



## Attendees

- George Bihun – Environmental Project Officer, Environmental Protection Branch (Prince Albert)
- Joseph Tsannie – Vice Chief, Prince Albert Grand Council
- Jim Tsannie – Prince Albert Grand Council
- Louis Mercredi – Fond du Lac Denesuline First Nation
- Emily Jones – Interpreter and Fond du Lac Band Member
- Lloyd Gould – Representing ACFN/Jack Flett from Fort McMurray
- Allen Joseyounen – Hatchet Lake Denesuline First Nation
- Peter Piochion - Metis Nation Saskatchewan/Stony Rapids
- Denise Chapman – Sr. Geoenvironmental Engineer, O’Kane Consultants Inc.
- Kristie Bonstrom - Geoscientist, O’Kane Consultants Inc.
- Trevor Podaima – Senior Consultant, SRK
- Mark Liskowich – Principal Consultant, SRK
- Chris Reid – Project Manager, Gunnar Site, SRC
- Mark Calette – Senior Advisor, Community and Aboriginal Engagement, SRC
- Vanessa Crawford – Administrative Assistant, SRC
- Eric Thiessen - Interactive Communications Specialist, SRC

## Agenda

- Gunnar Site Tour
- Opening Prayer
- SRC Presentation and Discussion – Gunnar Cleanup Progress
  - Project Objectives
  - Project Endpoints
  - Summary of Site Conditions
  - Issues to Address
  - Public Engagement
  - Training and Job Opportunities for Local Communities
- O’Kane Presentation and Discussion
  - Conceptual Design for Tailings cover
- Closing Prayers

## Discussion regarding tailings cover

Q. What about sand and dirt contaminant effects? Once big trucks start working in the area we will need to start air monitoring.

A. An air monitoring program was completed in the past and we may need to start it again. The tailings cover will help with sand and dirt getting into the air. Air monitoring was conducted at the Lorado Mill Site. The monitoring showed most of the dust they found was from the roads, not the tailings.

Q. Was erosion taken into account when the tailings cover was designed? What will you do if something goes wrong?

A. The plan is to make the drainage angle low enough to move water effectively, handle settling and mitigate erosion. It isn’t anticipated to be a problem. The fill is also important to help with settling and erosion or ponding.



Q. How many years do you anticipate it will take to get the vegetation back to its original state?

A. It could take up to 100 years. It is dependent on various factors: the weather and which direction it is facing (north/south).

Q. Why don't you use an HDPE (High Density Polyethylene) liner? It would stop 100 percent of the water from going into the groundwater.

A. Using a HDPE plastic liner would cause the water to accumulate and saturate the ground. They also don't have longevity. When the liner breaks down or disintegrates, it's hard to replace.

Comment: Fill options: Till borrow material (from natural areas) another option is waste rock  
Using the airstrip is an option. It is already disturbed material; it would be a better option than clearing land

Q. If there was no vegetation on the tailings cover, would we have more erosion? Based on previous experience there is concern over the use of vegetation as an erosion control. Based on this experience, the cover needs to be intrinsically resistant to erosion in the event of a forest fire or loss of vegetation.

A. The gradients/slopes aren't very steep, so they don't anticipate a lot of erosion. Data loggers will monitor the cover systems for weather, temperature, moisture, snow depth, and freeze/thaw cycles. The data loggers record every 6 hours.

#### *Additional Information*

- Will work on an explanation for contamination to help the communities understand different percentages, possible impacts, and accumulative effects.

#### Discussion regarding asbestos

Q. What kind of asbestos is at Gunnar?

A. Friable and non-friable asbestos was located at the Gunnar site. One of the non-friable asbestos piles will be re-covered this summer with a large tarp. The friable asbestos has been bagged and contained in a large building that is locked. It will eventually be moved and buried within the waste rock or some other location onsite, covered with till and re-vegetated.

*Definition of friable and non-friable asbestos:* An ACM (Asbestos Containing Material) is considered **friable** if it can be crumbled, pulverized, or reduced to powder by hand pressure. If it can't, it's considered **non-friable** ACM.

#### Discussion regarding monitoring of the flooded Gunnar Open Pit

Q. Have there been any cameras sent down to the pit to see what exactly is in there?

A. SRC will check into it. One of the communities has an underwater rover.

Q. Are there plans to plug up the openings in the pit?

A. SRC will provide all options in the Gunnar Remediation Plan. The costs are weighed against the risks, then a decision will be made regarding a water treatment plant. The pit is stable and may become unstable by draining it. It is very difficult to put men in there to put caps or bulk heads to seal them off.



If it looks like the concentrations of COPCs in the pit are getting worse, we may look into setting up a water treatment plant.

Q. What are the levels of groundwater seepage from the Gunnar pit?

A. When the tailings pond was flooded, the water level ended up being higher than Lake Athabasca. The water is still higher, so it is a good indication there isn't much seepage. Rock in the pit is very tight, which also indicates there isn't much seepage. Physical barriers have also been put into place to keep fish from entering the pond and becoming contaminated. An intensive monitoring program could be established to determine this and monitor it into the future.

Q. Are there any raises in the pit?

A. Yes, there are three raises to the underground, in addition to the main shaft and pit.

#### *General Comment from the Community*

- Recommend an MOU (Memorandum of Understanding) be put into place with the Athabasca communities for consultation and make sure they are in agreement with the ICPs (Institutional Control Plan).
- Come to an agreement regarding how the monitoring is done with input from communities

#### Discussions regarding monitoring of Langley Bay and Zeemel Bay

Q. Do you know if there is seepage into the Bays? The fish feed in the bays. Why hasn't Ministry of Environment become involved to provide support for cleaning up the area.

A. Studies have been conducted regarding this. We can only manage the risks. The smaller fish have been impacted, but the smaller fish aren't eaten by people. The bigger fish do eat the smaller fish, but the risk is lower at that point. Studies are ongoing regarding this issue.

Samples collected as part of the provincial Eastern Athabasca Regional Monitoring Program (EARMP) study have shown that country foods including berries, fish, moose and caribou are safe to eat.

Q. Can carbon be added to Langley Bay as a natural filtration system?

A. Carbon would pick up other minerals, but likely not uranium. Barium chloride might pick up uranium.

Q. Water levels are declining at Langley Bay. When the water dries up, do contaminants stay there and what do you do about it?

A. There is an adaptive management plan. This has been taken into account. You have to design for the highest/lowest water levels.

Q. Have there been any studies conducted on leaving the submerged tailings in Langley Bay?

A. Langley Bay is getting water from all the tailings areas. Once we have the tailings covers, which will help with the contaminants into the Langley. Once that is done, we can continue to monitor for any changes.

We want to attack the problems we understand to date. We'll address the main source we know now and then assess the Bay. When we understand that, we will start work. We are learning from past experiences (e.g., Beaverlodge: they dredged the area, which stirred up the bay and made things worse.)



Q. Is there an option to divert Zeemel Bay? If we do, clean water won't come into the contaminated area and become contaminated.

A. That is one of our options that we are currently investigating.

#### *General Comments from the Community*

- SRC needs to be ready to answer questions about seepage into the Bays. Maybe the volume of water coming in is faster than the volume going out? Maybe that is why the level is still higher than Lake Athabasca. More research needs to be done.
- Map of the water flows requested.

#### General discussion items regarding employment

Q. Will there be any training for future employment with mine remediation?

A. Training is always on going. We are currently working on training ideas that might have some relevance down the road for not only remediation work, but in other areas. We are working on real-needs training programs. We are also working with PAGC to establish an environmental monitoring program.

To date, the following training has been provided to northern Communities

- WHMIS; Transportation of Dangerous Goods
- Respiratory Protection; Hand & Power Tools Use-awareness
- Confined Space Entry Awareness
- Hand Signals; Generator/Pumps; Personal Protection Equipment
- Working around Heavy Equipment; Asbestos Abatement
- Radiation Safety; First Aid

Q. How much work will be required in the next few years?

A. This is still being determined.

Q. What were the challenges and concerns regarding the contractors and expectations? How can we make it better?

A: People not having a northern driver's license was a barrier. The contractor addressed this in 2015 by arranging the training needed into the communities to help alleviate this barrier. Another challenge is the need for the contractors to have better integration with the communities. The contractors need to spend more time communicating with communities about the project and any opportunities or issues that come up.

#### *Additional Information*

- Gunnar camp provider One Sky (100 percent aboriginal company) is committed to hiring aboriginal employees from the Athabasca region
- More information was provided on Lorado stats for employment last year. SRC made targets achievable to set contractors up for success.
  - Person hours: Target 50% - Actual 54% were Athabasca region aboriginal workers
  - Heavy Equipment: Target 55% - Actual 65.1% which included excavators, haul trucks, dozers, graders, loaders, packers, etc.)



- Dollars Spent: Target 32% - Actual 38% in the Athabasca region on accommodation, local and regional equipment, sub-contractors, flights, supplies, mobilization and demobilization, freight handling, miscellaneous items

#### *General Comments from Community Members*

- Suggest hiring a community relations coordinator/community liaison; someone in each community who can represent both parties
- When people came from the Athabasca region to work at Lorado, they weren't treated with respect and fairly by the contractors. Communication was not very good. By the end of the season things improved, once SRC intervened and worked with the contractors.
  - Response: SRC values its relationship with the communities and will help in any way to facilitate between the contractors and the employees of the Athabasca Region.

#### General discussion items

Q. Are there any burial sites around the Gunnar area? Is there Traditional Knowledge and Traditional Land Use?

A. Ron Robillard and Tina Giroux of PAGC have been contacted when we have questions. A Traditional Knowledge study, created by PAGC for the area, is used as a guide. Rare species, plants and heritage surveys are also being done. If anything is found, the area is sectioned off and protected from any work being conducted.

Q. Are there any plans of taking down the power lines in the area?

A. Gunnar did not having any lines coming into it; they had no connection to Uranium City. The other power lines are Uranium City's and are owned by Sask Power. Sask Power has been approached to remove them, but they have no plans at the moment to decommission them.

Q. How much has the Gunnar Remediation Project cost so far? How much is left to spend?

A. \$200 million is the budgeted estimate to do the work on the sites. Demolition costs were \$51 million. To date, \$60 million (demolition and assessments) has been spent.

Q. Are you worried we won't have enough money to complete the whole project?

A. There is enough money to complete the project. We are already moving onto the design phase of the project.

Q. Does Gunnar Mine have to help with the cleaning up? How much are they responsible for?

A. Gunnar Mine no longer exists. They just walked away when they completed their work. It is up to the government to pay for the cleanup.

#### *Additional Information*

- Written submissions are open to individuals, not-for-profit organizations and aboriginal communities. It is not open to municipalities.
- All the meetings we are having are leading to the commission meeting on September 30, 2015.
- There are thousands of dumps, mines and oils. We have to contain and monitor them. People have to accept there may be industrial dumps we have to monitor and maintain for many years.



*General Comments from Community Members*

- Glad SRC recorded the site tour and interviewed community members because it's important to document this history for the next generation
- Recommend getting some compensation for the community members living in the Athabasca region, once the remediation is done; someone needs to be accountable.
- Important for community to work at these sites during the remediation process.