

Nanisivik Closure & Reclamation News

November 2002



**Ensuring that
Arctic Bay is
Informed.**

HIGHLIGHTS OF THE NANISIVIK MINE CLOSURE AND RECLAMATION WATER LICENCE

By

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A BRIEF HISTORY

On February 11, 2002, the Nunavut Water Board ("NWB") received

a water licence application from CanZinco Limited for the closure and reclamation of the Nanisivik Mine. In July 2002, the NWB held a public hearing in Arctic Bay to address CanZinco's application. The Hamlet of Arctic Bay and several of its citizens, CanZinco, Indian and Northern Affairs Canada ("INAC"), the Government of Nunavut ("GN"), Fisheries and Oceans Canada, and Nunavut Tunngavik Incorporated ("NTI") presented statements there. Following the hearing, interested parties were given opportunity to submit supplemental evidence, and CanZinco was given the opportunity to respond to the evidence. On September 28, 2002 the NWB met in Yellowknife and agreed to issue a closure and reclamation

licence to CanZinco. The NWB's Chief Executive Officer, Thomas Kudloo, signed the licence on October 10, 2002 at Baker Lake. The NWB's *Reasons for Decision* was issued on October 23, 2003.

The following text summarizes the portions of the licence that are likely to be most interesting to the community of Arctic Bay.

PUBLIC HEARING

The water licence sets several conditions that must be met before CanZinco can undertake reclamation work. These include providing a security deposit, a final closure and reclamation plan, and a number of technical studies. Permission to carry out reclamation work will commence when the NWB has reviewed the company's submissions at a public hearing in Arctic Bay, which is likely to be held in early 2003. The community will be invited to comment upon CanZinco's plan at this time.

THE SECURITY DEPOSIT

CanZinco must provide, by mid-December, a security deposit of 17.6 million dollars. That is the estimated amount of money required to clean up Nanisivik if INAC assumes responsibility for



**A public hearing
will be an
important part
of finalizing
CanZinco's
water licence**

the site should CanZinco declare bankruptcy or somehow “walk away” from its obligations. The amount required is based on the assumption that an outside contractor would be hired to carry out the clean-up. That would result in higher costs than would be expected if CanZinco did the work itself.

At the time of the hearing, CanZinco had posted 5 million dollars of security. The company then failed to make its July 31st, 2002 payment of 1 million dollars. However, on October 29, 2002, a letter to the NWB from CanZinco’s legal counsel stated that the company had reached an agreement with INAC regarding the outstanding payment. CanZinco presented in support of this claim a letter from its parent company, Breakwater Resources Ltd., to INAC stating that it would guarantee the 1-million-dollar security. In the same letter, CanZinco asked the NWB to allow it an additional 30 days to address the issue of the remaining security. The NWB requested submissions from all interested parties, including the Hamlet of Arctic Bay, concerning CanZinco’s request. CanZinco was granted its request at a NWB meeting on November 9, 2002.

Because of CanZinco’s financial situation, the licence includes Breakwater Resources Ltd. as a guarantor of CanZinco’s security requirements. Breakwater’s President and CEO, Colin Benner, has accepted this condition in a letter to the NWB. However, Breakwater placed a limit on its contribution, stating that it would post security only up to the maximum of the 9.1-million-dollar closure and reclamation cost estimate

determined by CanZinco’s consultants. The NWB is encouraged by Breakwater’s pledge to guarantee security, but it considers the limit to be unreasonable, as the company cannot set its own licence conditions.

THE CLOSURE AND RECLAMATION PLAN

In order to proceed with reclamation work, CanZinco must submit to the NWB a Closure and Reclamation Plan, including a number of studies that will provide a better understanding of the technical and environmental issues. Those studies will include:

- § a Phase II Environmental Site Assessment (“ESA”), which will provide information on the types and amounts of contamination at Nanisivik. This study will include the issue of wind-blown tailings, hydrocarbon contamination in the landfill, and contamination of the marine environment around the dock and loading facilities;
- § an Ecological and Human Health Risk Assessment, which will help determine how dangerous contaminants at Nanisivik are to people and the environment;
- § closure plans for the West Twin Disposal Area, the Underground Solid Waste Disposal site and the Landfill site;
- § assessments of the rock material to cover the tailings pond, unfrozen zones (taliks) within the surface tailings, quarries, and waste rock.

According to CanZinco, the reclamation work will take two years to complete. It will presumably start in summer 2003 after the plan is approved.

MONITORING

It was clear to the NWB at July’s public hearing that the issue of monitoring is extremely important to the people of Arctic Bay. The Hamlet of Arctic Bay, as well as the GN, INAC, and NTI, stated



that the seven-year monitoring program proposed by CanZinco was too short. CanZinco has responded to these concerns by stating that it will extend the monitoring phase at the discretion of the regulators if there is good reason to do so.

It is the NWB's opinion that monitoring must occur until the mine site poses no further threat to the environment. The NWB will ensure through its water licenses that the company continues its monitoring program until that is achieved. In its final Closure and Reclamation Plan, CanZinco will be required to outline a more comprehensive monitoring plan that will take into account the results and conclusions of the studies and reports requested by the NWB.

Meanwhile, the mine is subject under the current licence to the most recent environmental standards for water quality, which are at least as stringent as the requirements of the new *Metal Mining Effluent Regulations*.

Current monitoring requirements at the site include:

- § annual visits by a Geotechnical Engineer to inspect the West Twin Disposal Area, East Adit Treatment facility and fuel containment areas;
- § water sampling for a number of contaminants, including zinc, lead, cadmium, arsenic, and nickel;
- § testing on rainbow trout and waterfleas, which are the standard organisms used to determine the toxicity of effluent flowing out of the mine site;
- § quarterly reports on effluent monitoring;
- § an annual report summarizing the past year's monitoring results.

A NEW FACE IN THE COMMUNITY



There's a new face in Arctic Bay. His name is Patrick Duxbury, and he is here to work as the Nunavut Water Board's Nanisivik Coordinator.

Following the July 2002 NWB hearings in Arctic Bay, the Board decided that it would be useful to place a staff member in the community, who would both represent the Board and serve as a resource person to help explain various aspects of the Nanisivik Mine closure.

Patrick comes from Montreal, where he has been living for the past four years. The Board has contracted him from the environmental and aboriginal affairs firm, *Paul F. Wilkinson & Associates Inc.* Patrick holds a Bachelor's degree from the University of Guelph in Environmental Science and a Master's degree in Agricultural and Biosystems Engineering from McGill University, where he

studied contaminated sites and environmental restoration. His work here will include:

- § assisting community member to understand the details of the Nunavut Water Board's Nanisivik Mine Closure and Reclamation Licence;
- § helping to answer community concerns about the mine closure and its effects on human health and the environment;
- § assisting Levi Barnabas, Arctic Bay's Nanisivik Mine Community Liaison Coordinator; and
- § using media tools, such as this newsletter, the community radio, the ad channel and public meetings to spread information.

If you would like to speak to Patrick about your concerns, or if you would like some more information on issues related to the Nanisivik Mine Closure, please contact him at:

Telephone - (867)-439-8195

Email – nunavutwaterboard@nt.sympatico.ca, or through Levi Barnabas at (867) 439-8277.

Minister Akesuk's Arctic Bay Presentation

On Tuesday, October 15, 2002, Nunavut's Minister for Sustainable Development, the Honourable Olayuk Akesuk, gave a speech in Arctic Bay about "Working together for a positive legacy from the Nansivik Mine closure". His speaking notes from this presentation are printed here.

Twenty-eight (28) years ago on June 18, 1974 the Minister of Indian Affairs and Northern Development, the Hon. Jean Chretien signed the Strathcona agreement which the Mineral Resources International to create the Nanisivik Mine. It was Canada's first Mine above the Arctic circle and in fact the federal government owned a 18% equity in the mine.



Since Breakwater Resources announced the closure on Nanisivik Mine late last year, the Government of Nunavut has been very busy in dealing with various planning and regulatory issues concerning the closure. The lead department in coordinating government activity is the Department of Sustainable Development. My Deputy Minister chairs the Deputy Minister's Steering Committee on the Nanisivik Mine Closure.

Working directly for this group of Deputy Ministers is the Nanisivik Mine Closure Working Group which is led by officials in my department. We have also developed a very close working relationship with a Hamlet Working Group which represents all of the people of Arctic Bay. The support staff for this group is partially funded by

my Department of Sustainable Development. We have seconded the expertise of Mr. Florian Lemphers as Nanisivik Project Manager for the Government of Nunavut, to help us in the strategic planning and coordination around the mine closure. Mr. Lemphers also worked on mine closures in the Yukon. We are also just finishing the recruitment of a Inuit speaking Trainee to work closely on the project.

Current coordinated activities by my department through a variety of GN departments or agencies includes:

- § Participation in the Nunavut Water Board Regulatory process and the Nunavut Impact Review Board process.
- § Assessing the detailed costs with transferring housing from Nanisivik to Arctic Bay. The feasibility study is now underway, a consultant has been chosen and we expect results by the end of November.
- § Mothballing GN structures in the Nanisivik townsite to protect assets over the winter.
- § Developing socioeconomic strategies with your community from the socioeconomic study we completed with you, to deal with the impacts on Arctic Bay.
- § Looking at alternative uses for the townsite, providing that townsite soil contamination can be cleaned up according to established environmental and health standards. Officials from the Environmental Assessment and Health areas of the government will be presenting more information on this later.

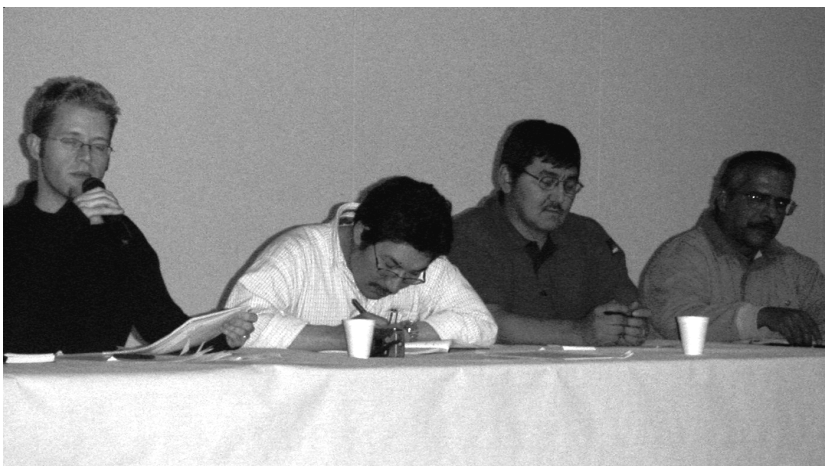
- § Working closely with your community to provide assistance in understanding regulatory and technical issues.
- § Finding effective ways provide to get surplus GN assets from Nanisivik to Arctic Bay so they can be of use to community residents. I heard that you had a very successful furniture “auction” here in the last while.

Our staff have been meeting with Federal officials and agencies and also briefing Nunavut Tunngavik staff concerning GN activities around the mine closure and opportunities for cooperation. There is onerecommendation made by the socio-economic impact study, however, which I would like to address today. That recommendation is - that we publicly recognize those from this community who played such an important role in the development of the Nanisivik mine. We must not forget that there are some people in this community who have been involved in mining development here for as long as forty years, dating back to the period of exploration for the mine site. Among the first workers in the mine were Inuit from this community. For me, this is one of the most important legacies of the Nanisivik mine – the recognition of the contribution the people of Arctic Bay have made to the mining industry of Nunavut. The Nanisivik mine may have closed, but the participation of Inuit in the mining industry of

the future is assured in large part because of the contribution to this mine made by the people of Arctic Bay.

I want to propose to you that this community and the individuals here who worked in the mine at Nanisivik should be publicly recognized for their contribution. How this should be done is something I believe the community should decide, but my Department is prepared to provide assistance for this purpose, including financial support. Consideration might be given to holding a community feast, and making presentations to long-serving mine employees. Senior mine staff from Nanisivik might be invited to attend this event, so that their contributions to the community can be acknowledged. Perhaps a memorial to the mine should be erected, or a fund crated to support young peoples' education. The press release put out by the Federal Government in 1974 hoped that the Nanisivik mine would be a shining example of northern mining development.

My government wants to ensure that the mine closure occurs in an environmentally responsible manner, that we work together with other governments to mitigate the socioeconomic impacts of the closure on Arctic Bay and the people of Arctic Bay and we maximize the number of jobs for people from Arctic Bay and Nunavut in mine the reclamation process. Thank you.



Farewell to Arctic Bay

When I came to Nunavut I had never been to Iqaluit or Arctic Bay before. I have lived in Cambridge Bay, Fort Smith and in Whitehorse in the Yukon. I have lived and worked in all 3 territories over 28 years. I have done many different jobs in my work but I have to let all of you know that the job as Nanisivik Project Manager for the Government of Nunavut has been one of the most enjoyable jobs I have ever done.

The work is not complete but there is now a much greater understanding of what needs to be done to ensure that the people of Arctic Bay and Nunavut benefit from the closure of the mine. I hope the new Nanisivik Mine Closure trainee Billy Curley works very hard for you, particularly in pushing for some real work to be done on the socioeconomic impacts that have happened to Arctic Bay.

When they asked me to come to Nunavut, they asked me to come for 4 months. It is now just about 5 months and it is time for me to go home now to be with my Yukon friends, my family, my wife, my children and my grandchildren.

I have made some very special friends in Arctic Bay. You have made me welcome in your homes and in your day to day activities. You have shared your lives with me. I cannot tell you how much that has

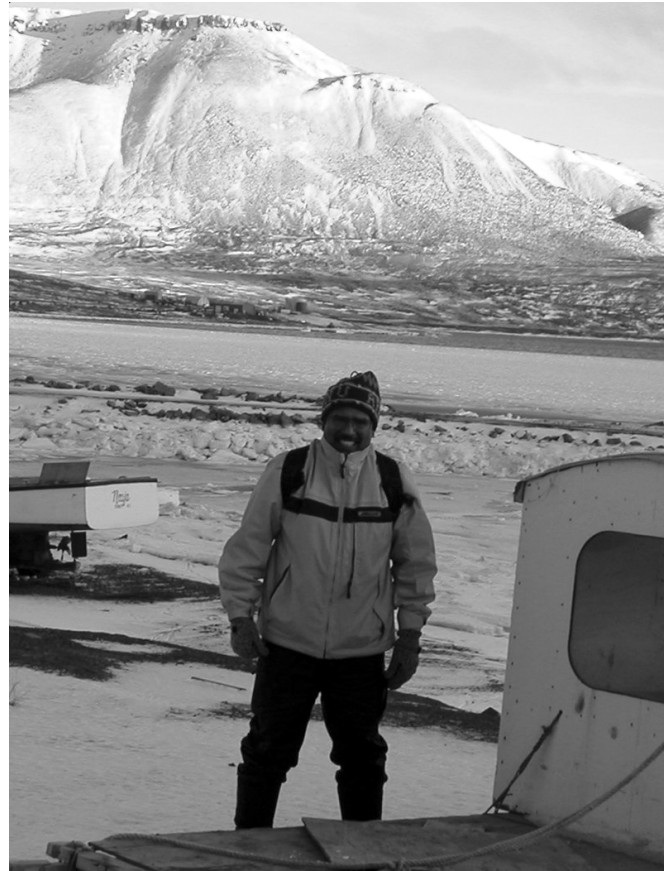
meant to me. The people of Arctic Bay will always have a special place in my heart. Thank you for allowing me to work for you.

God Bless you all.

Florian Lemphers
November 17, 2002



Florian with new Nanisivik Mine Closure trainee, Billy Curley



**REPORT OF THE COMMISSIONER OF THE ENVIRONMENT AND
SUSTAINABLE DEVELOPMENT
CHAPTER 3 – ABANDONED MINES IN THE NORTH**

SUMMARY

By

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Nanisivik Coordinator, Nunavut Water Board

On October 22nd, 2002 Johanne Gelinas, the Government of Canada's Commissioner of the Environment and Sustainable Development, presented her annual report to the House of Commons. Commissioner Gelinas's job is to examine government departments and to deliver recommendations to Parliament that will promote better environmental protection and sustainable development within the Federal Government.

FACT

INAC estimates that restoring abandoned northern mine sites will cost Canadian taxpayers a minimum of \$555 million.

The report examines the history of INAC in discharging its responsibilities for abandoned northern mines. The Commissioner identifies two major problems with INAC's handling of abandoned mines: the first is the lack of progress in restoring abandoned mines for which INAC has inherited responsibility; the second is INAC's role in ensuring that mining companies presently operating in the North will pay for the clean-up of their operations and not leave Canadian taxpayers with the bill.

FACT

INAC has budgeted up to \$26 million dollars in the current fiscal year for the care and maintenance of abandoned mines to prevent water contamination and protect human health and the environment.

Among other things, the Commissioner examined the issue of Abandoned Mines in the North. This is a topic of interest to the community of Arctic Bay considering the imminent closure the Nanisivik Mine. The good news in this case is that CanZinco Limited, the owner of the Nanisivik Mine, has stated publicly on several occasions its firm intention to close and reclaim the mine to the standard required by regulators such as the Nunavut Water Board. Additionally, CanZinco's parent company, Breakwater Resources Limited, has confirmed that it will guarantee the financial security required of CanZinco. However, in a complex world market, no company big or small is immune to financial difficulties. In the event that CanZinco declares bankruptcy and "walks away" from its responsibility to clean up the site, Nanisivik will join a growing family of abandoned northern mines under the care of Indian and Northern Affairs Canada ("INAC").

SOURCES OF THE PROBLEM

The report cites several reasons why there are so many abandoned northern mines, and why it is taking so long to clean many of them up.

Firstly, there is the lack of financial and human resources within INAC to deal with the problem. The situation deteriorated in 1998, when several heavily contaminated mines passed into the responsibility of INAC. INAC has not assigned a lead agency within the department to deal with the problem, and there appears to be no standard approach to managing the abandoned sites.

Secondly, there have been significant delays within INAC in tabling policy crucial to dealing with abandoned northern mines. After many years of development, INAC has approved two important policies regarding the problem: the *Contaminated Sites Management*

FACT

Some sites will require management indefinitely, as permanent clean-up will not be possible.

Policy and the Mine Site Reclamation Policy. There are separate policies for Nunavut and the Northwest Territories.

Thirdly, but not the least important, has been the issue of security deposits. Security deposits

are sums of money set aside by mining companies to ensure that, if a mine is abandoned, money will be available to restore the site. For many older abandoned mines, the amount held as a security deposit has not been equal to the required restoration cost. That was true in the case of the Nanisivik Mine, which is why the Nunavut Water Board decided to increase the amount of the security deposit in the 2002

Closure and Reclamation Licence.

There are several reasons for the historic inadequacy of mine security deposits: prior to 1993, legislation did not exist to permit INAC to require full financial security; secondly water boards, whose task it is to set the amount of security, have sometimes underestimated restoration costs; thirdly, some companies have not posted the required security because of financial problems. In 2002, for example, CanZinco failed to post its required million-dollar security deposit for the Nanisivik Mine, allegedly because of financial problems.

RECOMMENDATIONS TO SOLVE THE PROBLEM OF ABANDONED NORTHERN MINES

The Commissioner has submitted several recommendations to Parliament to promote better management of abandoned mines by INAC. They include:

- § securing adequate human and financial resources to implement long-term solutions;
- § establishing priorities for restoring abandoned mines;

- § implementing a long-term management plan for dealing with contaminated sites;
- § reporting publicly on water compliance and enforcement actions;
- § updating guidelines on preparing mine closure plans;
- § working with water boards to ensure that appropriate security requirements are set; and
- § establishing clean-up cost estimates and reviewing those estimates regularly.

CONCLUSIONS

INAC has the complex and costly task of maintaining and cleaning up abandoned northern mines. At this time, it lacks the financial and human resources to seriously tackle this issue, and it has instead been managing the problem largely with a

“b a n d - a i d” approach of containing and treating contaminants.

INAC has made good progress in recent years in developing policy to deal with mine closures and abandoned mines.

It has made improvements in setting adequate financial security for companies operating in the North, having adopted a goal of one hundred percent security for new mines opening in the territories. The Nunavut Water Board has endorsed that principle in the case of the Nanisivik Mine and other mining operations in Nunavut. The question of older mines is more difficult to resolve, and the Canadian taxpayers may end up paying for some or all of the clean-up costs.

FACT

Four abandoned mines, Colomac (NWT), Giant (NWT), Faro (Yukon), and Mount Nansen (Yukon), represent almost 90 percent of INAC's environmental and financial burden for abandoned northern mines.

FACT

There are 17 abandoned northern mines that have been listed as “high priority” contaminated sites. Only three of those mines have been cleaned up. One is North Rankin Inlet Mine in Nunavut.