

Community Consultations
Missinipe
Wednesday July 16, 2008 7 pm

Golden Band Resources Inc:

- Gary Haywood, Vice-President, Operations & COO
- Richard Snider, Environment, Health & Safety Manager

SRK Consulting:

- Don Hovdebo, Principal Consultant (Environmental Assessment)

Saskatchewan Ministry of Environment (MOE):

- Malcolm Ross, Project Manager, Environmental Assessment

Canadian Environmental Assessment Agency (CEAA): Peter Boothroyd, Senior Project Officer, Prairies Office, Winnipeg.

Recorder:

- Gill Gracie, Aurora Communications Ltd.

Public: 19

MOE Presentation: Malcolm Ross

PowerPoint Presentation with handout

Golden Band Presentation: Gary Haywood/Richard Snider.

PowerPoint Presentation with handout.

Questions/Comments

1. Pre-presentation

What would you call a significant project, and how significant is this project in regard to impact to the environment?

M. Ross: I deal with a lot of mining projects. Gold mining projects are conventional processes, and the types and scale of effects are known. To trigger a public inquiry it would have to be large - only two have been triggered since 1989, one in the Great Sand Hills, and the other for uranium because we had five projects with high-grade ore bodies being proposed at the same time. A public inquiry is meant for big-ticket items. This is an important project, but in my opinion would not warrant a public inquiry.

Gold mining is known as one of the dirtiest types of mining, given the amount of waste rock versus the amount of gold, and using chemicals that can be incredibly dangerous to the environment.

M. Ross: There are methods to mitigate potential impacts.

How do you calculate the financial assurance fees?

M. Ross: It depends on the project. If they decommission and reclaim certain areas, the surety will be reduced because that component is already reclaimed to an acceptable standard. If they decided to mine another ore body, the surety would increase.

In terms of the process – who will explain to us – the company won't tell us if they're going to drain a lake. I'm concerned we will not hear the downsides.

M. Ross: They will. They will identify potential impacts and how they plan to deal with them. The process is open. The presentation will identify the regulatory standards, and spell out the requirements for financial assurance. The permit contains a whole list of requirements for monitoring water quality and other issues.

How is oversight provided by the province – who's watching the monitoring?

M. Ross: Project officers from the Industrial, Uranium and Hardrock Unit go on inspections and take parallel samples, which go for separate analyses.

Are the inspections announced?

M. Ross: That can be hard to do in some cases because of accessibility, especially on northern mine sites.

That's a lousy excuse.

How often are tests done?

M. Ross: It depends on the parameter; it could be monthly or less frequently.

Who sets the parameters?

M. Ross: The regulations spell out all the requirements.

I worry about unannounced inspections. When they are announced there's a suspicion the government is acting as a promoter rather than an inspector.

M. Ross: I'm sorry if you inferred that - I just meant that trying to get into site is often difficult, particularly for fly-in sites. Project officers will go in and take joint samples with the company. They are analyzed separately. The Minister of the Environment acts as an advocate for environment. Other ministries advocate for the mining industry.

The value of regulations is in how they are enforced. For example, Mexico has stringent regulations, but there are only about eight people to enforce them.

R. Snider: The people reviewing the EIS are the same people who are inspecting the site. They have the ability to do unannounced inspections. Saskatchewan Labour commonly does.

M. Ross: They have seen the proposal and the EIS and are now regulating the mine. They are familiar with what was said in the EIS.

These mines are at the top of the drainage systems, draining into waters we all use. The stuff being used is not very nice stuff – I'm just saying you have to be incredibly careful, from trucks driving on the highway to what's happening in the mine sites. I believe the job you're doing is really well controlled but . . . I'm particularly worried about the trucks.

Don Hovdebo: All this stuff is in the EIS. One of the reasons for the environmental impact statement – it comes out for public review and you have the opportunity to express those concerns.

How many regulators are there in this province? We're always short of people looking after things up here.

M. Ross: Eight. They're busy people.

R. Snider: About 20 – divided between what type of mines they inspect. There are also federal inspectors. Inspection frequency can change, and if there were any concerns we would see them stepped up.

2. During presentation:

How big is a small open pit – how many km?

G. Haywood: We will describe it in the presentation.

What is the pH level of the surrounding lakes?

R. Snider: I will look up the figures after the session.

Do you have environmental studies from the early 1980s? I would think Mallard Lake is very contaminated.

R. Snider: Yes – we have historical data from previous operations. We will talk more on Mallard later in the presentation.

Do you have to make a financial commitment to improving highways?

Gary Haywood: We are required to pay the province half the cost savings from using larger trucks. We do not control how they use the money.

Is the life of Bingo only 2 years?

G. Haywood: We have drilled to depth but not along strike. It warrants another look to the south and to the north – we will get into production and then look for more as we go.

Would further exploration require further permits?

G. Haywood: We could drill from underground with no impact on surface. We have done short holes (about 10m long) from underground.

How will you be servicing the site?

G. Haywood: There will be no camp on site, just an office facility. We are looking at housing some here, and some in Grandmother's Bay. We have not come to a definitive conclusion yet., but they will not be on site. One of the proposals from Kitsaki Management is to put a facility into Grandmother's Bay for employee use. They have looked at the type of facility that would benefit their community.

How many employees do you expect?

G. Haywood: About 25 at Bingo, 25 at Komis, 50 at Jolu. We have no definitive numbers yet for catering and ore transport, but the employee numbers are pretty close. Jolu will be the hub of the operation.

You said "when underground voids become available"?? What's the time span?

Gary Haywood: It's hard to say right now, we don't have enough information. "Acid generating" must consider the length of time it takes to produce acid. We can test for the time frame to produce acid, and will do those tests so we could store the PAG rock on surface for a time then put it underground.

But if you had no available space underground . . .

Gary Haywood: Over a short term we can put it on a lined pad and collect the runoff water. Long-term we will take it underground and use it as backfill.

R. Snider: The timeline is maximum two years based on the life of the mine right now..

Did Golden Band assume environmental liability from the previous companies?

R. Snider: Yes. We purchased everything. There is financial assurance in place for Jolu and for the road; there is nothing new in place for Komis (requirements for financial assurance may not have been fully in place when Komis operated).

How much water will be pulled from lakes and streams?

R. Snider: For the mines, a fairly low amount. Bingo operated for months without any needed for the underground. We used some for showers and washrooms but it was minimal – some months only about 50 cubic metres per month. We have to apply to the Saskatchewan Water Corporation and identify the amount of water we think we will use. The mill will use about 16 cubic metres per hour.

How is grey water from washrooms etc disposed of?

R. Snider: At Bingo it is hauled off site from septic tanks. At Komis and Bingo we will likely continue to transport off site. At Jolu we will likely place it in the TMF.

Is the number of employees set? That's a huge impact if the number of employees doubles.

G. Haywood: We would have to look at budgets. Also when operating, we tend to want more and more people. These numbers are theoretical; it will probably be plus or minus

25-30%. Our numbers are close on the mining side. We did some comparisons to similar sites like Seabee, and there is lots of reference material such as the Annual Mining Source Book.

How long will you be around? Is it determined by the price of gold?

G. Haywood: At least 10 years. Yes, the price of gold controls us.

Does the new circuit increase the amount of cyanide used?

G. Haywood: It reduces it. It's an intense leaching circuit which pulls more gold in. The leaching circuit itself is inefficient, and by putting more into the gravity circuit, it's an intense cyanide leach so we use less.

Can you pull the mercury out of those tailings? What about high water and spilling back into Cell C?

G. Haywood: Yes, we will recover the gold, and the mercury goes with our tailings into Cell B.

R. Snider: We want to make sure the mercury is in Cell B so we can cover it up.

If you take those fish and relocate them . . .

R. Snider: We would not want to relocate them if they were mercury contaminated.

G. Haywood: Our recommendation is to destroy the fish. The methods are up for discussion.

The cyanide would do it.

R. Snider: We will not operate until the fish have been removed. Options include netting; chemicals such as Rotenone, which biodegrades within a short time, and electrofishing. We will not ultimately make the call (*the regulators will*).

What fish occur in the TMF?

R. Snider: Northern pike eggs, white sucker, lake chub and whitefish.

Does RO change the pH level?

R. Snider: You can adjust for that; typically it doesn't change much. Treated water is more representative of the receiving body.

How will reject water be disposed of?

R. Snider: It will move to the grinding circuit and eventually to the solid tailings.

What percentage of water gets recycled?

R. Snider: About 10 cubic metres (m³) total; about 5.5 m³/hr is recycled back. That's an average number for RO plants. RO plants use less electricity when warm, so we would try to operate during the summer.

If you're using 16m³/hr, what happens to the rest?

R. Snider: Water gets trapped within the tailings. All is taken into account in the overall water balance.

What if you don't meet your predictions?

R. Snider: There are a number of contingencies. We can use hydrogen peroxide to help remove cyanide; rotate the use of tailings cells to encourage natural degradation of cyanide; we have an ability to relocate where the water is being used, and where the source of water in the WTP is so we can put some through with less cyanide, for example. We have to have predictions and do our best to meet them. If we have problems meeting them, we have to take other measures.

If you clean up cell C, is the net impact going to be worse or better. If the TMA expands within the existing footprint what impact will that have?

R. Snider: We're going further upslope. The intent is to remove the risk from mercury in Cell C. We have found mercury in fish downstream as well. The amount of tailings will be increased. We will expand the height to increase the capacity, and we are also going into the uplands area.

G. Haywood: We consider cell C a liability and want to remove it. Every tonne of ore put in comes out at the back end as tailings.

Are you saying the net impact will be the same?

R. Snider: We haven't made that statement. We will be significantly reducing the risk.

G. Haywood: The uplands area was not used for tailings, it was used as a polishing pond. On that seven hectares (*where the above-ground tailings will go*) there will be an impact.

In 10 years, would you consider putting this back into the mine shafts? That would reduce the area of leaching in future.

G. Haywood: Probably not. It's not our intent to turn Mallard back into a lake. The tailings will always have a water cover so they should not be affected by leaching.

R. Snider: We don't want to have several TMFs to monitor.

G. Haywood: An open pit is an option, a contingency, but not preferred. It would mean two areas to monitor.

D. Hovdebo: Moving tailings is really not an option. Cyanide breaks down naturally under ultraviolet light. The fish moved into this site after decommissioning; the water supports a fish population but not a good one. But, cyanide is not permanent. Copper and other elements last longer. The tailings pond at Contact Lake, called Turtle Lake, now meets Saskatchewan Surface Water Quality Objectives.

What is the time period for cyanide to break down?

D. Hovdebo: In Africa, with lots of sun, about 300 days. The problem here it's covered with snow or ice half the year. Here it takes about three summers if you're not doing anything to it. Issues around cyanide treatment are well understood.

The previous owners were there 2-4 years, but you will be there 10 years.

R. Snider: We are looking at about a four-year project life, but hoping for 10.

G. Haywood: That's the business plan, not the project proposal. When Corona was operating, there were 70-80 companies with holdings in the area. They have come and gone, and we've been acquiring those properties. No-one had one good project, no one had a basis for long-term projects. We have spent \$30 million in exploration and acquisition over 14 years. We have made some significant discoveries.

What are the standards for decommissioning roads? I've been to the Contact Lake road – is that the standard? It doesn't look decommissioned – it's full of iron bars and a mess.

R. Snider: The standard is to remove all culverts, scarify to allow revegetation, and do revegetation as needed. That is our intention with ours. Sometimes you leave a road in place to access the site for monitoring. I see us leaving the road in place until the site is stable.

(Later information revealed the questioner probably had the wrong road – an old Studer Mines road, not the Contact Lake road).

Who polices that? Did the other organizations have that? If you ditch after two years, who chases you.

R. Snider: It depends when they operated. The requirement for Financial Assurance started provincially in 1996. If we're unwilling to clean up, the province has some form of cash security from the company to make sure the site can be cleaned up, usually an irrevocable Letter of Credit.

Who comes up with the value?

R. Snider: We develop a decommissioning plan outlining what we need to do, and estimate costs for each part of the work.

What happens for example in Yew Lake where we can't eat the fish?

R. Snider: Financial assurance would cover demolishing of the mill, decommissioning of TMF (soil or water cover), camp, water intake structures etc. It's all in the plan. The challenge is what to do with historic impacts.

The Minister of Environment reviews our figures, and we work back and forth. The costs are based on contractors doing the work. The idea is to build very conservative plans to create a buffer. It's re-evaluated every five years minimum, or if there are changes on site. You can't cancel financial assurance unless you replace it.

D. Hovdebo: Levels of mercury in Yew Lake fish are statistically higher; it doesn't mean you can't eat the fish. There would be restrictions on, for example, nursing/pregnant women eating it.

What about inflation?

D. Hovdebo: That's part of the reason for revisiting it every five years. The company can't use assets to offset the financial assurance amount.

What do you do if there's a spill during transportation?

R. Snider: Ore is transported as rock, so there would be no disturbance. There may also be fuel spills. The mill site is more of concern because there are stores of fuel, chemicals etc. We would probably use Northern Resource Trucking to transport chemicals, because they are experienced and they have a contingency plan. Once a company is selected, we will look at a response.

G. Haywood: We will make sure they have the experience plus the capability of spill response. Cyanide is transported in approved containers. There are codes in place for transport of chemicals.

Is that under the EA, or is the onus on you?

R. Snider: Regarding identifying what we're carrying, it's all identified in the EIS.

G. Haywood: The ultimate responsibility rests with us because we are the operator. We are responsible for environmental performance and the safety of our contractors. We will be using lime for pH control, acid, smaller volumes of chemicals used in smelting, such as borax and sodium chloride in small quantities. Cyanide and lime are probably the largest volumes.

Another issue is the impact of large loads on the road surface. In 94-96 we were down to boulders. Whose responsibility is it?

G. Haywood: It is provincial highways' responsibility; that's why we have the compensation agreement.

Back to the baseline assessment maps: why do the baseline studies go north while water flow goes south?

R. Snider: We focus on the downstream receiving body, which is Yew Lake. Aquatic baselines are always more focused around the sites, not further downstream. The nature of plants and raptors is more scattered.

D. Hovdebo: There are some off the corner of map. (*Explained how some of the studies work*). The EIS has all the data and the results for all lakes.

G. Haywood: Yew Lake flows into Long Lake. Another reason going north is we are drawing water from Jojay Lake.

So if you find values, you check all lakes it flows into? How far downstream do you go?

D. Hovdebo: You go till you have no impact. We look first at the receiving environment for impact on the water column and different trophic levels.

The baseline indicates where monitoring will be done ahead of time? Why so far upstream?

D. Hovdebo: This is a baseline for a number of projects, not just these. The EIS will show all lakes.

Are any chemicals going on site to Bingo?

R. Snider: Fuels and lubricants, and perhaps some for pH or ammonia control. As a contingency we may use coagulants to settle solids.

Will waste rock sit on site?

R. Snider: We look at mine rock to see if it's potentially acid-generating or not. If not, the chance of releasing metals is negligible and it can safely sit on site.

At Komis and EP you're mixing the two?

R. Snider: We feel we can blend those to make a neutral mix.

Is noise pollution factored in?

R. Snider: Yes, nuisance value is factored in. We're here to see what the specific concerns are. If you have concerns, contact me or Malcolm. Or review the EIS yourself and let us know.

Where does cyanide come from? What form is it in?

G. Haywood: It will come in a solid form,. We will bring it in small briquettes in a container; it goes into a tank and gets mixed into liquid. It comes from Quebec and the U.S., through two suppliers based in Saskatoon.

What if there's an accident with a cyanide truck?

G. Haywood: Cyanide is transported in special iso-containers which are supposed not to be damaged if they fall off a truck. There's a code for the use of cyanide, as well as standards for transport, use and storage.

D. Hovdebo: The same product has been coming up the road to the Seabee mine since 1988.

Will we hear the blasting in the underground mine from Devil Lake?

G. Haywood: 100 metres from site you might feel the vibration. On surface at Bingo we can hear shocks from individual holes.

Concerns about getting something back from this meeting regarding the issues we raised.

R. Snider: You can talk to Malcolm or the project officer.

G. Haywood: The notes from the meetings are public and will be posted on our web site.