

## **Meeting between Representatives of Hillgrove Mines and SOMR on 28-2-15, 4pm at Bellbrook Community Hall**

### **Present:**

Hillgrove Mines representatives Daniel Calderwood and Peter Hoskings

SOMR members Rupert Milne Home, Christa Schwoebel, John Cruickshanks, Myree Cruickshanks, Denise Payne, Colin Payne



Peter and Daniel gave an update on the operations at Hillgrove Mine and future plans. As at previous meetings, the power point presentation triggered numerous questions and a lively discussion of almost two hours developed.

### **Employment**

Hillgrove Mine is currently employing 90 full time staff, intending for 100 soon.

### **Production & marketing**

The current production capacity is 175 ktpa; the aim is 250ktpa - revenue approx 90% antimony, 10% gold.

Hillgrove Mine is still developing direct market contacts, aiming to have a range of customers in several countries. Currently, the focus is on antimony and most of the product is sold to the US market to be used as flame retardant. Some is sold to India and some to China and other asian countries.

The product is transported from Hillgrove to Brisbane and shipped out from there. Processing to tri-oxides or similar products for use is done post shipment overseas.

### **Adit water capturing**

Of the 70-80 Ml water used annually by the mine, approx 10Ml are recaptured from the old adits within the Hillgrove Mine area.

Large electrical pumps are needed to pump water from the adits almost vertically straight up to the dam. The longest distance is 400m.

So far, one electrical 90kW pump has been installed, two power lines have been restored and recertified, a new transformer has been installed and access ladders have been replaced at one adit.

Of the 11 adits on site, two (Lady Hopetoun and Cosmopolitan) are too far from the power supply and vehicle access to successfully or economically pump the water for use in the mine operation. These are proposed to be permanently sealed. The adits are believed to be able to provide 40-50Ml a year for treatment and use in the mine, although the licence allows more. Peter and Daniel are “quietly confident” that the water will be fully contained, both from the sealed and used adits.

Another Adit Water Collection Project at Swamp Creek Gorge has also begun with the restoration of the power lines.

The investment to capture water from the adits and thus reduce legacy contamination from the area is quite substantial and is fully paid for by Hillgrove Mine. The question arose: What is the motivation under business and investor's consideration? Peter and Daniel said that it is important for them to “lift the bar” for responsible mining and reduce long term impacts on the environment.

### **Tailings Storage Facilities (TFS)**

TFS1, the old dam near the edge, is not in use anymore. Daniel said that investigation into the feasibility of reprocessing the sludge in TS1 are “reasonably promising”.

Currently, the walls of TFS2 are being raised by 2m to expand the capacity. To build up the wall, crushed rock which is waste material from the mine operation, is used and compacted. The dam is lined with a high performance mebrane which also has to be extended. Connecting the new to the existing lining is a difficult process. The seams are double welded, tests for leaks are carried out. The construction has to hold the sludge indefinitely.

It is anticipated that TFS2 will be full to capacity in 2017. By then, TFS3 which will be built 4km back from Bakers Creek Gorge should be available. TFS3 will be large enough to last to the end of the mine.

### **Clarks Gully**

As announced previously, Hillgrove Mine is expanding to Clarks Gully, approx 6km NNW of the current operations, not far from Waterfall Way. The land is owned by Hillgrove Mine.

A small drone, with 'LIDAR' was used by a contractor for an aerial survey with accuracy to 10cm.

Road access - haulage routes - between Clarks Gully and the Hillgrove Mine site along the top of Bakers Creek Gorge and by-passing Hillgrove Village has been arranged with landowners.

Flora and Fauna studies have been completed. Remnant species and eco systems were found. Deviation to avoid those areas is planned.

Geotechnical drilling has been completed. The granite in the area is extremely hard. This makes it very difficult to drill. It also indicates that groundwater will not be affected by the mining.

The EIS for this new part of Hillgrove Minbe will be completed by mid 2015.

The possibility of selling waste rock as a quarried product is being considered. Dumaresq Armidale Shire Council could be interested to access rock for roads and other construction work.

### **UNE research at Hillgrove**

The cooperation between Hillgrove and UNE and ANU continues. Central to the projects is the examination of the uptake of the contaminants across the whole food chain. Only recently an Honours Project about the plant uptake of pollutants was completed. Dr Susan Wilson might be able to supply copies of the completed students' projects.

UNE Associate Professor Darren Ryder is involved with the Macleay catchment Eco Health project.

### **Other**

- EPA random audit was carried out at Hillgrove before Christmas 2014. The mine operators are still awaiting the report, but verbal feedback (and lack of any action by EPA) indicate that there are no major issues of concern.
- The possibility of the extraction of tungsten in addition to antimony and gold had been mentioned previously. Currently, mining does not take place in a high tungsten area, but it is still seen as a future option.
- Another guided tour of the mine for SOMR members is planned for May or June.



If you have questions about further details of the operations, reports from previous meetings with the Hillgrove representatives and especially the report from the mine visit in June 2014 might give you the answers. See [www.saveourmacleayriver.com](http://www.saveourmacleayriver.com)