

Meeting between Representatives of Hillgrove Mines and SOMR on 28/2/14, 2pm in Bellbrook

Present: Hillgrove Mines representatives Daniel Calderwood and Peter Hoskings; SOMR members Paul Ekman, Christa Schwoebel, Steve Holden, John Cruickshanks, Bernadette O'Sullivan, Julie Mennega

Summary:

- There are now approximately 50 employees working at Hillgrove Mines, some of them currently going through an induction process.
- The start of the production process using new flotation tanks is planned for late April – early May.
- The underground works at Metz will use remote controlled machinery.
- Work on the recovery of contaminated water from old adits on the Hillgrove Mine site has begun.
- Metallurgical testwork is being completed to see whether it is feasible to re-process and remove the old tailings dam (TFS1) will be removed. TFS2 is deemed to be safe and will be used in the foreseeable future. A new tailings dam (TFS3) will be built about 4km distant from the gorge – pending approval.
- A new mine will be built at Clarks Gully (subject to approval) which is at a similar distance as TFS3 from the production site.
- The production of tungsten, which sometimes occurs together with gold and antimony in the Hillgrove area, is being investigated.
- The 2013 Environmental Management Report will be completed shortly and Daniel Calderwood will send it to SOMR.
- The next meeting between Hillgrove Mines and SOMR will be in approx 3 months at Hillgrove

The meeting started with Daniel and Peter giving an overview of activities since our last meeting in 2013. During the course of their presentation, SOMR members were able to ask a number of questions regarding water management, aspects of the mining process, and expected outcomes.

Hillgrove Mines currently has got 50 staff; 12 of them have been employed very recently and are currently undergoing basic training. When in full operation, Hillgrove Mines expect to have about 80 employees by mid-year and 100 by the end of the year. The new recruits currently in training are from the Armidale area.

Recent work on the site included internal road work, commencing engineering to bring power to adits, cleaning storm-water dams and installing new flotation tanks. A photo of the newly installed flotation tanks was shown and the functions explained. The crushed ore will be pumped into the tanks where the antimony and the gold is separated in froth flotation processes. (check out technical details on http://en.wikipedia.org/wiki/Froth_flotation)

It is expected that from the end of 2014, there will be an output of 6,000t of antimony concentrate p.a. at approx. 65% antimony content. The process will also yield approx. 8000 ounces of gold. Current expectations are that Hillgrove Mines will operate for the next 10 to 15 years.

The product, damp sandlike material, will be transported via the New England Highway to the ports of Newcastle or Brisbane (more likely to Brisbane) and from there shipped to China, other Asian countries and North America.

The process will result in approx 250,000 t of tailings per annum to be stored in the tailing dams. (more about tailing dams below)

The ore to be processed at the Hillgrove production facility will be mined in stopes at Metz which is located below Hillgrove on the other side of Bakers Creek. Ma-

chinery in the stopes is operated by remote control for safety purposes. (stopes are vertical shafts between two tunnels. Once again, check out wikipedia: <http://en.wikipedia.org/wiki/Stoping>)

At our previous meeting, the Hillgrove representatives spoke about recovery of contaminated water from old adits. The purpose of pumping water out of the adits is a) a source of water for the production process and b) reducing antimony and arsenic being washed into the catchment. It had been presented as a possibility at a later time depending on the viability of the whole venture.

We are now informed that the mine has already commenced building electrical supply lines to the adits with the intention of pumping water to the rain-water storage facility for processing and preventing it flowing into Bakers Creek.

This strategy had been discussed for nearly a decade and the new owners have committed to the engineering and expense to make it a reality.

The desludging of the stormwater No 1 dam is still in progress. EPA has accepted that the sludge is not scraped out as this could physically damage the bottom of the dams and cause more seepage into the groundwater. The water is being cleaned using permeate from the water treatment system to reduce the chemical load to a more acceptable level.

The site water balance has been updated and indicates that based on the 24 years of meteorological data and inputs used when modelling against the Environment Protection Licence criteria (1 in 100 year 72 hour ARI, 0.3 runoff coefficient), zero spills from emergency storage 3 into Bakers Creek.

Daniel Calderwood will forward the results to SOMR who hope that a zero tolerance to spills should be the acceptable benchmark.

Hillgrove Mines has purchased the nearby Hillgrove Station and preliminary developments are underway to establish a tailings dam approx 4km away from the

edge of the escarpment in a more environmentally safe area. If successful, this will aid the reprocessing and removal of the oldest tailings dam materials to this new facility. A pipeline will be built to pump the tailings from ongoing operations to this new dam.

The more recent tailings dam which remains on the edge of the escarpment, although of modern design with engineered walls and sub membrane, is envisaged to be filled within approx. 4 years following which it may be capped and sealed from rainwater entry. It has a membrane underneath with monitoring systems to detect any leakage.

A new mine at Clarks Gully is being planned. Hillgrove Mines holds the mining licences ML 1332 and ML 600. The preliminary assessments are being completed to be lodged with the State Govt. The remainder of the consent process will likely take two years.

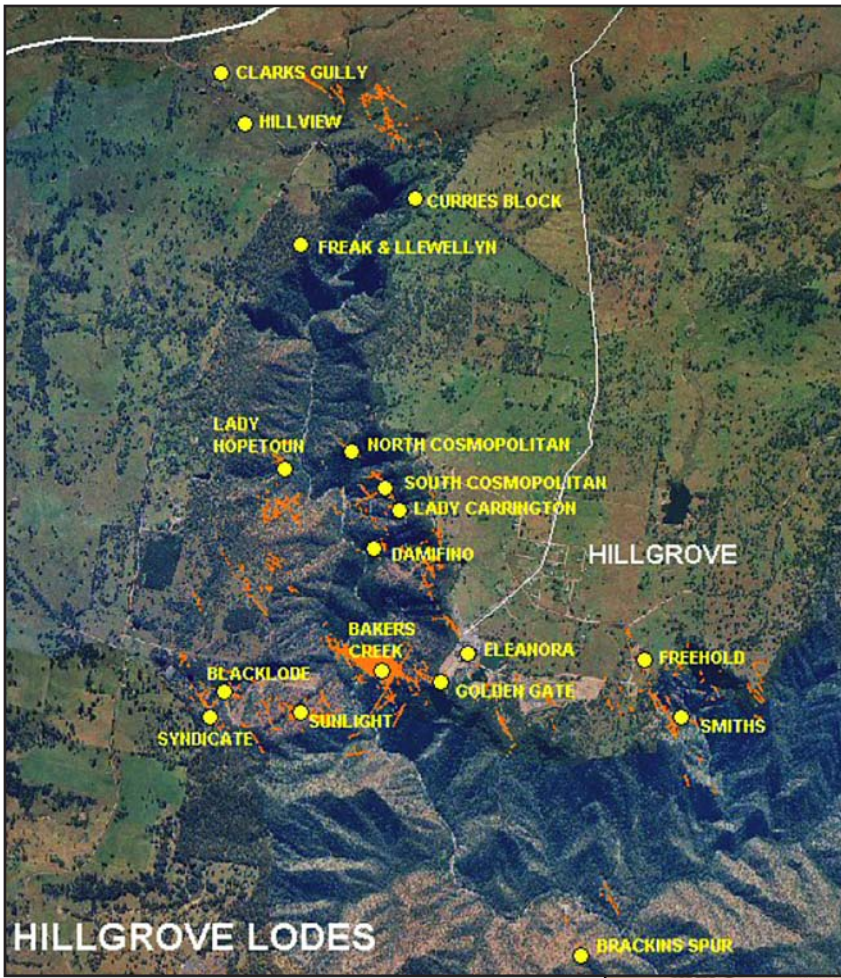
This new mine will consist of an open pit of approx 350m diameter and underground workings. To date there is confidence that any water encountered is local and not part of a larger regional aquifer. For location see map below.

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The mine has inherited a native title agreement and will fulfill the requirements of it. Hillgrove have had discussions with the Dhungutti Elders and Anaiwan people to progress this.

SOMR has been invited to hold the next meeting at Hillgrove in approx 3 months.

Daniel Calderwood will arrange details with Arthur Bain. ♦



Two maps showing Hillgrove mine sites. Note location of Clarks Gully at top.

The new tailings dam (TFS3) would be somewhere near the top right hand corner

