design phase it will be necessary to confirm the TSF saline seepage fate assumptions by inputting the TSF seepage outputs into the mine-wide hydrogeological model.

The risk management program must consider the management of the various environmental risks over the life of mine, ensuring that there sufficient monitoring and reconciliation is done to confirm that the design assumptions e.g. that the tailings is geochemically benign and non-acid forming, do not change with time or with variation in the ore and/or waste rocks.

8.3 TSF Operational Management

As discussed in 8.1, the TSF will be operated like a conventional tailings dam with perimeter tailings distribution. There are no extraordinary TSF management issues associated with the proposed design, but as there are greater than normal (but not unacceptable) risks associated with its location and height, there will need to be greater focus and emphasis on operation and management to prevent failure.

It is recommended that operational documentation be developed during the detailed design phase:

1. Operations manuals (including operating manual, monitoring manual, emergency action plan) demonstrating an understanding of the complexities of the operation of this particular TSF, and outlining the trigger levels against which emergency actions would be activated. These may be conceptual at this point in time, but would identify and commit to ongoing coverage of the key issues.
2. An emergency action plan describing the leading indicators of potential failure, and the actions that will be taken by operations to mitigate potential impacts. This should include a business continuance/contingency plan where the operation is reliant on a single high risk facility, to ensure that tailings operation can be halted if needs be, without operational continuity pressure.
3. An emergency response plan (in accordance with ANCOLD Guidelines on Dam Safety Management, 2003) describing the monitoring triggers that will be used to identify a potential failure mechanism, and the emergency responses that will occur in order to remove all personnel from the potential tailings flow path, and hence ensure their unconditional safety at all times.

As in previous recommendations, it is important that Rex Minerals prepare these manuals, albeit in collaboration with the design consultant. This is because the design consultant will generally not be involved in the day-to-day operations, surveillance and monitoring and incident and emergency response decisions, and hence it is important that Rex Minerals as the facility owner and operator understands and appreciates the risk issues that must be managed, and set up the appropriate management system and processes to do this.

9 Conceptual Closure Design

From experience, the key to successful closure of the IWL TSF will lie in:

1. Defining land-use objectives that are realistic.
2. Engaging stakeholders in the closure planning exercise from the conceptual stage.

The conceptual closure plan land-use in the pre-feasibility design proposes capped and re-vegetated closure surfaces.

Developing a successfully revegetated and erosion-resistant cover is likely to be prohibitively expensive, and hence the objective appears to be unrealistic in terms of the value that will be gained i.e. the money and effort will be better spent elsewhere as this will generate more post-closure community and environmental value.

If the sides of the IWL need to be revegetated, then oxide waste should probably be stockpiled for this purpose and placed or mixed in with the outer coarse rock at closure to provide a base that can hold topsoil on the slope.

There is likely to be little success and/or value associated with a revegetated TSF top surface, which will not really be visible or accessible to the general public. Hence the detailed design phase should re-consider a land-use for the top surface of the TSF (and possibly the sides of the IWL) that has lesser value and more practical closure objectives than the PFS design cover. Options for land use post closure should be explored during operations through field trials on surrounding waste rock dumps that are scheduled to be rehabilitated prior to the IWF TSF. The minimum requirement to be achieved is a safe and stable in the very long term.

10 Conclusion

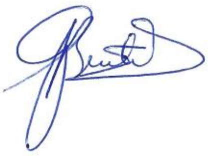
The conclusion of the independent review of the pre-feasibility level design is that stakeholders can be assured that when followed through to detailed design, construction and operation with the same professional approach employed to date, the proposed IWL TSF design:

1. Will be technically sound and considered leading practice for the proposed application.
2. Would result in the construction and operation of a TSF with acceptably low residual risk in all potential consequence types.
3. Will achieve the required MG5 outcome i.e. “Tailings and TSFs are to be managed to provide safe, stable and economic storage of tailings in a way that complies with all legislative requirements, and presents negligible public health and safety risks and acceptably low social and environmental impacts both on and off site during operation and indefinitely post closure.”

The IWL TSF design is suitable for the intended purpose, and the detailed design and risk management processes that will be followed in the later project design phases (listed in ATC Revised PFS Report, May 2013) together with consideration of the recommendations made in this report, will ensure an appropriate level of design that is capable of managing all associated construction, operation and closure risks are managed to the satisfaction of all stakeholders.

I trust that this report serves the purpose for which you intended, and look forward to addressing any queries from yourselves or any interested stakeholders.

Yours sincerely



Dr Gary Bentel