INTRODUCTION – Tuesday, June 5th, 2007

FACILITATOR (Nick Lawson): I don't see Jeannie here for the opening prayer, so I'd like to introduce Peter Kritaqliluk to give us the opening prayer.

Opening Prayer

MR. KRITAQLILUK: (No Translation)

FACILITATOR: My name's Nick Lawson. I'll be facilitating this week. And for those of you using the headsets, channel one is English, channel two Inuktitut. I'd like to introduce Ron Roach, the chairman of the Nunavut Planning Commission for some introductory remarks.

Welcome from the Nunavut Planning Commission

MR. ROACH: Good morning, everybody. On behalf of the commission, the staff of the Nunavut Planning Commission, I'd like to welcome you to this workshop on uranium exploration and development. I'm very pleased that we are hosting this workshop with our partners: the Nunavut Water Board, the Nunavut Wildlife Management Board, and the Nunavut Impact Review Board. On behalf of the workshop partners, we would like to welcome the speakers, who have travelled to Baker Lake to support our discussions this week, and our invited guests. We would especially like to welcome the elders and the community members who are joining us this week to share their knowledge. We are looking forward to some interesting discussions and, in particular, what the people from the Kivalliq region have to say on the topic of uranium development.

In closing, I would like to remind everyone that no decisions are being made at this meeting. We are here to share information, experiences and perspectives. The schedule is tight and presenters need to stay on time. We realize that there are many different views on this matter and we expect that everyone will be treated with respect. Again, thank you for coming and I hope you enjoy your stay here in Baker Lake. Thank you.

FACILITATOR: Thanks, Ron. I'd like to introduce the Mayor of Baker Lake, David Aksawnee. If you'd like to come up and say a few words, please.

Welcome from the Hamlet of Baker Lake

MR. AKSAWNEE: (Begin Translation) Thank you, facilitator. Good morning, Inuit, non-Inuit. First of all I would like to thank you and welcome you, and thank you for holding your workshop here for the next three days. It's going to be very beneficial to everyone and I would like to welcome everyone. And our guests. And if you're related to anyone here while you're in town please don't be shy, don't hesitate to approach one of us or anyone. But I am sorry to say that I'm not going to be here to attend the meeting or workshop. I have a commitment to travel. This was planned some time ago, so I'm going to carry on with my duty and I wish to welcome you. Feel welcome, feel comfortable. Like I said, if you have any relatives or friends in town here do not hesitate to anyone, that you can communicate with anyone here. And also, if you have an E-mail address please give us your E-mail before you leave our town. Thank you.

—Applause

FACILITATOR: Thank you, Mayor. Now I'd like to introduce Sharon Ehaloak from the, executive director of the Nunavut Planning Commission. Sharon.

Introductions

MS. EHALOAK: Thank you, Nick. First of all, I'd like to take an opportunity to welcome everyone. It's great to see everybody here and I hope you're enjoying Baker Lake's hospitality. So far it's all been good feedback from last night.

I'd like to introduce to you our partner board members and EDE's that are here, as well as our commissioners. You've met our chairperson, Ron Roach. And I'd ask each person to just stand up so the audience knows who you are when I introduce you, please. We also have with us on, beside Ron, Peter Kritaqliluk. Peter's our vice chair. So they know who you are.

---Applause

We have for, I was just looking where Thomas was sitting. Sorry. The interim chair for the water board, Thomas Kabloona.

---Applause

And the acting executive director for the water board, Dionne Filiatrault.

---Applause

For the Nunavut Wildlife, Nunavut Wildlife Management Board Chairperson Joe Tigullaraq.

---Applause

And Jim Noble, the executive director for the Wildlife Management Board sends his regrets. For the Nunavut Impact Review Board, Chairperson Lucasie Iagutaniq (sp).

---Applause

And he told me to tell everybody who can't say his name his AKA is Luke Smith. Their executive director, Stephanie Briscoe (sp).

---Applause

Our commissioners: Robert Sitanak (sp).

---Applause

Commissioner Pauloosie Kilabuk.

---Applause

The famous Commissioner Frank Ipakohak.

---Applause

As well as another famous person on our commission, Mr. Paul Quasa (sp).

---Applause

And another one, Mr. David Newman (sp).

---Applause

I'd like to introduce the NPC staff that is supporting the workshop as well. Our Director of Policy Adrian Boyd.

---Applause

Our Director of Regional Planning Brian Aglukark.

---Applause

He's here somewhere. I'm not sure. I think all of you met him when you came in and got your packages. There is he is; right at the back. Heidi Weibe. Heidi's got the handouts. She's our policy specialist.

---Applause

Annie Ollie, who is our interpreter/translator.

---Applause

As well, Mr. Nick Lawson. And Nick will be facilitating and keeping us to our time lines and cutting us off if we're getting over our time line. We also have with us Mary Hunt. Mary is one of the translators. She's over in the booth. As well as Angie Akimoonik (sp). She's in the booth, I believe, or beside the booth, as well. Percy Kabloona and Trevor ... Trevor, I can't say your last name. So, Trevor's from PIDO, over there. And he's doing our sound.

So what I'd like to do right now is thank the Hamlet of Baker Lake. They were, provided a lot of support with assisting us and getting the workshop organized. And Robert is the assistant SAO and he gave us a lot of help, as well as the other hamlet staff. So we'd like to recognize that.

As well as the Koolik (sp) Energy Corp. It was difficult for us to get space and accommodations, so they've provided us with a house and we're grateful for that.

I'm responsible for all of the administration for this week. So if we have been assisting you with travel or your meal per diem, I have all the cheques. So I'm the one you want to see at the break.

Finally, we would like to stress that our agenda is very, very full. We want to be respectful to everybody. So Nick will be adhering to the time lines and we'll give you a warning when you're getting close to your last couple of minutes. But we've asked you to stay to the time line and we're going to stick to that, other wise everybody will not get their presentations done.

And again, this is a workshop. It's an information exchange. We want to be respectful to everyone who has come here to speak. And each institute of public government – that's all the IPG's – have their individual processes and their mandates under the Nunavut Land Claims Agreement, so this is an information exchange and each process with NIRB and with the water board has another opportunity through the regulatory regime for issues and concerns when reviews are being done.

With that, I'd like to turn it back over to Nick. Thank you very much.

FACILITATOR: Thank you, Sharon. I'd like to introduce Adrian Boyd to give us a little overview on why we're all here.

Review Term 3.5 of Keewatin Regional Land Use Plan

MR. BOYD: Good morning. The Nunavut Land Claims Agreement requires that land use plans be implemented based on the jurisdiction of different organizations: government, Inuit organizations, and the boards that are here with us today. The purpose of this meeting is to implement a specific term of the Keewatin Regional Land Use Plan which was approved in June of the year 2000. This term 3.5 is contained in your information packages. Specifically it reads:

"Uranium development shall not take place until the Nunavut Planning Commission, Nunavut Water Board, Nunavut Impact Review Board, and the Nunavut Wildlife Management Board have reviewed all the issues relevant to uranium exploration and mining. Any review of uranium exploration and mining shall pay particular attention to questions concerning health and environmental protection."

As background, the original Keewatin Regional Land Use Plan, which was developed in the early '80's, reflected the controversy from the 1980's over whether uranium mining should be permitted in the region. Some people suggested that uranium exploration and mining should be banned. Other suggested that there should be a moratorium until some of the questions are answered. And others felt that the uranium mining should be treated like any other mineral. As a result of the different views, both the territorial and federal governments approved a land use plan which requires the four institutions of public government to review the issues. And that is why we are here this week.

In closing, it is important to recognize that no decisions will be made at this workshop as each board has its own separate responsibilities under the Nunavut Land Claims Agreement. Each board will take the information that's collected here and review it as part of the regulatory process when they're reviewing future applications for exploration and development.

And with that, thank you and I hope you enjoy your week.

Purpose of Meeting and Review of Meeting Procedures and Agenda

FACILITATOR: Thanks, Adrian. As Adrian said, we're not here to make decisions, but to share information and raise any issues of concern and have some discussion about them. Again, we're focussing on uranium exploration and mining as a land use activity and not any one particular project or project in the future. The results of the workshop, including all the presentations delivered, will be prepared in a report at the end of the workshop and submitted to the IPG's according to the condition in the plan and I think we'll be available in other forums as well.

We do have a very packed agenda and it will require the attention of everyone to help stick to that agenda and at times I will be perhaps a little short on people. I'll give them a warning and if they do run into overtime I, unfortunately, will cut them off so that we're, we can get away at a decent time each day and get through all the speakers.

Days one and two, as you see in your agenda package, are largely devoted to

presentations to a wide variety of perspectives on the topic. There has been an update in the agenda, even as of today. Updated agenda as of yesterday is posted on the back wall. I'll go through some updates today, but essentially we're still day one and two is the presentations. There will be limited opportunity for questions on, during the presentations, but we've set aside Wednesday evening and all day Thursday for discussions and opportunity to talk about some of the issues of most concern.

On the evening of day two, that's Wednesday, specifically set aside time for community presentations either from community representatives attending here or the public from Baker Lake. And in an attempt to manage that and allow everyone equal opportunity, we do have a sign up sheet on the wall there for Wednesday night. We'd like, if people would like to make a presentation, if they could sign up in advance and that will help us schedule things.

We have speakers speaking with notes, as well as presentations. Many of those presentations are available in hard copy on the back table, as well as some other information. Speakers have been asked, have been given a time frame and they'll be asked to stick within that time frame. I've got a couple cards with a five-minute and one-minute warning which I'll be flashing at you and I'll be coming to take the microphone when the one minute is up. I'll try and encourage you as best as possible to complete your talk within that time.

Speakers, we are going through simultaneous translation, so we'd like you to speak slowly, give the translators a break once in a while. Try to avoid the use of jargon or difficult terms that may be difficult to translate.

If you do not complete all of your presentation, rest assured it will be, if you've provided it to us digitally it will be included in the workshop report. If there is time after your presentation within the allotted time there will be an opportunity for one or two questions and a brief answers, responses. For those questions that get raised, but not an opportunity to answer or you don't get a chance to raise those questions, we will be taking notes and we'll review those questions and prioritize them for discussion on Thursday. There is again on the side board, if you'd rather just write a question or an issue up there there's a spot dedicated to that. So we'd encourage you to use that.

When speakers will obviously be using this microphone or the one at the front here, but for people asking questions please speak into the microphone. There's a button there to turn it on and please identify yourself.

During our Wednesday night and Thursday open sessions we are asking that the speakers and resource people be available to respond to question and issues, but that it's an opportunity for those who haven't spoke to raise their issues and concerns.

Again, we need to be respectful of each person's views, time allotments, and needs so that we can get through the agenda and have an opportunity to discuss the issues that are real important. And I will, my job this week is to try and keep us on track. I ask that participants also keep their comments on track with the specific session or the speaker. We'll have an opportunity to address some other questions Wednesday night and Thursday. Or feel free to speak to people after the session or during breaks.

Just regarding today, we're scheduled to go from 8:30 to 5:15. Lunch break 12:00 to

1:30. And we'll have some coffee breaks, one in the morning and one in the afternoon. For those of you that haven't noticed yet, there's washrooms just out the back. We've got two fire exits right here and hopefully we don't need to use that. But if you want to engage in conversation that's potentially disruptive to the speakers or to the rest of the people in the room just ask that you maybe go out in the lobby.

People that aren't staying at a hotel may be staying at billets that would like to go to a hotel for meals, the Igloo Inn has advised us that 11:30 to 1:30 and 5:00 to 7:00 daily will be available for walk-in traffic, guests that aren't in the hotel.

Just getting to today's agenda, we've got a number of changes here that from the package that appears in your agenda and, first and foremost, understand the plane with KIA and NTI delegates has not yet arrived and we will make a switch after the initial presentation by INAC. We'll have the industry overview with Brian Reilly and Jerry Aicott (sp) and then our break, and hopefully KIA and NTI will be here by then and we'll resume regular schedule.

Just a few other changes on today's agenda. The first session by INAC will be delivered by Karen Costello and for KIA, when they do arrive, Joe Kaludjak (sp) will be presenting rather than Stephen Hartman and Fred Ashley is replacing Kevin Sissons. And I believe Laura Kaumak (sp) on behalf of the GN will be speaking.

Finally, thank you to the organizers, our hosts, and speakers, and all participants. Please enjoy yourself and speak, speak your mind here, but remember, we're not making any decisions and we need to respect each person's perspective. If there's any questions with the agenda or schedule please see me when I'm not up here and we'll try and work things out. How is the sound? Good? Translators, we okay? All right.

Well, with that I'd like to introduce our first speaker of the day and that's Karen Costello with INAC.

CURRENT POLICIES AND ACTIVITIES

Overview of Current Exploration Activity on Crown Lands

MS. COSTELLO: Smart-alec government employee immediately blocks the screen. Hi. My name's Karen Costello. I'm the district geologist with Indian and Northern Affairs Canada. I don't come here alone. I've come with some colleagues and I'd like to take this time to introduce them. Like me, they accepted the invitation from NPC to present. I have with me Bernie MacIsaac. He's the manager of Mineral Resources. He's in the front. Beside him we have Jennifer Haywood, who's with our communications department. And we have Vicki Mark, who is our land use planner specialist with our Environmental Assessment Branch. Another resource person I'd like to point out is Dr. Charlie Jefferson with the Geological Survey of Canada. He's over at the side.

So we were asked to give a presentation on uranium exploration activity in Nunavut. So this is a very, very brief snapshot. Uranium is a common metallic element. It is found in the rocks. It is found in the soil. It is found in the water. It is naturally occurring. And it also has the potential to produce large amounts of energy.

What I'm going to touch on briefly are Nunavut exploration expenditures, a little talk on uranium in Nunavut specifically, the areas which are being actively explored, and

exploration field methods.

So as far as Nunavut exploration expenditures, what is happening in the territory? Our current resource development climate is quite robust. We have a diamond mine, Jericho, in operation. We have two gold projects, Metabank (sp) and Doris North, which are advancing. And we have one base metal project, the Highlight Project, which is in the environmental assessment process. All commodity prices – gold, copper, zinc, nickel, uranium, iron-ore – have been staying at high levels. The last price for uranium was $125 US a pound. Exploration expenditures are at record levels. As you may have heard in recent media reports, we've had close to $200 million spent in mineral exploration last year and they are projecting about $225 million for 2007.

Natural Resources Canada conducts a survey of the industry. For 2006 these are their figures: As you can see, about $93 million was spent on precious metal exploration. That's gold and silver. Diamonds, which have received a lot of attention in the last few years, are about $40 million in exploration. Iron around $27 million. Base metals, $21 [million]. Uranium, a little bit under $15 million. And some other work on things like sapphires, carving stone, and coal fill out the rest. And this represents about a 10 percent increase over the 2005 expenditures.

I'm going to take a closer look at uranium exploration as that is the subject of this workshop. As this graph shows, we have seen a significant increase in exploration for uranium in the last few years, but all commodities have seen an increase in exploration due to the increase in commodity prices. Of this $14.8 million that was spent last year, about $5.3 million was spent in the Kivalliq. We are tracking about 20 projects in the Kivalliq that involve uranium exploration; five of them are planning drilling for 2007. Our estimate for 2007 right now stands at $23 million being spent on exploration and we expect that this number will change as more companies announce their exploration projects.

So I mentioned that uranium is naturally occurring. Hundreds of uranium occurrences are known throughout Nunavut. Some of them are small clusters of boulders. Some of them occur in an outcrop, 10 feet by 10 feet. There are clusters of occurrences. There are large numbers within the Kitikmeot and within the Kivalliq. Uranium occurs in a variety of geological settings, so it occurs in all sorts of different rocks. What we are seeing right now is that exploration occurs most often and near sandstone type rocks, similar to those that occur in northern Saskatchewan. At present, there are two known uranium deposits in Nunavut.

The Mountain Lake deposit is in the Kitikmeot. It's about 100 kilometres southwest of Kugluktuk. And it occurs in the sandstone. Now, these are not new deposits. They've been known for a while. Exploration started in the Mountain Lake area in 1969 and the deposits were discovered in 1976. The amount of uranium ore that is estimated to be contained in the Mountain Lake deposit is 3,700 tonnes at a grade of 0.23 percent.

Closer to Baker Lake we have the Kiggavik deposits. Now, this one occurs underneath the sandstone. It was formed in the rocks, the basement rocks under the sandstone cover.

Just to give these folks a few minutes to settle. I think I'll go on.

The first zone at Kiggavik was discovered in 1977. Two others followed in 1987 and 1988. And their names were the End and the Andrew. Collectively these deposits are what is referred to as Kiggavik. The amount of uranium ore that is estimated to be contained in the Kiggavik deposits is around 59,400 tonnes. So quite a bit more than Mountain Lake. And the grades range from 0.28 to 0.44 percent.

There is uranium exploration occurring all over Nunavut. In this map, it's very, very basic, but it shows the whole territory and it shows how much, how the uranium exploration is distributed across the territory. By Kugluktuk, in this area, is this is the focus of uranium exploration and Mountain Lake is situated here. It's very close to the Northwest Territories border. As we get closer to central Nunavut, within the Kivalliq, we have this broad area that is being explored and this is where Kiggavik lies. This large area in bright green is the Thelon Wildlife Game Sanctuary. There is no exploration in there. There is no mineral claims, there is no prospecting permits. Further to the south, near the four corners, there's some uranium exploration going on. And up here there are some prospecting permits that were issued in February of this year.

Zooming into the Kivalliq, this is a map that shows the distribution of the different land tenure parcels. In dark green, these are the prospecting permit blocks. In the medium green and the light green, these represent mineral claims. There's a small little block of red. These are mineral leases. The dark pink is Inuit-owned land subsurface parcels. These are Inuit-owned land surface parcels. And all of these symbols represent the different commodities being explored for. The red diamonds, of course, represent diamond exploration projects. We have some yellow squares, which are gold. We have a couple of nickel exploration projects. This is the Ferguson Lake project. And there's some nickel exploration in the Chesterfield Inlet area. You see all of these U's around and these represent the uranium exploration projects that we are tracking. The work is being done by a variety of companies. In total, across Nunavut we're tracking 18 companies actively involved in uranium exploration.

I said we'd touch a little bit on exploration field methods. When a company acquires ground they have to explore for it. More often than not they'll start off with some form of airborne geophysical survey. Using typically either a fixed wing or a helicopter towing a bird. This is the plane that was in Baker Lake last September flying, doing some work for a company. In conjunction with airborne surveys a company may do some mapping prospecting sampling, which would involve setting up a small camp. As a follow up to airborne surveys, a company will pick select areas for ground surveys and this, in conjunction with the work of mapping, prospecting, and sampling, will lead to the identification of drill targets.

Now, all of these activities are not unique to uranium exploration. They are the same type of activities that are done whether you're exploring for diamonds, gold, copper, zinc, lead, silver. One of the unique tools that is used in uranium exploration is some form of a scintillometre. We cannot see radiation, so the geologists use this scintillometre as a tool to determine if it is present. And this lower picture shows one of the types of scintillometres that is used.

So, Nick, I think I kept to my time line. I kept it very brief. If you have any questions during the course of the few days please feel free to approach myself or my colleague from the GSC Charlie Jefferson, who's involved in uranium research. Geoscience

research. So thank you.

---Applause

FACILITATOR: Thanks very much, Karen. As I mentioned earlier, we had a bit of a switch in agenda to accommodate the late arrival of a plane. So I'd like to welcome up Jerry Aicott and Brian Reilly, who are going to give us the industry overview.

INDUSTRY OVERVIEW

Overview of Exploration, Development, and Decommissioning Activities and Sequence, Common Practices, and Mitigation

MR. AICOTT: Good morning, ladies and gentlemen. I'd like to first thank the NPC for inviting the uranium industry to participate in this workshop. We very much appreciate the opportunity to come here and speak to your people today. My name is Jerry Aicott. I'm the director of licensing for AREVA Resources Canada Inc.

Today I'm offering you some opening comments as to what our participation will be within the conference and I'd like to start by saying that I'm representing two uranium development companies today. Both the one I work for, AREVA Resources, and also Cameco Corporation. And the two companies, AREVA and Cameco, are the two major uranium companies in northern Saskatchewan. We operate all the mines. And we've been doing so for many years. We, would very much appreciate the opportunity to share our thoughts with you today.

Following my brief introduction and introductory comments I'll be turning it over to Mr. Brian Reilly, who's with Titan Uranium Inc. And he's going to lead you through a discussion on the uses of uranium, and the exploration and development processes that go with uranium mining developments.

As Nick has told us, the purpose of the workshop today is to review the issues. AREVA's been in the business of mining uranium in northern Saskatchewan for about 30 years now, a little more than that. We've had a fair amount of experience and over those years we've developed and become a little bit better all the time and we continuously improve in our methods. We would like to share that with you. We're not here today to tell you that uranium mining is the 'it' and by itself the 'key' to wealth and prosperity in Nunavut. But I believe it can contribute to the success of the mining industry in Nunavut in terms of offering jobs, training opportunities. Certainly there will be business opportunities. There would be revenues, royalties and fees for governments, and there'll be also some other spin-off benefits.

As I had mentioned earlier, the uranium mining industry in northern Saskatchewan has been active since the late-1950's. And over that period of time we've learned a lot and we've become much better at what we do. That's the message that we'd like to bring to you today and in the next two days is that the uranium industry is now a very modern mining industry and we use up-to-date technology. We operate in a manner that's safe for the people who work for us. And safe for the public at large. We also are very careful with the environment. We make sure that we're not adversely affecting things like fish and wildlife in our operations. And we strive to become better and better at that. Also here during the next few days you'll be able to hear from some of the people of northern Saskatchewan who will share their experiences with you with regard to their

involvement with the mining industry.

As with any industrial development, though, there is always some environmental trade offs. Any time that you have an industrial development there will be a footprint. There will be some disturbance required. We're very aware of that and we're prepared to study each of our projects intensively before we go forward with them so that we understand the impacts that we're going to have on the environment and we're going to minimize those impacts to the maximum extent possible. We realize that we have some learning to do before we can go ahead with any project and we'll be looking for some knowledge from you people who knew very well what the situation of the environment and the culture here in the North is. We like to work with the people of the area in general and you have some very talented and well-versed organizations, such as the Caribou Management Board. We hope very much to be able to work with people like that to assist us in our learning.

I'd like to emphasize today that the uranium industry is not here today to talk about any specific project. We're not at that stage yet. We have much learning to do before we can go forward with any sort of a project description. Before that happens we'll be not only doing our homework to understand better what the magnitude of the project is, but we'll be consulting with you on a regular basis about the specific project. Today our focus is to give you a general impression of how the uranium mining works and we're going to focus on our experiences in northern Saskatchewan.

We've gone through a number of processes in Saskatchewan in order to upgrade the industry and make ourselves better. The first one happened back in 1979. It was called the Beyda Board of Inquiry. And it was a general investigation of future mining in Saskatchewan and it came out with a number of suggestions for improvement. That really elevated the bar and the uranium mining industry very much improved as a result of that set of hearings.

Later on, in 1991, when some of the rich uranium deposits in Saskatchewan became known – such as Cigar Lake and McArthur River – we had another panel and it was a joint federal-provincial panel. Dr. Don Lee was the chairman of that panel and he will talk to you about the recommendations a little later on in the conference. We'd like to follow Dr. Lee's presentation by telling you how the uranium industry actually responded to those recommendations.

In conclusion for my opening remarks I'd just like to emphasize the fact that our involvement in this workshop is to carefully listen. We'd like to hear your concerns, understand what your feelings are, and we will do our best to address those both now and in the future. This is the approach that we've taken in northern Saskatchewan. And I believe if we can do the same type of thing here we can show that we can adequately protect your environment, and ensure the health and safety of your people, and respect your culture.

With that, I'd like to ask Mr. Brian Reilly to come forward. Brian's going to talk to us a little bit about the uses of uranium and also the techniques involved in exploration and development. Brian?

Uranium Exploration and Development 101: Industry Overview, World Markets, Long-Term Potential

MR. REILLY: Well, good morning, ladies and gentlemen. It is indeed a pleasure for me to be here to talk about a subject that's important and in a place that's especially dear to my heart. And it's great to see lots of familiar faces in the audience. I want to begin by thanking Sharon and her team, Adrian and Heidi and Brian, for their hard work in putting this workshop together. And I'm especially pleased that the workshop is held here in Baker Lake. My business card today says Titan Uranium, but for a long number of years I worked with AREVA Resources and prior to that Cogema (sp). I've been coming to Baker Lake since 1996. So I've spent many ears in the field here. I've got to know the community and some of the people. And particularly the land. So I'm very pleased that this meeting, one, is being held today and, secondly, it's being held in Baker Lake.

So in fact, I've been invited to provide an industry overview. And it will be rather high level, but separated into two parts. The first will look at uranium in terms of its use, supply, and demand. This will look more at the market of today and why all the excitement. Karen showed a wonderful slide of increased exploration dollars and there's good reasons for that and I'll cover that briefly. And the second part is focussed on the uranium exploration development operations of northern Saskatchewan, because that's probably the jurisdiction closest to Nunavut. Although I can tell you, I can give you examples and a similar story from other jurisdictions around the world.

So to begin with, Karen has already introduced very briefly uranium as a very common element. The key in terms of exploration is to find it in concentrated forms, i.e. mineral deposits. And that's the task and I can tell you it's no easy task. I'll direct you to a wonderful poster on the wall here. Charlie Jefferson is a world-renowned geologist. If you want to learn about what uranium is I would suggest you spend time with Charlie. And you need to have lots of time with Charlie because he doesn't know a short story. But you've got expert advice right here in your community. Please take advantage of that.

The beauty of uranium is its ability to produce large amounts of energy. The question, what is uranium used for? And first and foremost it's to produce clean energy. This is a fuel pellet. And I'll talk about the uranium cycle, but after mining the pellet is formed that's used to provide power for the nuclear reactors. This is the pellet here. Thumb size, thumb-nail size. It's equivalent to about 700 litres of oil, about 800 kilograms of coal. And I remember when I first showed to an audience which was primarily Inuit the guys got all excited. They wanted to know how they could fuel their snow machines with this pellet. But I can tell you, the technology is not there yet, but it does have a tremendous amount of power in terms of generating energy. It's also used for nuclear medicine research and other industrial applications. But I can tell you, Canadian uranium is not used for the manufacturing of nuclear weapons.

This little cartoon here summarizes what happens in a nuclear power reactor. And the power plant is shown here in terms of the containment structure and you can think of this like a kettle, in its simplest terms. That pellet is used in the fuel rods and ultimately provides the heat for nuclear fission in the reactor vessel. So the heat, which is shown in the red, is used to heat water, produces steam, it drives the turbine, it continues on to power the generator and ultimately provide the electricity into the grid, which powers many of the major cities around the world. It's a power plant in every other way with the exception that it's the nuclear fission, the nuclear reaction which drives the power.

That's the beauty of this source of energy. Everything is contained within the structure. Water is critical, so when you find these power plants they're typically along these large bodies of water, river systems or oceans or seas, and that's because you need cooling water which doesn't integrate with the plant but comes in and condenses the steam and then flows back out into the large body of water. So that's when you see the power plants. You'll see them adjacent to large bodies of water.

So what's happening around the globe today? Well, there are about 30 countries using nuclear power to generate electricity; 435 are operating. The majority of these are in the States today. There are over 100 power plants in the US. Twenty-eight are under construction or being refurbished, 64 are on order or planned, and another 158 proposed. You'll hear lots about the nuclear renaissance. And this has been anticipated for the last number of years, but I can tell you unequivocally that the nuclear renaissance has arrived. The US has 25 projects which are expected to be submitted in 2007. These are construction and operating licences. Once the US starts building new power plants, look out. Asia is already building. The Westinghouse has an order for four power plants for China. AREVA and their French power plant, they have two under negotiation. Finland is building, France is building, and the nuclear renaissance has arrived.

This is an interesting slide and I'll spend a little bit of time because I think it provides some really interesting and really powerful information. It look at the world electricity generation in terms of fuel share or market share. Where is the power coming from on a global scale? Nuclear power represents about 16 percent of the market share on a global scale. This is about the same percentage in Canada at this time. And I'll come back to the nuclear component.

Coal represents 39 percent of the electricity generated around the world. Saskatchewan, for example, 63 percent of its electricity comes from coal. The biggest user is China these days. I can tell you that there's issues around CO_2 emissions, but mining of coal is also a very dangerous proposition and there's an estimated 5,000 miners killed each year in China alone working in the coal mines. Particularly China will see more attention as the Beijing Olympics come around in 2008. They've got issues around schedule and budget, as all Olympic games do. But one of the biggest tasks they're going to be up against this year is providing clean air so the athletes can compete. I can tell you, that's probably going to be one of the toughest tasks for the Beijing Olympics in 2008. So clearly there are some issues around coal as a source of energy.

Oil represents about 10 percent of the market. The biggest issue or one of the biggest issues with oil is where it comes from. Most of it comes from the Middle East, which is an unstable environment, and many countries dependent on oil – and the US again another great example – is really worried about their supply of oil from an unstable part of the world.

Gas, which was once relatively cheap and abundant, is very expensive today. The supply is dwindling. All of these sources of energy coming from the hydrocarbons, which represents about 60 percent of the market share – so this is a significant number. These are sources of energy that emit CO_2 and, boy oh boy, if you haven't been reading about climate change in the last year or two you must be living under a rock. The G8 meetings

which begin tomorrow will have climate change as one of the top agenda items. Certainly it has huge implications in this part of the world when we look at changes to climate.

Hydro represents 19 percent of the market share and if you're blessed with hydro, as Manitoba and Labrador are, for example, it's clean, it's cheap, it's a wonderful source of energy. But again, you have to build dams, you have to divert waterways. Each of these sources of energy comes with its own issues. And if you're not blessed with hydro then it's simply not an option.

The other, and this is I think a real interesting category and represents only one percent, these are the renewables: solar, wind, biomass. And there's absolutely no doubt in my mind and in others that there's a much larger opportunity here than has been realized. And you'll see more and more of these renewables in the mix and they absolutely must be in the mix. But there are issues clearly around the windmills and turbines and how they impact the environment. And they're good when the wind blows, but not when the wind blows. Solar has a similar issue. When it's not sunny there are limitations. So this market share will increase and the expectation, the hope is that is indeed the case. The issue is, will it sustain base load electricity? That's not obvious.

So I come back to nuclear. And there are four main issues with nuclear energy from my perspective. The first is cost. And that's the capital cost to build these plants and the operating cost. These plants today, the new generation plants are competitive on both fronts. And certainly when you look at pending carb (sic) impacts with some of the hydrocarbons, nuclear is going to be more attractive in terms of its cost moving forward.

The second issue is safety. The new plants being built, if you remember the model of the reactor with the containment structure, these things are going to be constructed to the extent that a 747 won't be able to penetrate these containment structures. So the new generation plants are indeed safe.

The third issue is proliferation, i.e. the use of uranium for other than electricity purposes. And we have in the world today countries like North Korea, we have Iran, who have uranium programs, nuclear programs. It's not clear about their objectives. It's not clear about where they're going with their programs. But we have institutions like the United Nations, like the Atomic Energy Association, and others who are doing their best to regulate and to inspect these countries. And I can tell you they're looking at various sanctions now where if these countries don't fall in line they're going to be hit where it hurts most, and that's in their pocketbook. But this issue of proliferation is one that has to be considered.

And last but not least is the issue of nuclear waste and the waste material that comes from the power plants. It's radioactive and it has to be dealt with properly, it has to be stored properly. As a geologist I think the solution is relatively simple. You put it back in the ground where it came from, into stable geological environments. There's scientific, technical solutions, but it's not clear whether there's the social or political support for some of these solutions yet.

And I'm looking, Jerry, for my glass case. I missed it. Anyway, I had a little prop, oh, yeah. A prop. It's a substitute prop because after visiting the facilities in France where they deal with the waste, for a family of four for about a 20-year period this is the

amount of waste that would be generated from nuclear power. It's absolutely minor in size and when we look at the waste that comes out of the hydrocarbons, one, we know where the waste is, we can define it. It's how we treat it that's the issue of the day. Thanks, Bernie.

Before we leave this slide I want to make a couple of comments that the expectation by the end of this century is that the need for electricity will increase four fold. So four times what we have today. The population today is about 6.5 billion in the world and it's anticipated by the end of the century we will have about 10 billion people. So the question and the challenge for industries like ours is how in the heck are you going to increase your consumption four times with a world population going from 6.5 to 10 billion and ... if we come back to the chart, this number absolutely has to increase in terms of renewables. Ontario is looking at phasing out coal. Britain has already done so. And other jurisdictions are really struggling with what to do with coal. Oil and gas, there's limitation in terms of supply and cost. Hydro has its limitations. Nuclear absolutely has to be part of the mix moving forward. And many of the countries around the world are coming to those terms today. Jerry, please.

So why nuclear? It is a large diversified resource to provide base load electricity. There are no greenhouse gas emissions from the production of nuclear power. The economics are favourable today. It's safe. And it is accepted by decision makers. And in Canada, Prime Minister Harper is looking at new bills in Ontario in the not-too-distant future.

Where does the uranium come from? This is a simple pie chart that looks at primary production mining. This is where the uranium is mined today. Canada is the world leader. All of this production comes from northern Saskatchewan. Number two is Australia. Australia has only three mines, but they have one that contributes a huge amount of uranium. Number three is Kazakstan and then the rest comes from Africa, Russia, a little bit from the US and so on. So these are the countries producing the uranium. What's interesting is when you look at the reserves, the remaining uranium in the ground from these various countries, Australia's number one, Kazakstan number two, Canada number three. So when you look at future production one has to be aware that Australia and Kazakstan has an even greater potential than Canada. And I had the privilege to work in Kazakstan for a couple of years and this is a country that's since 1991 had its own independence, very aggressive in terms of business, and the Kazaks predict that by 2010 they'll be the number one producer in the world. And I'll tell you, they may well be able to achieve that.

That previous slide looked at primary production or uranium for mining. There are other sources of uranium out there referred to as secondary supply. There's a great example of a program, Megatons to Megawatts; 1993 the Russians and the Americans got together after the cold war and said, look, we have this stockpile of nuclear warheads that contain vast amounts of highly enriched uranium. And the deal was made to take the highly enriched uranium, to dismantle the warheads, down blend that uranium, use it to make fuel to power plants. It's a classic sword to plowshares formula and to date 12,000 warheads have been dismantled. The program is scheduled to go to 2013 and it will be interesting to see what happens, whether they will continue. There's rumour that the Russians need the uranium for their own power plants and to date this has been a very successful program.

Okay. Why all the hype? Why has Karen shown us slides where expiration expenditures have increased from a few million to almost $25 million in Nunavut and Saskatchewan and other jurisdictions show similar trends? It's basic and simple supply and demand. This looks at the world wide market in terms of supply and demand. For example, this line here represents 60,000 tonnes and the calendar year shows 1980 all the way up to 2019. So the demand for uranium shown in this dark black line, this is the demand for fuel to power plants. And it's projected out into the future.

In terms of the supply side, the blue represents primary production or uranium coming from mines. And up until about 1989, 1990, supply exceeded demand but, as you can see at this juncture here, demand exceeded supply and that's when people get really interested in markets. But there's also, there's this component here. Inventories where utility companies or power plants have existing inventory sitting in their store rooms and this inventory is anticipated to be good until present day. The highly enriched uranium, this is the uranium coming from the dismantled nuclear warheads. The take-away from this slide is that moving out into present day that the demand exceeds supply by a tremendous amount and this gap that's present today is not going away. There will be new primary production expected to come on stream in the next few years, but the gap remains. And any time you have a strong demand and a weak supply prices start to move north and that's what we're seeing today where the spot price has increased tremendously. And I'll show that on the next slide.

Spot price of uranium is typically quoted in US dollars per pound, U308. And if we look at this over time we see some very interesting trends. Back in the early '70's the spot price was under $10. There was nothing exceptional happening in the market until the Arab oil embargo. With that oil shock the demand for uranium increased. There was lots of interest in production and the spot price increased to over $40. This is referred to as the last boom. This was the time that Urangesellschaft found the Kiggavik deposit, for example. There was lots of exploration and lots of interest in Uranium.

In 1979 a power plant in the US – Three Mile Island – had a leak and in 1986 there was a catastrophic event in Chernobyl and the market went flat. It ran flat for about two decades. There was very little interest in our business and the spot price in 2000 was about $7.50. It wasn't until the fall of 2003 at McArthur River in northern Saskatchewan, there was a flood. And if you remember from the previous slide, demand exceeded supply back about 1980, but it was this flood at McArthur River that the market woke up and said, geez, there's some real issues here on the supply side. McArthur River at that time represented about 10 percent of the market share. Since that time the price has been on a run. It's up to, in fact, $133 US today. My belief is that there's still a long way for this price to go. How far it goes we don't know. There was a time when even discussing $100 a pound would, people would laugh. They thought you were crazy. Now $200 a pound doesn't scare people away. It will level off at some point. When, it's not clear. But a couple or three years would be reasonable. And then it will settle. But there's no expectation it will settle down at this level. It will settle up at a level here that will make uranium deposits in the past that weren't economic looking more attractive, and Kiggavik would fall under that category.

The other take-away here is that when the price goes up you see a short lag, but you see expiration expenditures following it in the same trend and that's what we're seeing

now. That's what Karen showed us in her slide. Spot price goes up, expiration expenditures go up, and it was at this time in Saskatchewan that the first major discoveries were made. The expectation is there will be more discoveries made, particularly in northern Saskatchewan and perhaps in Nunavut with this increased exploration expenditures for uranium around the world.

Okay. I'm going to summarize the first part of the session to say that nuclear power, it's a CO_2-free energy and that's its primary use. The supply side is such that there's a lot of pressure on primary supply, i.e. a lot of pressure on mining production. And there's a shrinking secondary supply. The inventories that are available are shrinking and the nuclear renaissance that has been much talked about, it has arrived and the demand side will continue.

Okay. We're going to shift gear. Nick, how much time do I have? Ten minutes. Okay. This next part looks at the cycle of, from expiration to decommissioning and the example comes primarily from Saskatchewan. The first part in terms of exploration, Karen has already talked about, Jerry, so we can go through this relatively quickly. At least the expiration phase. This is northern Saskatchewan. All the production in Canada comes these mines and these are world-class deposits. These are the richest ore bodies in the world. For reference, here's Lake Athabasca, here's Walliston Lake, and these are the main mines.

The comment I'll make about expiration – again, Karen has covered it – it's really like finding a needle in a haystack. It's high risk business, it's difficult business, but it's exciting, it's fun, and if you're successful there's great rewards. So high risk, high rewards. This is a camp from northern Saskatchewan. I have other slides from the Arctic and the imprint is minimal at this stage in the game. We start with airborne surveys. We move to work on the ground. And again, the whole process is to vector in from a large area – Francois can tell you this story as well as anyone in the room – to get closer to a potential area. And the real test is when you can bring a drill out. These deposits are typically buried at some depth and the only way to test these is with a drilling rig. Everything is supported by helicopter. These rigs are relatively mobile. You break them down, you sling them with a helicopter. So the footprint is minimized. And best practices taken from – and Saskatchewan has been a great jurisdiction. The regulators from Nunavut have been down looking at some of the best practices done in other jurisdictions.

But it takes time. From the time you start your surveys to the discovery 10 years, if you're lucky. Often you're not. And then from discovery to the production stage is another 10 years. So this is not for the soft hearted. It's high risk, but high reward. It takes lots of time, lots of patience.

This is a summary slide and you may not be able to see it in the back of the room, but it looks at the cost of exploration on this scale over time. And when you start your initial work doing your airborne survey and other first-order expiration work, this takes anywhere three to four years. You zero in on a target, you get on the ground, it takes another three or four years. So already you're up to perhaps six, seven, eight, nine years and you haven't found anything yet. Testing with the drill, this is the most expensive part of the program, but it can take you 10 years before you even define something that might even be considered as a deposit. At this time you've spent

probably about 50 million bucks. And then once you've found a deposit you zero in with more detailed drilling and other studies. So at the end of 10 to 15 years you've got something that looks interesting, you've got a deposit defined, you've spent $75 million. This is before you go into environmental assessment, before feasibility study, before you go over and see your friends like Stephanie and Dionne and go through the licencing and permitting, which can be another significant period of time. So this discovery to production time frame is a long one and it's an expensive one and projects today, numbers like $750 million, $1 billion are not unheard of to take a project to the production phase.

Then we go into mining. Again I'll use Saskatchewan as an example, but there are other jurisdictions that tell the same story. This is a McArthur River mine in northern Saskatchewan. It's the highest grade uranium mine in the world. It's not a pick and shovel operation, as has been known historically. This is a high-tech industry using robotics. These are remote controls. I don't know where Joe Kaludjak, I've got a slide of Joe Kaludjak. There's Joe working one of these remote controls. But that's the business today. It's high tech. It's lots of research development. And particularly in high-grade deposits where you want to minimize the contact between the employee and the ore robotics is the way to do it.

This is a conventional open pit from MacLean Lake operation. The mine they are going to start at Meadow Bank, the open pit won't look any different than this. And these are more conventional truck and shovel operations. So the uranium mining is no different than the gold mining or base metal mining at this stage of the game.

Then we get to the milling phase, and I know there are many in the room who have visited MacLean Lake mill. This was constructed less than 10 years ago. This is a state of the art facility. It reminds me of a hospital when I walk through parts of it. It's clean, well ventilated, and absolutely state of the art.

The ore that comes from the mine that has to be put through a ball mill where it goes through a grinding process and gets to a fine sand size mixed with water. The uranium is dissolved from the rock using different chemicals, such as sulfuric acid. Then it goes again through a number of processes where you separate the solids from the liquids. The uranium stays in the liquids. The solid you send out to a tailings management facility. And then the end product is yellow cake, which is a powder. So you have dry the material, produce a powder. You put it in a 45-gallon drum, pack it on a truck, and it goes south. And the yellow cake at this stage is relatively benign. Ten metres from the transport truck there's no radiation. One metre from the truck it would be similar radiation exposure to flying in an air plane. So then it goes south.

The wastes, and we're going to hear more about this from Jerry later, the solid waste – and when I say solid, it's like a clam chowder consistency, not quite a caribou stew, a little bit softer – and it's pumped out into a pit that was mined in the past. There's some really remarkable engineering we'll hear about later about how these tailings are treated. And then the liquid is treated in a water treatment plant where you separate the uranium and other heavy metals. You send those out to the tailings Management area. The water goes through a series of settling ponds and then it's discharged back into the environment when it reaches the requirements.

Radiation protection. This is probably the most significant difference between uranium mining and milling that other types of mining and milling. We have Doug Chambers who's an expert at this and he's going to tell us more about it later in the program. But I wokred underground for a number of years at Cluff Lake. You wear a badge, it's well monitored, you get the reports on a timely basis. As a worker you sleep well at night and the exposure is kept within the limits that the agencies dictate. Three minutes.

Environment. We're going to hear lots about environment today. All I want to say here is the regulatory requirements, I tell you, they're tough on our business. They're as tough as any other business in the world and we meet those regulations. When it comes time to work with Dionne and Stephanie we'll meet their requirements as well.

Decommissioning, this is former Cluff Lake Mine. When we first started trips from Baker Lake to northern Saskatchewan this was the site we visited. You wouldn't recognize it today. This is the first of the modern mines to be decommissioned. And this is Alex Flett (sp), the trapper. He's well into his 80's now. He had a cabin and a trap line at Cluff Lake before the mining arrived. He worked at the mine. Several of his children did. I'm not sure how much time he spends there now, but we've built him a new, AREVA built him a new cabin. But at the time all he was interested in was satellite TV and wrestling. So as long as he had his wrestling stations he was a happy camper.

And then the fuel pellet which sits down here, the only comment I want to make is that when the yellow cake leaves the mine sites in Saskatchewan it goes through more processing and none of this is done in Saskatchewan, which is unfortunate. Most is done in Ontario, some in the US, and AREVA sends most of their product to France. And this is a hot political issue today. There's an election expected some time later and I can tell you there are many in Saskatchewan that are looking at value-added parts of the nuclear cycle and it's going to be a hot political item during the election.

This is a power plant from France. Some of the best wines in the world come from this area. This is the Rhone Valley. Clearly the nuclear power energy and the vintners can work side by side in France.

I've got two more slides, Nick, and hopefully that will keep us on schedule. This term 'sustainable development' means different things to different people, but I'll tell you what it means to the uranium industry. Historically companies were driven by profit. And boy, we need to make a profit because that's their business. We have shareholders to satisfy and we're in the business of making money, that's clear. However, it won't be done and it's not being done without it respecting the environment and social and economic benefits going back to impacted communities. And that's our interpretation or meaning of 'sustainable development.' And companies today, they have triple bottom lines. They have to produce in terms of profit, but boy oh boy, they better be sharp on the environment side and on the social and economic side.

So in summary, I use Saskatchewan as an example, but I can also tell you other jurisdictions where expiration to decommissioning has been a positive experience. Mining is a temporary use of the land. It is a non-renewable resource. And the focus is on sustainable development. I've often said, maybe it's not best for a white guy from the South to come tell you this story, but there are guys in this audience – and I don't know where Rene Rediron (sp) is and Harry Cook are coming later – listen to their story and

it's a pretty compelling story.

Thanks very much for your time and we're probably right on the bubble here, Nick, but I'll be around for the next few days and would be very willing and would enjoy some of your questions. Thank you very much.

---Applause

FACILITATOR: Thanks very much, Brian and Jerry, for the overview. We've adjusted the schedule slightly, as you know, so we'll take our coffee break 10:00 to 10:15 and we'll be back with Joe Kaludjak (sp) from KIA. So we'll see you at 10:15 and, Joe, we'll see you ready to go. Thank you.

—BREAK

CURRENT POLICIES AND ACTIVITIES (Continued)

Kivalliq Community Meetings on Uranium Development and Overview of Current Exploration Activity on Inuit Owned Lands

MR. KALUDJAK: (Begin Translation) – and so because of that I'm able to speak today. When first thing when we signed the land claims agreement the Inuit became partners and were able to use the land as they pleased. It also said those that are wherever they are were able to vote on the land claims agreement. And the Inuit, the land that Inuit hold which were following the land claims agreement.

As we are talking about uranium for development and future purposes inside Nunavut and also mainly inside the Kivalliq region. It has been within the last 20 years concerning mining companies and also Baker Lake, who have worked, some from Rankin and a lot of people who have worked in mining companies, especially at this point, while they're looking for and working on. And other mining companies. As an example, Nanisivik and also when Rankin Inlet was also a nickel mining town. This is not the first time Inuit have seen mining companies and they're concerning the mining, the gold, diamond, and obviously the prices for those in the world have gone up. I can tell you today that inside Nunavut that there is a lot of work to be done concerning along with uranium and other minerals and the Inuit lands, there are all kinds of good mineral areas inside Nunavut. Concerning as near Baker Lake, mainly east, west of Baker Lake there is a lot of uranium near here.

You may have heard back in 1980 when (inaudible) were exploring they wanted to open a mine when we first heard about it back in 1980. Also the people of Kivalliq were really against that. Not to open a uranium mine. And it was obvious at that time concerning weaving, concerning uranium were really as to how we had also not heard exactly what uranium, what (inaudible) was going to do at the time. We had not heard. And since the land claims we have a lot of other work that we have done.

Also, in the Inuit owned lands are concerning uranium is the one of which we're here today. The Department of Environment and water resources and also Nunavut Planning Commission are really working well today inside Nunavut and so the Inuit can also sit now amongst you. And we can also work with them and hear as to what they're doing. Back then Nunavut Tunngavik and KIA concerning they had a mining symposium concerning mining policy. Had set up as to how mining companies could be dealt with

firstly. The other is also, we also dealt with a water policy and using the Inuit. And the third things, which is really well known today, the mining companies, you know, used to leave a lot of stuff behind. But concerning mining as we're dealing with this today, wherever they're mining. When they're closing that they should return the land to the way it was, which is now a policy today and well established. And the fourth, concerning the policy of which we're still working on today concerning uranium policy today, we're still working on that with Nunavut Tunngavik and also, and the regional organization. Now concerning that or dealing with uranium. And as they're working on uranium policies the caribou Management board and the, and also for those who have other concerns or issues on the subject.

And also again in 1999 and 2000, between 1999 and 2005 we've gone to see the northern Saskatchewan as to how uranium mining looks like and at that time, at those times we had three, we saw three separate mine sites. From the different regions: Kitikmeot, Baffin, and Kivalliq region. And a lot of people from Baker Lake have gone to see the mine sites. And also hunters and trappers and spoke with First Nations people. And also to see how they work with uranium companies. And also concerning, and as to how well the environment is being protected. And also back in 2006 KIA and the regional Inuit organizations of the Kivalliq region and Nunavut Tunngavik had proactive approach to educate the beneficiaries in the region concerning uranium development.

And also, in the communities as to how in the seven communities, we spoke with seven communities as to what they do and we visited each community and the community and we had visited each community and spoke with HTO's and hamlet councils and also speak with the community members of the seven communities and we had all had asked when we were talking, when we went to go and talk about uranium. As we were visiting the communities, the Inuit and non-Inuit, there were about 40 that visited as they were talking with us and we were talking with them. And we were working with them to work as to how when we went to go and speak on uranium.

As we held the community conferences we were asked different as to how the caribou, which is our livelihood, as to how the caribou are affected. And also as to the tailings, as to where they would have the tailings would go. And these are the types of things that we discussed. And concerning uranium, if there's any spills as to how they dealt with spills, oil spills or any other concerns. Especially for those where uranium that were radioactive would decide if they were to be transported outside of Nunavut we wanted to hear as to how they would be transported south.

And also we also water was discussed, water Resources was discussed as to how they're affected, including the fish in the lakes and the rivers. These were a lot of the concerns that we spoke about.

And the other concerning uranium as to how many people could be working in these mines and also concerning the different cabins and what type of cabins they would be using. And as we were meeting with the community members and we looked at as to how the people thought about uranium. They are also well documented concerning uranium. For the different uses that uranium and also concern as to whether the environment will not be grossly affected and it seemed to see whether the community members in each community might support uranium mining.

And in the last month the people from Saskatchewan, as we expected, they were not able to make it of the uranium and also, we also, the First Nations had also come to speak as to and we had been expecting them and they've already been here, I've heard, and it is obvious that they come here and that they were also able to make it here. And also concerning uranium.

The resolutions that we've had as to whether they can work on uranium, we've visited all the seven communities in the Kivalliq region and asked what type of development they're going. Repulse, okay, Baker Lake, Rankin Inlet, Repulse, Arviat. We're also waiting to visit Whale Cove and. So we have not completely given them as to, we're still expecting maybe in two or three weeks as to whether they're going to support uranium mining. We're still waiting to hear reports from them.

I'm told I have a minute, but inside the Kivalliq region it is very important, it is a concern. Maybe not necessarily towards uranium concerning other mining. We're also waiting and expecting other exploration company. And also we have a little more understanding and also how to deal with or with uranium companies, especially inside Nunavut. There has been $200 million that have been, that were spent on exploration. And to date we have heard there are 54 active agreements on the Inuit (inaudible) lands inside Nunavut.

And the Nunavut land claims have been signed the Inuit ... as to whereas try and keep collect information on any issues the Inuit might have, including from the water ... And they also have, you know, they can also support their communities concerning. But lastly, concerning jobs and also many benefits that depend on exploration. Obviously also very helpful to the business is that concerning diamonds and also uranium as were their ... And so lastly, as my time is up, I want to concerning uranium development there is a lot of uranium in the Kivalliq region and the Inuit as there are other developments. The Inuit can also be included in the development and the community. You can support the water resources concerning and also Inuit. There's the KIA could be dealing with and also whenever there's going to be any development the Inuit could also be involved and I'm very thankful as I support you in the dealings that you deal with concerning all these issues. Thank you. (End Translation)

---Applause

FACILITATOR: Thank you very much, Joe. We haven't seen James Eetoolook yet, so we're going to move on with the agenda and when James does arrive we'll see if we can find another spot for him. We're moving into a section now on regulatory processes and we've got the IPG doing some presentations, followed by the Canadian Nuclear Safety Commission. So I'd like to introduce Brian Aglukark from the planning commission to start us off. Brian's the director of regional planning based in Arviat.

REGULATORY CONSIDERATIONS

IPG Processes and Considerations

MR. AGLUKARK: Thank you. I guess to start off, when an applicant wishes to do some work on the land, the proponent, they first apply for a land use application or a permit to any of the authorizing agencies. In this case, I've listed INAC, KIA, the GN and NWT. There are other authorizing agencies that are not listed. It's important, I guess a

little bit of information in terms of making sure that the application is filled out properly to speed up the process. There are times when you see applications from the authorizing agency that are not quite complete or hard to understand. So that can delay the process. Could either week or two weeks to go through the authorizing process.

The agency will forward that application to NPC. NPC then looks at or reviews the application form. Once that process is done we forward that determination to NIRB and they have the screening process. The delays usually come between the way the application is filled out, lacking information, and/or the proponent themselves not responding to the questionnaire that is sent to them. Once NIRB and NPC are completed their process the application and determination of the review and screening is forwarded back to the agencies and then from there the permits are issued back to the proponent.

I can only speak on behalf of what NPC does in terms of its review. I'm sure we'll be hearing other IPG's on what their processes and their time lines are. Like I said, once NPC receives the application from the authorizing agencies, NPC generates a location report. This location report assists NPC in ensuring the location of the project or the work that the proponent wants to do is not located in any particular special management areas. For example, the caribou protection areas. From there we generate a questionnaire and this questionnaire is set up in a way so that all the answers on that questionnaire require an answer of yes. If we see a no on that questionnaire then that questionnaire would be, I guess, forwarded to the commissioners to let them know that there's a potential for a project not to be conformed to the Keewatin Plan. Staff member will finalize an application that doesn't conform to the plan as that decision is made by the commissioners themselves. And only with relevant terms for their requirements. For example, if a proponent is not going to any type of low-level flying that particular question will be included in that question for that questionnaire.

The land use plan application is responsible for the proponent review to ensure confluidity. Like I said, the timing within NPC to the review can take anywhere from one day to two weeks. We try and complete this review process at least within 10 working days. And usually the delay will be either the way the application is filled or the response time from the proponent. That sometimes can two or three weeks, a month or so.

Once we get the questionnaire back from the proponent we review that application and the questionnaire to ensure that it conforms with the land use plan. Like I said, we try to complete this review process within 10 days. Most of the time it goes within that time frame of at least 10 working days. There are delays, like I said, usually from the application or the person that filled out the application and from the proponent themselves. It would be important to note, I guess, that NPC is not giving any kind of time line or a specific time period to complete its review. NPC can legally hang on to an application as long as they want or until they're happy with the information on the application, until it conforms to the plan.

That's a brief look on NPC process.

FACILITATOR: Thank you very much, Brian. I appreciate your adherence to the time and saving us some. Next I introduce Stephanie Briscoe, executive director of Nunavut Impact Review Board for a brief overview and maybe a few minutes of Brian Stein.

MS. BRISCOE: Good morning. It's good to be here. I'm going to give a general overview of the nerve process and hopefully stay within my 10 minutes. The Nunavut Impact Review Board was created by Article 12 of the Nunavut Land Claim Agreement. And our primary purpose is to protect and promote the existing and future well being of Nunavutmiut and the environment.

The board is comprised of, today, six members. Although a full board composition would actually be nine: eight regular members plus a chair. We are a decision-making body made up of individuals from across Nunavut.

NIRB makes project-specific decisions about whether or not proposed activities and projects within Nunavut should occur. We assess each project based on its own merits. Each project is different and, therefore, must be assessed that way. Often times we are referred to as the environmental assessment board.

Environmental assessment is the process used to estimate possible impacts of a project on the environment. Some of the elements that we consider include the land, the people, water and marine areas, fish and marine animals, air, wildlife, archeology, and traditional land use.

The public is an important part of the NIRB process. Public concerns and comments matter and can make a difference in how activities and projects happen. These comments and concerns may be used to develop terms and conditions which are included in the various regulatory permits, which the proponent must follow in order to work in Nunavut.

I'm going to talk a bit about the screening process. Under the land claim there are two major processes and action for the NIRB board. Those include the screening, a Part 4 screening, and the Part 5 review process.

So as Brian talked about just a few moments ago, applications are forwarded to NIRB either by the planning commission in areas where there's an approved land use plan, or directly by authorizing agencies. The applications are checked for completeness by board staff. Once assured that we've got a complete application we then send that information out to a distribution list, which is comprised of various governments, agencies, Inuit organizations, public organizations, including your hamlet councils, local hunters and trappers organizations, and any other interest group that may have contacted the board wanting to be included as part of that distribution. The purpose of that distribution is to seek comments from those parties from an environmental assessment perspective and to identify any possible concerns that they may have with the project.

Ultimately there are four decisions which the board can make under section 12(4)(4) of the land claim. One would be to approve the project with specific terms and conditions. Another would be to send the project for further review, which I'll speak about in a few minutes. A third option that the board has is to abandon a project or they can return for clarification. And I note here, 12(4)(c) should be the clarification and (d) should be abandonment. My apologies.

So the most common decision the board makes would be 12(4)(4)(a) decision, which is to approve a project with specific terms and conditions. The most important in terms of a

major development project, the only decision the board has made to date on that would be to send a project to review. That would be, as noted here, a 12(4)(4)(b) or a NIRB Part 5 review. It should be noted that it's up to the Minister of Indian and Northern Affairs to make the determination on whether it's a NIRB review under Part 5 or whether it goes to a federal review under Part 6.

When might a review be required? If a project is noted to have significant adverse effects on the ecosystem, wildlife habitat, or Inuit harvesting activities; if it's noted to have significant adverse socioeconomic effects on northerners; if it generates significant public concern or if it involves technological innovations for which the affects are unknown. Those are reasons that would send a project to review.

So what is a review? Simply put, it's a more detailed environmental assessment of a project. It includes more public consultation and involvement. And it's an opportunity to get more information on the specific impacts, both good and bad, and better identify mitigation measures for these impacts.

The review process itself includes five major components. So we see here there's scoping, which does include guidelines; the development of an environmental impact statement; a public comment period; a final public hearing; and ultimately a decision by the board. All of these phases are opportunities for the public to become involved more thoroughly in the NIRB process.

So I'll begin with scoping. Scoping is one of the ways to identify, one of the first ways to identify which components of the environment might be impacted by a project and to find out what people might think about that project. As part of the scoping process, NIRB will consult with interested persons to identify issues of concern in relation to the project proposal at hand, and it's a good chance for the public to make sure their questions and concerns are being considered and answered by the project proponent.

Scoping is done in a number of ways. The board itself will hold public meetings where people can attend and tell us what they think about the project. If they're unable to physically attend a meeting and they can write to the board and identify what their concerns might be. Or they can just pick up a phone and talk to any one of our staff and a record of that conversation will be noted and logged.

After scoping, the NIRB board will produce guidelines for the development of an environmental impact statement and these guidelines are like instructions to the proponent, telling them what they should include in the environmental impact statement. The EIS is simply a document that outlines the activities of the project and identifies the possible environmental and socioeconomic impacts. The proponent will also try and identify how these impacts may be mitigated. The EIS is a document that both the board and the public will review in order to determine whether or not the project can proceed.

So once the board has accepted the EIS they will then ask the parties to comment on it. The board will ask parties to comment on whether or not the information contained in that document is in fact true. All parties, including the public, participate in this part of the process. And comments received at this stage help to determine what may happen at the final public hearings.

The public hearing is the final step of the public review process and is the last

opportunity for parties to comment to the NIRB board. The NIRB hearings provide a public forum for the discussion of proposed projects where people can present their concerns and information to the board for consideration. The NIRB board gives weight and due regard to the concerns of elders and community members in the tradition of Inuit oral communication and decision making.

And finally, the board must make a decision. And the board at the close of a hearing can make one of two decisions, and that is to say yes to the project or no to the project. A third option that they have is to possibly adjourn the hearing and request for additional information before they can make a satisfactory decision. NIRB just consider all information tabled as evidence. And although the decision is made by the NIRB board it must be sent to the INAC Minister for ultimate approval.

Once a decision is made and we hear back from the Minister of Indian and Northern Affairs that he has accepted that decision, the board must then issue a project certificate which clearly outlines specific terms and conditions that must be incorporated into the various regulatory instruments that are being issued to the proponent.

The board also has an obligation under the land claim to monitor projects and one of the things that they've done with past reviews is to assign a monitoring officer to those projects. And that individual then works with the various agencies and the public and identifies whether or not the proponent is in fact implementing properly the terms and conditions of a project certificate. One of their main responsibilities is to report back to the board on how the project certificate is working and if, in fact, there needs to be changes to that certificate.

All government agencies are required to implement the terms and conditions as laid out in this certificate. And that's generally done with a meeting following the Minister's recommendation that the various government agencies will get together to work through who has what jurisdiction over what condition. And that's it. Thank you.

FACILITATOR: Thanks very much, Stephanie. You didn't really need Brian's extra time. I'd like to introduce Dionne Filiatrault, acting executive director of the Nunavut Water Board, for a similar overview about the water board's process.

MS. FILIATRAULT: Thank you, Nick. Thank you, all participants. I look forward to our discussions over the next three days. I'm going to just do a quick overview of the water board process, but also I took a little bit of a different approach and sort of linked it to the actual Keewatin Land Use Plan for this region.

So the water board itself is an institution of public government that was created under Article 13 of the Nunavut Land Claim Agreement. It's responsible for the use, regulation, and management of fresh water in the Nunavut settlement area. In 2002 we had the act for the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* passed. We are still currently working on the development of regulations to compliment the act. Those discussions are ongoing and are, sort of, on a monthly basis those are ongoing. In the interim, the board submitted an Order in Council to adopt the NWT Water Regulations to use those as an interim measure to provide some guidance to industry and anybody who's submitting requirements under the act.

As far as licensing goes, the board, there are no thresholds in the current regulations for

smaller uses of water. The only water uses that are exempt from applying for a water licence is domestic or emergency use of water at this time.

So an application is sent to the Nunavut Water Board. The water board process is very, very similar to the Nunavut impact review process as far as what we do, as far as checking it for completeness and sending it out to distribution to parties. Our very first check is to make sure that any application that comes in is to determine whether or not it conforms to the land use plan. Or if there's no land use plan in place, that document is sent directly to NIRB or the water board.

So there's two types under the existing regulations, two types of projects. Most smaller exploration projects fall within what we classify as a Type B application and these generally do not require a hearing. The board is bound on all applications that are submitted to it to hold public hearings. It's only following a public review process and an assessment of whether sufficient or significant public concerns have been expressed whether they waive the requirement to hold hearing. In general, Type B applications are processed by waiving the requirement. But again, that is the decision that is left to our board, which is comprised of eight members and a chairperson, similar to the Nunavut Impact Review Board.

Once we receive an application that's deemed complete and it's gone, we've received a NPC conformity assessment, we distribute that application to the public and the parties for at least 30 days. Smaller projects that do not require a hearing are exempt from screening under Schedule 12(1) of the Nunavut Land Claim Agreement. So once we receive the comments we review them. The assessment is provided to the board and the board makes a determination at that time to waive the requirement for a public hearing and issue the licence and under what terms and conditions that they issue the licence.

Once a licence is issued it should be noted that we do not assess compliance and monitoring for the actual licence itself. Any enforcement with respect to water licences is done by Indian and Northern Affairs Canada.

For major development projects, as Stephanie went into, the Nunavut Impact Review Board plays a key role. They will require screening assessments and it could go through the same process that Stephanie talked about earlier before it actually gets back to the water board for them to make any determination. When NIRB makes their decision it goes to the Minister. When the Minister comes back and NIRB begins to develop a project certificate, this is where our board, the water board and the NIRB board participate jointly in cooperating to make sure the project certificate will address the needs of the project. And generally at that time we would issue guidelines for a submission of a revised water licence application that gives more clear direction based on what's happened up until that point.

If the board, for a Type A the board is bound to go to a public hearing. Those hearing notices require a minimum of 60 days notice. Between the time that we receive a complete application and it's deemed complete we can also in there hold technical meetings with pre-hearing meetings to further develop some of the information so that the hearing is very focussed.

Once a hearing takes place, generally the board aims to have a decision out to the

Minister's office within 30 days. Similar to the Nunavut Impact Review Board again, for ultimate Type A licences the final sign off is done by the Minister of Indian and Northern Affairs. Under the act the Minister has 45 days to respond to his approval or rejection of a licence. Again, we issue the licence and our decision, and enforcement and compliance is done by INAC.

So in the Keewatin Land Use Plan land is defined to include inland waters. So as you're going through that document sometimes when you're looking at land or your reading and you're just discussing land, it's important to remember that that includes inland waters and indirectly includes the water board.

A lot of the land use planning principles that apply to, that are within the Keewatin Land Use Plan are similarly principles that the water board follows, is required to, either under the act or through the land claim agreement. So it's important for the board to protect and promote the existing and future well being of persons in the Nunavut settlement area and Canadians. And in our case it's to protect fresh water for existing and future use. We protect and, where necessary, restore environmental integrity. We are bound to give weight to the views and wishes of municipalities. We account for Inuit goals and objectives on IOL (sic) lands. Under Article 20, the water board has a rule in ensuring that compensation issues with respect to fresh water have been addressed before they are entitled to issue a licence or any decision to the Minister.

Again, we use traditional and local knowledge. There is distinctions between the regional land use plan and municipal plans, and we comment on local municipal plans. Issues with regard to external and internal boundaries, one of the issues that we will have in the very near future in dealing with water management and relating that to land use planning is in relation to boundaries and how we are going to set up water management areas.

So again, the NPC assesses for conformity. If it conforms, if it doesn't conform, what do we do? We are bound that we cannot issue a licence if it doesn't conform to a land use plan. These are just the categories that are actually listed in the Keewatin Land Use Plan. I just wanted to touch on those briefly and how, sort of, we fit into those categories.

So in the area of community use and local authorities it's important to make sure the residents are informed and they have input into regulation and management of water resources. As I say, we are bound by providing notice under the act, whether we issue rules for procedure – which I believe is 60 days notice to communities. We're bound to advertise any application within the municipality most affected by the project. In general, if the board goes to a public hearing those hearings are held in the community most affected by the project.

Environment protection. The water board does not have a role in national parks. We do have provisions to collaborate on trans-boundary issues. If there are impacts outside of Nunavut there is roles with respect to IOL lands, again, with respect to national parks.

Again, just to reiterate, the Nunavut Water Board has a role in addressing and ensuring that compensation issues are addressed. The land use plan deals with waste sites. The board is responsible for not only water use, but also waste disposal and its impacts into fresh water. So there's a lot of waste sites that we need to ensure are cleaned up

appropriately.

Pollution prevention. For any small exploration camps, any contamination, your solid waste, your sewage and how that impacts onto the municipal environment needs to be considered.

One of the major issues that we're faced with right now with respect to a lot of the exploration that's going on, especially within this region, deals with the back hauling of waste to municipalities and how that waste is impacting the local and municipal infrastructure. So that might be something that would be interesting to discuss over the next few days.

The water boards has requirements with respect to industry with respect to closure and restoration. The board has requirements under the act to ensure there's adequate security and that remediation is done.

Under the Keewatin Land Use Plan we need to further evaluate, and that's what's going to be useful about participating in this workshop, is to really get a good understanding of what people's public concerns are with respect to uranium development. The water board is guided by at present standards that are used in Saskatchewan.

Heritage resources in general, we just received comments from those parties on a regular basis through our application process.

The water board does not have a role in marine transportation. In marine waters. The only role is if the water board and or the other IPG's jointly agree to establish the Nunavut Marine Council then we can provide recommendations on marine issues.

And we regulate all-weather roads for their impacts to stream crossings and river crossings.

Scientific research permits. The water board licences the camps for this type of activity and ensures that remediation or abandonment reclamation is done. A licence for water use, waste disposal, and reporting of activities for those types of projects.

So in general, the water licences, we cover water use, construction, waste disposal, which includes solid waste, sewage, drilling waste. We have monitoring requirements in our water licences. We have provisions for spilled contingency planning and abandonment and restoration.

Our head office is located in Gjoa Haven, which is in the Kitikmeot region. And I can provide this information to anybody who'd like it later on.

As was stated, I'm the acting executive director and for any uranium exploration type of projects or any application that's made to this board, your key person to talk to are the licensing staff and the manager of licensing and the licence administrator. That's it.

---Applause

FACILITATOR: Thank you very much, Dionne. That concludes the session with the IPG's involved in regulation in a lot of different activities, including exploration and mining across Nunavut. Now I'd like to introduce Fred Ashley of the Canadian Nuclear Safety Commission, who deals specifically with uranium issues. And Fred's going to tell us about licensing new uranium mines in Canada.

Licensing of New Uranium Mines in Canada

MR. ASHLEY: It's quite hot, isn't it? I've got quite a long presentation. My name is Fred Ashley. I'm a project officer in the Saskatoon office of the Canadian Nuclear Safety Commission. My division is called the Uranium Mines and Mills Division and the main focus of this presentation today will be about the CNSC and licensing of new uranium mines.

With me is Angus Laidlaw (sp). He's a senior advisor with Non-proliferation and Export Controls Division out of our head office in Ottawa. We are here to provide you with some information on regulation of uranium mining in Canada and to answer any questions you may have on regulation of this industry. If we are not able to answer all of your questions we will be happy to follow up with more information when we return to our offices.

What I'm going to talk about in my presentation is outlined in this slide. First I'll give you a bit of background on who the CNSC is and what our responsibilities are in terms of uranium mining in Canada. Next I'll outline the examples of licenced uranium mine sites and where they fit into our open process. Third, I'll talk about compliance inspection programs, which includes working relationship with other federal, territorial, and provincial jurisdictions. Then we'll briefly talk about Canada's policy regarding peaceful use of uranium and describe the controls in place regarding who can buy Canadian uranium. And finally, some closing comments.

The CNSC's mandate and mission is to regulate the use of nuclear energy and materials to protect health, safety, security, and the environment, and to respect Canada's international commitments on the peaceful use of nuclear energy. So we regulate all things nuclear and we are the federal and principal regulator of uranium mining in Canada. We work alongside with federal, territorial, and provincial regulators in controlling all stages of uranium development and its end uses like nuclear power.

The CNSC employs approximately 600 people in various locations across Canada. Although most are located in our headquarters in Ottawa, as you can see in this slide, we have regional offices across Canada, located service, local centres of activity. Once such office, located in Saskatoon, regulates the uranium mining industry Canada wide.

The CNSC is governed under the newly enacted *Nuclear Safety and Control Act*, which is based on principles of best available science and risk-informed decision making. And openness and community involvement in the decision-making process. This legislation replaced the *Atomic Energy Control Act* of 1946. In addition to the act there are 11 regulations that set out specific regulatory requirements, as well as a wide range of regulatory requirements. The act and regulations give the CNSC the authority to issue licences, set the conditions of those licences for the purpose of protecting the environment, health and safety, and national security, and for enforcing compliance with those requirements.

The nuclear regulatory philosophy in Canada comprises two important principles. First, the licensees are responsible for the protection of health, safety, security, and the environment, and respecting Canada's international commitments. This means that the board of directors and management of the companies that we regulate are to be held accountable. Second, the CNSC is responsible for regulating licensees, assessing

whether the licensees are compliant with the act, regulations, and international obligations. These two principles are the basis of CNSC's regulatory philosophy. The CNSC's only client is the public, as it assures that persons and organizations that are subject to the act and regulations are properly discharging their obligations.

The nuclear industry in Canada is considerably larger and more diverse than in other countries. Some facilities to note are power reactors of which there are 22 reactors with four different operators in Canada. Uranium mines and mills, there are five active mines, two mills, and two main operators, as was noted before. Some waste management facility operators of which there are seven facilities and three operators. And we expect the industry to expand significantly in most of these areas over the next 10 years, with potential new uranium mines clearly in the lead of this process.

The variety of nuclear activities regulated by the CNSC is sampled on this slide. The first shows the use with medicine and research facilities. The second shows radiography to verify pipe wells. Third, uranium mines and mills, which we'll talk about. And all the way to nuclear power plants.

As shown on this slide, the CNSC is actually comprised of two components. One is the commission itself and the other is the staff of the commission. The commission is an administrative tribunal made up of as many as seven individuals. It is independent of all influence, be it political, governmental, public interest groups, or from the private sector, and it is not required to consider economic limitations in decision making. The commission does not express its views with respect to the pros or cons of alternative energy strategies. If a provincial or territorial government decides it wants a nuclear facility then the commission will ensure that those facilities are designed, constructed, operated, and decommissioned in a manner that is protective of the environment, people, and national security. And in accordance with the mandate.

The other component of the CNSC is the staff. There are about 600 staff members consisting of managers, inspectors, specialists, support, and administrative staff. Staff bring recommendations to the commission for decision and follow up on commission decisions. The staff administers the licensing and compliance program, which I'll describe further here in a moment.

This complicated slide will look at the regulatory framework for regulation of uranium mines in Canada. If a company wants to mine or mill uranium it has to apply for a licence. In conjunction with the application, the company has to complete an environmental impact assessment, as was mentioned, which is an extensive process administered by CNSC in conjunction with the Canadian Environmental Assessment Agency and other regulatory stakeholders.

If the application is acceptable the CNSC will hold a licence hearing to discuss details of the project and to hear comments from the public. If the applicant is successful a licence will be issued.

A licence is required for each stage in the development of uranium mining, including, just noted here, construction, operation, decommissioning, and abandonment. Once a company obtains a licence it is required to comply with the conditions of the licence, including the implementation of any and all commitments. The company is required to provide a financial assurance for decommissioning so that if the company goes

bankrupt there will be sufficient money for the government to clean up the site. Other obligations include implementing a quality assurance program, monitoring, and reporting.

Once the licence has been issued the CNSC ensures that the licensee has complied with the licence by conducting on-site inspections by regularly reviewing the company's operating records and compliance reports.

Now let's look at some examples of some of the things that I've said here in more detail. First there's protection of the workers and the public. We keep an eye on the mining companies so the workers and people are protected. I'm not saying that mining companies do not do this work, but as I noted before, the CNSC's staff is here to ensure that the, and confirms that it stays that way under the licence. Having said that, it's important to the CNSC that we protect the lakes, the rivers, our land, so that we can continue to use this land for traditional activities and also for the birds and animals to use for healthy food and continued survival. Thus any new or existing mine site must have strong controls on them to protect the environment and to make sure their impacts are very small and contained.

Environmental protection by example is all about continuous oversight by all of us. This starts at the top with assessment of what could happen, putting controls or restrictions in place to control the impact, to monitor or verify, determine that it works, and then to continue to reassess and to continue to improve.

The information required in all applications is identified within the regulations. Primarily the General Nuclear Safety and Control Regulations and the Uranium Mines and Mills Regulations. Some of the basic information required is shown on the slide, such as the activities that are planned, the description of the facility, the radiation protection measures, financial insurance, and a number of further details throughout all the regulations.

Public hearings for review of licence applications are convened by the commission, such as this one that is shown in this slide. The commission hears the case put forward by a proponent and the recommendations of CNSC staff. As well as the views of other interested parties, like the public, interest groups, community organizations, as well as other government departments and agencies.

The commission periodically takes its hearings on the road, such as this one in La Ronge, Saskatchewan, to make it easier for communities most affected by proposed facilities to participate and intervene, either for us, either for or against the projects. There is one additional thing which is not indicated on the slide, but also in our office in Saskatoon we have a video conference set up that we obviously use for connection with commission meetings to make it easier for people.

Exploration diamond drilling. As indicated in the following slide, companies wanting to mine uranium have to get a licence. They have to do this for each development stage except exploration. This is a picture of a drill rig exploring for uranium. The uranium, CNSC does not regulate this activity, but provincial or territorial governments do. However, when a company has done enough drilling to determine that they have an economically viable ore deposit and want to further evaluate or develop it, then they will need a licence from the CNSC.

So to best describe when the CNSC also steps in as a regulator we have to identify what that stress point it. And that is, after a potential ore body is considered to be a mineral deposit that can be economically extracted. A significant quantity of information from exploration and assessment of potential mining or handling, milling, and waste management methods may be required to determine whether the mineral resource can be economically and safety extracted and processed. This assessment could require an understanding of many different factors, ground water, environmental impacts. All of these activities are associated with exploration and are under provincial or territorial jurisdiction throughout that complete process of determining the initial design.

Once the exploration activities are concluded and a potential ore body is identified additional activities may be required to further define the mining or handling and milling processes, and these activities may involve the development of shafts, deep lines, test mining and milling activities, and the installation and operation of more permanent site infrastructure, such as (inaudible) treatment, water storage facilities, and headframes. These types of activities are considered to be evaluation activities and are subject to the CNSC licensing process. So this is a primary start point when any of the elements identified here are intended to be carried out that the licensing process under CNSC would start.

So after a company finds an economical ore body and wants to develop it and applies for a CNSC licence. Once it has a licence and any other regulatory approval it needs to proceed you will begin to construct a mine and supporting infrastructure. Specific CNSC construction licences required for this phase of the operation. This is a picture of the Cigar Lake Project in Saskatchewan which is currently in the construction phase. After construction an operating licence is needed before the uranium can be mined or milled. This is a picture of the McArthur River operation, which removes ore using an underground mining method and trucks it over to another site for milling. This site is licenced to mine, but not mill uranium.

And when you move underground at this same site, the McArthur River site, radiation protection controls are used. This picture just shows one of them. In this case, a continuous reading alpha prism is being maintained by one of the radiation protection technicians. This measures radon progeny on the three-light system, which is just a green-yellow-red traffic light type of system. It's used to either confirm that the working levels are safe with a green light or to warn of increasing levels by the amber-red light condition. They've been very effective. Gamma radiation is controlled by using non-entry control measures, as shown on a previous slide remote operated scoops and to move the ore underground.

The Key Lake mill in Saskatchewan is currently licenced to operate a mill to dispose of waste materials on site. The site is licenced to mill but not mine uranium. So the Key Lake mill receives the ore from McArthur to mill it. This picture shows the ponds used at Key Lake to hold contaminated water and to monitor treated water and to ensure that it is acceptable before it is released into the environment.

This is a picture of one of AREVA's JEB open pit mine beside the mill at its McLean Lake operation in northern Saskatchewan. The second picture is of the Sue open pit. This operation is licenced to both mine and mill uranium. I should also note that both of these pits were mined out and the uranium ore stockpiled for milling. The pits were then

further modified or enhanced to store or manage the long-term site wastes. The JEB pit on the left was converted to a tailings Management facility and the Sue pit for waste rock disposal.

Once the ore is processed and milled it is packaged into drums for shipping off the mine site. These drums are checked over to confirm that labelling is correct and that there is no contamination on the outside of the drums before being transported out of the packaged area and into an uncontrolled area.

As this slide explains, the active uranium mine sites today, at least for now, are located in northern Saskatchewan. The siting construction operation and decommissioning of these mine and mill projects are project managed by the staff of our Saskatoon office. Following the mining and milling, the end product is trucked from northern Saskatchewan, as you see here, to Saskatoon before being transported to the next phase, which is the processing or refining site. These are located in places like eastern Canada – Ontario primarily – United States or France, for example. Transportation of any materials in Canada have to comply with a separate set of regulations called the packaging and transport of nuclear substances regulations.

We've just talked about active or producing uranium mines. We also have to note the importance of closing out the site and cleaning it, called decommissioning. This is a picture on the right of the Cluff Lake mine mill site prior to decommissioning. The site had been cleaned up under a decommissioning licence and all of the facilities you see here are now gone. As the picture on the left from 2006 shows. The one building seen on the left is the diesel power generators, as it is the last building removed after the work is shut down. The site is now on the post-decommissioning monitoring phase and this will continue for at least five to 10 years to confirm that all is satisfactory. All of the sites, including Cluff Lake, are visited about once per year by members of the northern Saskatchewan communities and the Saskatchewan Environment Quality Committees, which you'll hear also about in this workshop. In other words, community members can see for themselves the site status and talk to the workers there about what is going on.

More Cluff Lake, but this is one of the mining areas shown on these pictures. Before final clean up, the left picture shows before final clean up and then backfilling of the pit on the right side.

Considering the re-vegetation of these disturbed areas is only now one to two years old, the enhanced recovery to pre-mining conditions will still take a number of years before it's fully developed.

To see where we're at in the presentation, just show the start here again. We've got basically 10 more slides to go, so we're, like I said, it is a long presentation to start with.

Once a licence is issued by the commission, CNSC staff considers, administers the licence, and verifies that the licences comply with the regulatory requirements, the approved programs, and all licence conditions. This is achieved through a compliance program which includes three integrated components of promotion, verification, and enforcement.

The first, promotion, is where the CNSC staff informs, guides, and communicates to the licensee and the public regarding the expectations on complying with a licence and how

to meet our national and international obligations. Second is the verification stage, which involves periodic review of the licensee's programs, onsite inspections, audits to verify regulations and licence condition compliance. CNSC staff also perform the work with other provincial, territorial, and federal regulatory agencies, like Saskatchewan Environment, Saskatchewan Labour, Environment Canada, Department of Fisheries and Oceans, or the Department of Indian and Northern Affairs.

The last regulatory step is enforced which occurs when the licensee is not in compliance. This involves re-establishing compliance with regulatory requirements using a graduated approach starting with discussions, requests and warning, increased regulatory scrutiny, and in extreme cases can result in work stoppage orders, licence revocation and/or legal prosecution.

The CNSC licensing process has recently been published in a document named in this slide, which is Licensing Process for New Uranium Mines and Mills in Canada, of which I've left a number of copies on the back table if somebody wants to get that document. Also on this slide, nuclearsafety.gc.ca is our main website of the Nuclear Safety Commission and that document can be downloaded directly from that website as well.

So I want to touch back again on the environment and how we go about monitoring it or assessing that it is okay. So the purpose of a monitoring program, as it's shown on this slide, replies to the quality and quantity of effluence that is released. The releases have to also not exceed those predicted in the *Canadian Environmental Assessment Act*, licence application. The environmental effects predicted under the environmental assessment, such as the impacts identified. This is a very strong part of the program now. It used to be primarily allowing for permissive levels of different levels of contaminants. But basically with the implementation of a mines, metal mining effluent regulations it's become more of a direct link back to environmental assessments, so each component as predicted is basically what the standard becomes in the process.

As mentioned previously, CNSC considers it important to have a consistent regulatory approach for the uranium mining industry. We communicate with each other to have a strong consistent process that can also minimize unnecessary additional bureaucracy for mining companies to deal with.

So who are the main regulators? Well, CNSC is the principal regulator, the federal departments of Environment, Fisheries and Oceans, Indian and Northern Affairs, or Transport Canada may also be involved. With regard to local, provincial, or territorial jurisdiction it is usually the groups responsible for environment protection, resource management, or worker safety that are involved.

Working arrangements can be either formal or informal. For example, the CNSC has a formal working arrangement with Environment Canada in the province of Saskatchewan consisting of signed written agreements. And I'll talk a bit more about this in a minute. The informal working arrangements most often take the form of what we call a joint regulatory group or JRG. Depending on the circumstances, these usually consist of a group of regulators brought together to review a project or activity of mutual regulatory interest. The circumstances range from new activities requiring approval to emergency response situations urgently requiring regulatory scrutiny. What this joint regulatory or harmonized approach does is to provide a multi-jurisdictional perspective to regulatory

decision making. We avoid contradictory regulatory decisions and search regulatory efficiencies built on strong communications. An example of the harmonization process that we have with Saskatchewan, it's a formal working arrangement or administrative agreement that was signed with the province for the regulation of health, safety, and environment at Saskatchewan uranium mines and mills. The agreement was signed in March of 2003 and the objective of the agreement is to provide for collaboration between CNSC and Saskatchewan Environment and Labour in the regulation of uranium mines and mills in the province. Today we have developed a standard inspection process and we conduct joint inspections. We've developed a joint guidance document on annual reporting requirements and we've evaluated the licences and environmental protection, health and safety programs for weaknesses and follow up. If you're interested in the details of this agreement you can find out more in the Internet link shown on this slide. Similar approaches could be developed across Canada as the interest in siting and constructing new uranium mines and mills continues. Just a picture of a joint environmental inspection that was carried out in Key Lake in 2005.

Another important area that we will briefly talk about is another responsibility of how uranium is controlled to ensure it's used for peaceful purposes. As mentioned earlier, uranium is used in the production of electricity, Canadian reactors, and the thousands of nuclear power regulators located around the world. Uranium is also used to produce a vast array of other isotopes used in industry, medicine and research. These are peaceful uses of uranium that Canada endorses. What the Canadian Government does not permit is the use of Canadian uranium in any nuclear weapons.

So how does the Canadian Government prevent our uranium from getting into nuclear weapons? It does this by controlling the export of uranium to only those countries that have signed the nuclear non-proliferation treaty and bilateral agreements prohibiting the use of Canadian uranium in nuclear weapons and that have accepted safeguards provisions defined by the International Atomic Energy Agency. The export of Canadian uranium is regulated and monitored by the CNSC and the Department of Foreign Affairs and International Trade to ensure that uranium only goes to countries for peaceful uses. The International Atomic Energy Agency, or IAEA, is responsible for ensuring that countries do not use uranium for the development of nuclear weapons.

The IAEA was appointed by the United Nations in 1957 and has developed a number of safeguards for ensuring that nuclear materials are used for peaceful purposes in non-nuclear weapons countries, including material accountability. The IAEA tracks all inward and outwards transfers, flow of materials in any nuclear facility, includes sampling, analysis of nuclear material, on site inspections, review and verification of operating records. Physical security ensures provisions are in place to restrict access to nuclear materials at the site. Containment and surveillance ensures seals, automatic cameras, and other instruments are in place to detect unreported movement. And in Canada, CNSC enforces the IAEA safeguards requirements through licenced conditions and verifies compliance with these requirements through regular joint inspections with IAEA staff. So even after the regulatory agency oversees what CNSC does to enforce the accountability.

One concluding element we must talk about is safety culture. And is a consistent message that our president and CEO with the commission members leave at each

opportunity with the stakeholders. In reviewing the challenges that we collectively face over the years and months ahead, above all each licensee must stay focussed on safety culture. This is a key area of the focus world wide and Canada, including the CNSC. The facts are clear: Most accidents and events can be traced to human factors. There are associated areas of focus for the CNSC, including broader area of operational performance, organizational management, performance insurance, and specific approaches to training and qualification to ensure that the workforce is fully competent to carry out all activities. There is not and there will not be a safety culture regulation, but all major licences have been involved in discussions on this matter and will need to demonstrate their approaches on this front.

Concluding comments. The nuclear industry in Canada is diverse. Under federal jurisdiction and the CNSC is Canada's nuclear regulator. CNSC strives to be one of the best nuclear regulators in the world and is committed to continual improvement. Transparency and consultation are strongly valued at CNSC. A cooperative approach with other agencies is carried out. CNSC emphasis on nuclear industry whose foremost concern is safety. And safety is the responsibility of the licensees.

The last slide just shows some information sources. I brought some pamphlets, the copy of the presentation and some further information at the back table. And the website is noted, which I had noted before as nuclearsafety.gc.ca, which is accessible over the internet carrying, which contains all the regulations and a lot of guidance and information documents that are available. Thank you.

---Applause

FACILITATOR: Thanks very much, Fred and helper. Appreciate that and I'm sure we'll have some questions as we go later through the week on the regulation. Just before we break for lunch, a few announcements. We're scheduled to return at 1:30. We'll have presentations by INAC and the Government of Nunavut, followed by a number of presentations on health and safety in the uranium industry. There are more copies of presentations at the back. In particular, the presentations delivered on the uranium overview this morning are now at the back. I encourage any other presenters to provide copies. Also, encourage people to sign up on the Wednesday night public sheet and any issues to raise those on the sheets over there. For those of you that have some administrative issues with NPC, Sharon is available during breaks for invoicing and distribution of cheques. And over the lunch hour, if there's any questions on the agenda or schedule, I'm around here. Please come and see me. We'll see you back at 1:30. Thanks very much.

—LUNCH BREAK

Government Regulatory Processes and Considerations

MR. MACISAAC: – I'd like to thank the Nunavut Planning Commission for the opportunity to present today and to take part in this what I'm sure will be historic event here in Baker Lake. And maybe we can state just right up front that INAC doesn't have any specific policies that relate to uranium at this time. However, we expect exploration and development to be carried out using the principles of best practice, sustainable development, and consultation. And we will also be guided by the results of this process and general public concern.

Just a quick scan off the regulatory environment. Little uranium exploration activity has happened in Nunavut since the 1980's. Now this has changed significantly in 2004, as Karen and Brian have outlined earlier. The political, economic, and regulatory environment has changed significantly since then, and that includes the signing of the Nunavut Land Claims Agreement and the creation of the territory of Nunavut. And in terms of our role, we co-administer and co-regulate mineral exploration, including uranium, on Crown land in Nunavut.

We have confidence and participate in the regulatory process outlined in the Nunavut Land Claims Agreement and this includes, among others, land use planning, which is Article 11, impact assessment, Article 12, and water management, Article 13.

We do not work in isolation and have close working relationships with the Nunavut Planning Commission, the Nunavut Impact Review Board, the Nunavut Water board, the Government of Nunavut, NTI, other federal partners including Environment Canada, Canadian Environmental Assessment Agency, Fisheries and Oceans, Natural Resources Canada, Health Canada, Transport Canada, and in the case of uranium the Canadian Nuclear Safety Commission. We have relationships with communities, industry, of course, and other stakeholders including the people of Nunavut.

I'd like to talk about some of our specific activities. Our mandate, which comes from the *DIAND Act*, grants province-like authorities to the department. In other words, we act in a similar manner to provinces down south with respect to resource Management. And the Government of Canada has a policy to devolve these responsibilities to the territories, which has already happened in the Yukon and the process is starting in the Northwest Territories and here in Nunavut.

Our broad mandate includes affairs related to land, resources, the economy, Inuit and northern governance that have not been assigned to other departments, boards or agencies. For projects proposed on Crown lands, INAC may be the first point of contact to obtain permission to conduct a land use activity for exploration or information gathering.

Dealing with land administration. Crown land is administered by INAC on behalf of the federal government. Our legislative mandate includes surface and sub-surface lands. And the *Territorial Lands Act* and applicable regulations authorizes INAC to provide permits and leases on Crown land. And please note that no surface, and I underline the word surface, tenure instrument will be issued without the proper level of environmental assessment.

And speaking about environmental assessment, project review and approval processes are guided by the Nunavut Land Claims Agreement. INAC works within these processes to meets its environmental assessment and regulatory responsibilities, including both territorial and federal obligations.

We participate in the environmental process under Article 12 of the Nunavut Land Claims Agreement and the Nunavut regional office works with other federal departments to provide expert advice to NIRB during the environmental assessment. The NIRB board recommends to the Minister of INAC how the review of the project should proceed and after the EA process NIRB may recommend terms and conditions which are project specific.

In terms of water Management, the Nunavut Water Board has the responsibility to approve all water use and disposition of waste into water. And INAC participates fully in the Nunavut Water Board licensing processes. The *Nunavut Waters and Nunavut Surface Rights Tribunal Act* regulates the use of water or deposition off of waste into Nunavut waters. And the INAC Minister is required to approve Class A water licences.

In regard to inspection and enforcement regarding water licences, INAC enforces compliance of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and compliance of water licences. And in terms of land dispositions, INAC enforces terms and conditions of the land tenure instruments on Crown land. Another important part of our mandate deals with economic development and INAC supports Nunavutmiut in developing health, sustainable communities and achieving their economical and social aspirations by acting as a funding agent, enabler, and facilitator/coordinator.

And that's a quick overview of who we are as INAC. And we will be here all week. If there are any specific questions please approach us and we will see what we can do to help you out. And there is also copies o this presentation and the presentation given by Karen earlier this morning on the table back there. So thank you once again.

---Applause

FACILITATOR: Thanks very much, Bernie. I'd like to introduce Laura Kowmuk, the regional superintendent, Economic Development and Transportation with the Government of Nunavut out of Rankin Inlet.

MS. KOWMUK: Hi. I'm not going to sit because when people are sitting they start just staring at your paper and I don't want you to fall asleep. I'll be insulted. (Begin Translation) I'm going to be going back and forth between the English and Inuktitut as I'm an Inuk. I work for the Nunavut Government and I was directed by the government. I used to work NTI and also with Kivalliq partners and I recognize a lot of people that come here and have been speaking with them. I'm happy that I was selected to speak. A lot of the, I was really impressed with the fact that a lot of the written submissions were not translated in Inuktitut. When I learned the fact that this little, I was telling Percy, who was there, and Annie, I was really impressed if you'd seen you elders. That little which looks like a little hook. Have you seen it? And here is how impressed with it. If you could just use those three little, if you would have, if you only used five you would have power for a full year. Especially for the elders. Just looking at the fact as to how our elders who are wise and if you used five of those you would use five, only five of those and this, in my whole life I have never seen anything – (End Translation).

First of all, I just wanted to do my introductions to the GN reps that have been working with me on my presentation. I was asked to do a presentation, so I wanted to just acknowledge and thank the people behind the scenes who have been helping me do my presentation and get ready to do this presentation at the uranium workshop. I'll say your name and I'm going to embarrass you; I'm going to ask you to get up and wave. I'll say who you work for. We're all from the Government of Nunavut, but we're from different departments. And yes, we do work together when we can. First of all, Shawn Maley. If you can stand up. He's from CGS. And Richard Mackenzie from Education, if you can stand up. And Meaghan Bennett from EIA. David Boyle from Community Government Services. And Francois. I can't say your last name. He works with me at

EDT, Economic Development and Transportation. Mitch Campbell from Environment. Mitch. Yeah. Okay. He's in the corner there. I used to work with the same division until they separated us. Josh Gladstone. He's from EIA. How do you say this? Executive and Intergovernmental Affairs. And Ronnie Suluk (sp) works with Francois at Environment. And Peter Workman from Health and Social Services. Thank you very much for helping me with this speech and presentation. I appreciate it. I got a lot of feedback from them and they got more than they needed with feedback from me.

So we represent the Government of Nunavut. I'll go through the speech. If you guys are up to date with the news, our Minister, I'll just switch right now to Inuktitut. (Begin Translation) Well, Minister of Environment, I work under him. I believe he went through the radio, CBC Radio. They're having a meeting at this moment. He had mentioned on behalf of uranium. The translation in uranium in Inuktitut, it's translated as (Inuktitut word for uranium), but when I read the uranium ... Elders, please know that the translation of uranium, it runs out just like running a battery. The uranium, the translation of uranium has to be changed into a better wording in Inuktitut. Please keep that in mind.

We talk about this uranium. I was appointed by Government of Nunavut in regards to uranium. Of how ... try and speak slowly. (End Translation)

Forgive me if I speak to fast, translators. I'll try and slow down. In 1980 the people of Baker Lake opted not for uranium mine. There was a Kiggavik uranium project and they decided that they didn't want the mine to happen in the '80's. So the uranium mine has not been on the table til now. So it's been about over 27 years that they decided that they didn't want a uranium mine happening. But now, today, 27 years later, the interest has been sparked with the prices of uranium and electricity. And throughout the world the uranium demand has gone up and the price of it has soared. So the interest has come back for uranium development.

At the same time, technology relating to the peaceful use of uranium, environmental stewardship, and mining health and safety have all advanced significantly since the '80's. So there's been a lot of changes in 27 years of uranium development. So the Nunavut Planning Commission, the Nunavut Impact Review Board, and institutions of public government have gotten together and they've decided to hold the workshop to see your interest in the development of uranium mining. It's because of your interest and your concerns we are here today.

We as of GN have a role to play and I want to make it very clear that you know what our role as GN is on the development of uranium mine. First of all, we have to balance the economic, health, environmental issues that are associated with these mining projects. And we are aware the uranium mining plays a special responsibilities on government and industry to help achieve a balance. So we have to make it clear, we have to have a balanced approach to uranium mining. With that in mind, we had to go back to saying, okay, what is our principles behind this? What is our role in developing this? We have six basic principles. If you guys can remember at least half of them I'll be really impressed with you.

Like I mentioned early, our Minister Simailak outlined the principles in his speech that he did on Monday. So he said it at the Legislative Assembly. He outlined the speeches

and I'll just restate them if you were travelling and weren't available to listen to the six principles that are outlined in this. And I'm here to explain the principles and discuss how the government plans to develop a uranium policy. In consultation with stakeholders from all across Nunavut. So we're going to be one big happy family here with your input.

The GN believes in building a strong sustainable economy for Nunavut. This means fostering a robust exploration and mining industry as part of any plan. As you know, the uranium here in Baker Lake in this region and other communities would stand to benefit from a uranium mine. For instance, people in Nunavut will have better access to jobs, employment, and training, and business opportunities when these projects move forward. If you've been here for the last couple of days you could see the school bus going back and forth. That's local people going to the mine for development. If you speak to their wives and ask how they're doing now that their spouses are working, that will answer your question. But also, we move forward, we must maintain a balance and sustainable approach to our decisions, taking into account a health environment and the needs of our communities. And that is why the GN has developed these principles and I'm about to outline them for you right now, which will guide us, all of us, to build a uranium policy for the Nunavut territory.

The first principle is, the Government of Nunavut regards mining, including uranium mining, as an important potential source of revenue to meet the needs of Nunavut's ever-growing population. And as a potential source of employment and associated skills development for Nunavutmiut. When that happens you have the self-reliance. You can depend on your own and you can do many things for yourself. You're no longer dependent on the government, but you're dependent on yourself to be able to make your own choices when you have money. Just like when we have children, we give them money. And you say, you can spend it on whatever you want. And they have to pick and choose how they're going to spend their money. It's the same thing. Mining is an important element of our economic development strategy and mining has the potential to contribute significantly to the mining sector.

Second, the Government of Nunavut recognizes that uranium development places special responsibility on government. That is because of the nature of uranium and its byproducts. The history of its use for both peaceful and non-peaceful purposes and its potential risk to health, human health and the environment. Special responsibilities include, may include developing the technical expertise and enforcement capacity to monitor uranium mines. Ensuring that mining technologies are sound for Arctic environment and working closely with other agencies involved in uranium mine regulation.

Third principle is, the Government of Nunavut understands that uranium development must have the support of all Nunavutmiut, especially communities that are impacted and affected by this uranium development. GN will help to ensure that Nunavut, particularly the people and communities that are most directly affected, are provided with clear, factual, information on all aspects of the uranium development. I'm almost done. And Nunavut will have proper opportunities to participate fully in decisions on development. That is why we will make sure that Nunavutmiut are consulted as we develop our uranium Management plans.

Fourth, the Government of Nunavut will support uranium development in Nunavut provided certain conditions are satisfied. One of these conditions is the health and safety standards that are at least at Canada's national standards. And they must be assured for workers involved in uranium development in Nunavut.

Another condition is that the environmental standards must be assured, especially for land, water, and wildlife. The GN recognizes the importance of local wildlife and the environment to Nunavutmiut and especially the people in this community, Baker Lake. If a mining project was proposed every effort would be made to ensure that the least amount of disruption to the wildlife and environment and traditional use of the land that there wouldn't be disruption. Least amount of disruption.

Fifth, and last condition, is that Nunavut must be the major beneficiaries of uranium development activities. Fifth on our list of principles is that the GN, Government of Nunavut, believes that nuclear power generation will be an important part of global strategies for ensuring energy supplies while reducing reliance on greenhouse gas emitting fossil fuels.

The sixth principle and last principle that I'm going to talk about is the Government of Nunavut believes that Canadian law and international agreements provide a reasonable level of assurance that uranium mined in Nunavut will be used for peaceful purposes.

These principles will serve as a framework for the development of a uranium mining management plan for the Government of Nunavut. The framework will be filled out with actions the government will take to implement the six principles responsively. Over the next year, as we develop the uranium management plan, Nunavutmiut will be consulted. Yes, we will consult you to make sure that your values and expectations are heard. People will have the chance to share their thoughts about our six principles that I spoke about and the actions we plan to take to ensure there's responsible development. This is consistent with the values that include (untranslated word) and (untranslated word), as well as (untranslated word), our three principles. That will be your homework. I won't explain what they are. That will be your homework tonight. You'll figure out what those three principles are.

In conclusion, the government is working to make sure that Nunavutmiut are fully prepared to participate in the new era of development of mining in Nunavut. And we will work to ensure that the mining, that this mining that is happening, will meet the highest standards. As I stated many times in this presentation, for health, safety and environment we'll have our support. Thank you. If you have any questions, I don't know if there'll be time, there'll be a public one that you guys can ask me and my group. Thank you.

---Applause

FACILITATOR: Thanks very much, Laura. I'd like to now introduce Graham Simpson of the Inter-Church Uranium Committee Educational Cooperative to give us some insights into his group's experience with uranium regulation. And copies of his presentation are available on the back table.

Experiences With Regulation of Uranium Mining

MR. SIMPSON: Good afternoon. Can you hear me at the back? See a hand

somewhere? Thank you. Good afternoon. I wish to thank the commission for inviting me to bring some experiences of the Inter-Church Uranium Committee Educational Cooperative. It's a big acronym as well as a big mouthful. Inter-Church Uranium Committee Educational Cooperative of Saskatoon. I'm a retired professor of plant sciences at the University of Saskatchewan, where I taught and did the search for 40 years in the field of plant physiology. I'm particularly concerned about the deterioration in the environment and the biosphere by radioactive pollution that can have long-term genetic effects in all living things. I've been a member of the Inter-Church Uranium Committee since it began.

I'll give you a brief history of the Inter-Church Uranium Committee that has been in existence now for 27 years. Following the Cluff Lake inquiry in Saskatchewan in 1978, the provincial government decided to permit new uranium mines in the Wallaston Lake Basin in the far north of the province. The nuclear industry decided to quietly buy out land owned by Mennonite dairy farmers close to Saskatoon with the object of building a uranium refinery to avoid sending yellow cake all the way to Port Hope in Ontario. The farmers were angry at the deceit and called on local churches of different denominations to oppose the refinery when hearings were held by the Saskatchewan government. The United Church, Catholic, Anglican, Lutheran, and Mennonite churches banded together into an organization initially called the Inter-Church Uranium Committee that made a convincing case to the hearings against having a refinery. The committee then focussed on the expanding uranium mines and for ethical reasons opposed them on the grounds that uranium was going from Saskatchewan to atom bombs, also to nuclear reactors that created huge amounts of radioactive waste, posing a threat to the environment and humans for ages to come. The committee made as a primary objective the halting of uranium mining in Saskatchewan.

British Columbia had just declared a moratorium on uranium mining for at least seven years. In 1983, a joint statement was issued to the Government of Saskatchewan by all the church leaders who were in total agreement that a moratorium should be put in place against uranium mining. It's unusual to get different denominations to agree on anything. In 1991 and again in 1993 the Inter-Church Uranium Committee and the church leaders reiterated their request to the government without affect. The committee then changed its name to be an educational cooperative with the object of bring an alternative view to the public about the claims and the propaganda of the nuclear and uranium mining industry.

Atomic Energy Limit of Canada, AECL, tried to bring a proposed slow poke nuclear reactor to the University of Saskatchewan in 1989-90 after being turned down by the people of Sherbrooke. The intent of AECL was to get a foot in the door in Saskatchewan to show their proposed small reactor could be used in the North or sold overseas. The Inter-Church Uranium Committee, together with several other organizations and the university faculty, opposed the concept and any need for a reactor, so AECL withdrew the project. At the same time, Atomic Energy of Canada Limited set up a million dollar building in Saskatoon with 140 personnel to draw up plans for a CANDU-3 medium sized reactor and they bombarded the public, schools, and organizations with propaganda costing millions of dollars. With the change in government and much public opposition from the Inter-Church Uranium Committee and the public, AECL withdrew from Saskatchewan after spending about $40 million of

taxpayers money to no avail.

In 1989 Saskatoon was declared a nuclear weapons free zone as a symbol of opposition to nuclear war adopted by many cities in North America and the Commonwealth. And the Inter-Church Uranium Committee spearheaded this action. During the 1990's the Inter-Church Uranium Committee and many individuals made representations to the various regulatory hearings around uranium mines, high-level nuclear waste disposal – that was the Seaborn Commission – and the joint federal/provincial panel hearings on new uranium mines. Particularly the proposed McArthur River Mine with its very high grades of ore and associated high levels of radioactive waste using untried methods.

In 2002 the Inter-Church Uranium Committee took the Canadian Nuclear Safety Commission – previously called the Atomic Energy Control Board – to a federal court for failing to initiate an environmental assessment for changes proposed by the French mining company Cogema (sp), now called AREVA, at its McLean Lake mine and mill. Judge Campbell upheld the Inter-Church Uranium Committee, but the Canadian Nuclear Safety Commission still didn't stop the ongoing activities of the mine and mill despite the court decision. Cogema and the Government of Saskatchewan and one aboriginal band, who feared they would lose trucking work if the mine was shut down until an assessment was concluded, joined together in an appeal to the federal appeal court against the judgement of Mr. Justice Campbell. It took two years for the verdict, which was on June the 8th, 2004, which reversed Judge Campbell's decision. Okay.

This appeal court decision was further appealed by ICUC to the Supreme Court, which decided for reasons not given to reject the appeal. It is one of the only court cases in Canada related to the uranium mining and nuclear industry where a voluntary organization has taken action on behalf of the public. It demonstrated how difficult it is to get past the layers of federal, provincial, Canadian Nuclear Safety Commission, and industry influence to combat matters of public concern. It's literally a David and Goliath situation in terms of the opposition that comes to those who dare to question the vested interests of power companies and government bureaucracy. There's a lesson there to be learned by the people of Nunavut: Expect lots of problems whether you say no or yes to uranium mining as there are many forces in front of you.

In recent years, the Inter-Church Uranium Committee has been making a strong case to the Canadian Nuclear Safety Commission, the federal Department of Health, and the federal Department of Environment, and provincial counterparts to recognize the long-term effects of radon gas and its product, alpha radiation, as the primary cause of lung cancer in uranium miners. New research shows that alpha radiation has been downplayed in the past for its effect on humans and has been underestimated for its genetic effects on all other biota. The Canadian Nuclear Safety Commission has been reluctant to accept that new research is needed to understand the effects of radioactive wastes on all biota in the environment of uranium mines.

A little bit about the history of uranium mining and the nuclear industry. Radium was mined along with uranium near Lake Athabasca in the 1920's and '30's, and when the Second World War commenced and uranium was needed to make bombs mining was renewed at Gunner and Beaver Lodge and it came under the control of the federal government by turning the private company Eldorado into a Crown corporation,

Eldorado Nuclear. Uranium was needed for atomic weapons and the CANDU reactor was designed firstly to make plutonium from weakly enriched uranium.

Atomic Energy of Canada Limited, AECL, became the federal Crown corporation that designed and research nuclear reactors and gave guidance on matters to do with uranium mining and radioactive waste disposal. It has received more than $74.9 billion since its creation, all of it by Cabinet decision without debate in Parliament. Eventually the federal government created the Atomic Energy Control Board, now called the Canadian Nuclear Safety Commission, to regulate the various aspects of the nuclear and uranium industries. Health and environmental issues remain the prime responsibility of the federal and provincial departments.

This has lead to conflicts between the federal and provincial departments about jurisdictions and the application of regulations. This confusion has been used by industry and mining companies to get away with all kinds of issues. The Northwest Territories was under the jurisdiction of federal laws until the division that created Nunavut. As an example of the games that are played, we can look at the Athabasca region, mined first in the 1930's. For example, the Gunner and Beaver Lodge and many smaller mines that dumped wastes straight into the bay of Lake Athabasca. When these mines ended they were abandoned without decommissioning. This left the public carrying responsibility for any long-term problems except where companies like Cameco, that were formed years later, had taken over previous mining rights.

In the early days little was understood about the short- and the long-term hazards of uranium mining and wastes. With the gradual acquisition of health and environmental protection legislation at the federal and provincial levels it was decided about 10 years ago that these old mines and wastes needed to be cleaned up. The province of Saskatchewan wanted the federal government to pay and vice-versa. So they argued for a few years and 60 years after the mines closed they have agreed, two years ago, to each put up $12 million towards decommissioning. But to date nothing has been done except to study what to do. In fact, Mr. Anderson, the federal Minister of the late federal Liberal government, is on record as saying they didn't really want to get involved as they know it's going to cost at least $1 billion to clean up uranium mine wastes.

So in the meantime, radioactive waste is dispersing itself in the North while the bureaucrats play games. By 2002 Canada had accumulated 200 million tonnes of uranium mine waste. Mostly in Ontario because of the low-grade ore there compared to the new high-grade ore in the mines of Saskatchewan. The Saskatchewan mines have about 22 million tonnes from 38 years of mining. These mines contain ores with much higher proportions of radioactivity than other places in the world.

The study around the Key Lake mine area in 1997 concluded that uranium, Radium 226, Lead 210, and Polonium 210, all dangerous to the biosphere, were present in plants and soils and animals in amounts well above permissible limits for humans. The highest amounts were for Polonium 210, a break down product of radon gas that enters the atmosphere from uranium mines and mills and can spread around the globe. It's of interest that polonium was recently used by the Russians to kill Litvinenko in England. It's more dangerous to humans than plutonium in extremely low doses. Radon gas has been the principle cause of lung cancer in uranium miners. Over 90 percent of the radioactivity in uranium mine wastes comes from Radium 226, which has a half life of

around 1,600 years. That means it takes that long to get rid of one half and another 1,600 to get rid of the next half.

Some end result health issues related to uranium mining. The Canadian Nuclear Safety Commission has concluded that there is no further need to do epidemiological studies of uranium mine workers on the grounds that the regulations are now protective enough to prevent over-exposure to radioactive materials. However, the provincial and federal government health departments cannot even agree on what are the allowable limits of exposure. The needs have been changing quickly in the last few years as international studies have shown the need to lower the limits of exposure. For example, the International Commission for Radiological Protection said in 1991 that for members of the public like you and me the maximum exposure is two milliSieverts per year. The old Atomic Energy Control Board, now the Canadian Nuclear Safety Commission, in 1990 said the public can have five milliSieverts per year, but miners can have 30 milliSieverts over three months or 50 every one year. This means miners can have 10 times more exposure than you or me. The Saskatchewan Department of Health in 1993 said, 20 milliSieverts averaged over five years or 50 milliSieverts in one year. Finally, in 2000 the Canadian Nuclear Safety Commission announced new regulations of 20 milliSieverts for miners and one milliSievert per annum for the public. Fourteen years after the knowledge that at least 6,000 workers in Canada exceeded permissible dosages.

The governing principle for the Canadian Nuclear Safety Commission is the so-called ALARA Principle, which means ‘As Low as Reasonably Achievable,’ indicating that there is an element of health risk for all uranium miners at some point in the workplace. An epidemiological study of 15,000 miners who had worked at the Elliot Lake and Bancroft mines in Ontario showed they had 81 percent more deaths from lung cancer than the general population. Of 30 Dene who worked at Port Radium, 14 died from lung cancer. And American studies show that 30 percent of uranium miners are likely to die from lung cancer. So regardless of the new regulations, accidents happen, so the risk to uranium miners is high.

International health scientists are now in agreement that even the lowest doses can cause cancer. Recent accidents, such as the flooding of the McArthur River and Cigar Lake mines, expose some miners to exceptionally high levels of radon gas, but the consequences may take years before they are seen as cancers.

There’s laxity in the regulations governing radiation protection for uranium exploration where geologists and drill workers handle radioactive rock samples. A well-known uranium geologist, Strennard (sp), drew attention to this in the Key Lake mine development in 1998 and he died soon after of cancer.

The regulations governing uranium mining seem to be merely guidelines and when accidents happen the companies are forgiven and told to get in line. None of the health and environmental agencies have the personnel to monitor the day to day activities on mines and mills, so they rely on the companies to provide the data for their own monitoring. This is a case of putting the fox in charge of the rabbits as data can be fudged or not disclosed. In the case of Cluff Lake Mine, aboriginal workers were subjected to lie detector tests after a 100 cubic metre spill of liquid suggesting that cover ups were suspected and blamed on the workers. The Canadian Nuclear Safety Commission hearing about amending the operating licence at Key Lake in January of

this year disclosed that the walls of waste pits were slumping, mill effluents were escaping downstream such that the water quality 10 kilometres down river was causing selenium toxicity in fish and genetic abnormalities. Fifteen workers exceeded permissible doses of radiation and there were many miner accidents. The performance ratings given by the Canadian Nuclear Safety Commission in the areas of waste management, health, environmental protection, etcetera, were all either B or C level, meaning there were poor performance, yet the Canadian Nuclear Safety Commission renewed their licence with simply a warning to Cameco to get its act together. I suspect the history of every uranium mine is similar. Unless there is a major accident, the public is unaware of what is really happening to miners and the environment.

Public hearings for scoping sessions and environmental assessments are, from my personal experience, mockeries of proper process and evaluation because the mining companies and government bureaucrats descend from the cities and expect local inhabitants to be able to understand and make decisions about the lengthy briefs and engineering propositions couched in highly technical language. There are never enough publicly supported or interested groups with the scientific and technical knowledge to make the independent evaluations that are essential for protecting the interests of the general public.

I'm still going to fast? Okay.

The Canadian Nuclear Safety Commission usually plays the key role in hearings and most of the appointees tend to be experts previously associated with the nuclear industry, and they rely on a small group of technical advisors. There's a bias in the Canadian Nuclear Safety Commission towards defending the interest of the mining companies rather than protecting the public and it sponsors very little research.

All the predictions about how mines will operate under the governing regulations have been confounded many times because mining requires experimenting with new techniques and accidents too frequently happen. Selenium, arsenic, radium, and other toxic chemicals have been leaked time and time again into the northern watershed of Saskatchewan, most of which flows out eventually into Hudson Bay via the Churchill River system. Every one of the waste storage pits has encountered problems, mainly due to escaping liquids containing toxic materials. In the long term, predictions about containment will fail due to the huge volumes of underground and above ground water movement in Saskatchewan's interconnected system of thousands of lakes. Almost every mine is named for being sited on a lake or river. The financial costs associated with new techniques can be disastrous as Cameco is currently learning with the flooding accident at Cigar Lake, but the environmental damage can be even worse in the long run. But mining is all about taking what is there and then leaving, not about guarding the future of the environment.

One of the characteristics of the whole nuclear chain – and I point out it is not a cycle, it's a chain – uranium mining, refineries, nuclear reactors, and atomic bombs, is totally opposite to the natural cycles of nature is the fact that Everything ends up as waste. High level nuclear waste from reactors, waste from mines and refineries, and waste when bombs or DU weapons are used are all accumulating in huge volumes. The economic costs of the nuclear chain since the first bombs and reactors were built have largely been borne by governments for national interests, initially for military reasons.

The federal government has never allowed a full parliamentary debate on nuclear energy. In fact, it has spent money liberally on the nuclear industry and even secretly consorted with uranium mining companies to engage in an international cartel dominated by US interests to control the price of uranium. I had to resort to the *Freedom of Information Act* to get Cabinet minutes to show that it actively supported the fixing of prices between September the 1st, 1970, to April 1st, 1978, by six uranium mining companies: Eldorado Nuclear, Uranium Canada, Denison Mines, Gulf Minerals, Rio Algom, and Uranerz. At the time the government denied it was involved.

The influence on and constant lobbying of governments by all sectors of the nuclear industry subverts other national interests and has diverted huge amounts of capital away from other sectors of industry in the search. In Saskatchewan the government has spent at least $1 billion in subsidies to the uranium industry and recaptured in royalties about 10 percent. The mining companies claim they bring wealth and jobs to the province, but last year the combined contribution of all the uranium mining companies was only about 6.5 percent of the gross domestic product of Saskatchewan. The profits go out of the province to corporate share holders.

The debt of Ontario for its nuclear reactors, most of them with troubles, is in the order of $40 billion in 2005. And Atomic Energy of Canada Limited subsidies from the federal government had been $74.9 billion, which constitutes 12 percent of Canada's natural debt.

Right now the price of uranium has skyrocketed, mainly through speculation. With Canada producing about 30 percent of the world's supply, the failure of the Cigar Lake Mine to start producing after a disastrous flood, combined with a shortage of currently available well supplies, has set off a frenzy of exploration. The nuclear industry is claiming a renaissance of interest in building new reactors, but a report released by Greenpeace a month ago in Europe shows clearly that with the exception – I'm still going too fast? Oh, gosh. Okay. They've got it in front of them. Professors talk too fast. This report by Greenpeace released just a short while ago shows that with the exception of China and India nuclear is in decline everywhere else and has been for 20 years. As the price of uranium rises the cost of nuclear power rises, thus making reactors even less competitive than they already are. So my prediction is that the bubble will burst soon, and the prospecting and excitement will have been in vain.

Nuclear reactors in an age of climate warming caused by burning fossil fuel cannot substitute for fossil fuel and create clean air. Reactors liberate radiation and produce the most dangerous toxic waste known to mankind. No country has found a way to safety dispose their wastes or their reactors when they are closed down.

Canada has spent over $700 billion trying to find ways. Proposals to date by the Nuclear Waste Management Organization are horrendously expensive, anywhere between $20 to $40 billion. And uncertain. And unacceptable to the public, according to the seven-year-long Seaborn Commission.

Aboriginal lands far away from the big cities are the favourite sites for nuclear waste disposal. The cities are not friends of Canadians who happen to live in the more distant places of this huge country.

I have tried to paint you a picture of some the experiences of the Inter-Church Uranium

Committee and my personal perspective as an observer of the uranium chain. At the age of 76 I've learned to speak my mind with the hope that future generations are not going to suffer from the mistakes of the present consumer oriented society that has become isolated from the realities of the ecosystem that supports our survival as a human species. We are doing enormous damage to forests, fisheries, and landscapes because of overpopulation and the wasteful consumption of natural resources in the western world. It's all just to create a style of life that cannot be sustained for long and certainly not enjoyed by a majority of human kind.

The people of Nunavut how have lived here for thousands of years learned how to strike a balance between nature and their live style. The people in cities have lost that knowledge in a technological society and have little regard for those who live in distant places.

I end by saying this to you: all the people of Nunavut have to is say no to uranium mining and you can avoid all the problems that are certain to arise and make your life even more difficult than you think it is already. You said no once before. The promises and coercion from the mining industry and the encouragement from government bureaucrats that will accompany them are not really about benefiting you, but rather them. Think very carefully about strangers who bring gifts. Thank you.

---Applause

FACILITATOR: Thanks very much, Graham. I think copies of your presentation are on the back table? Yeah. Okay. Next we've got Dr. Gordon Edwards of the Canadian Council (sic) of Nuclear Responsibility and he's going to talk about health and safety issues. We'll have his talk and then a break, and then we've got a period for some questions.

HEALTH AND SAFETY ISSUES AND MITIGATION MEASURES

Health and Safety Issues

DR. EDWARDS: Thank you very much. I'll try to speak at a decent pace. I'm very grateful to have this opportunity once again to come to Baker Lake. I was here in 1989 when the last deliberation took place about Urangesellschaft and the Baker Lake, the Kiggavik proposal.

My organization, the Canadian Coalition for Nuclear Responsibility, is dedicated to trying to make information available to people so that they can make better decisions. Decisions based on an understanding of what the issues are. Without such an understanding it is very difficult to really make a sound decision. It's surrounded, the whole issue becomes surrounded with certain mystery. So let me try and demystify some of this.

I begin with nuclear fission. We've talked about energy from the atom. What does this really mean? Here we see a model of the uranium atom. Uranium is the heaviest naturally occurring element in Earth. It was discovered about 200 years ago and it did not have any practical use until 1938 when it was discovered that it is the only substance naturally occurring from which you can derive enormous amounts of energy by splitting the atoms.

This is a monument built in the Soviet Union. It's a monument to the splitting of the atom. It also honours a man named Kurchatov, who is the father of the Soviet atomic bomb. And it shows an atom at the moment of being split. You see the two hemispheres. Those two hemispheres are the broken pieces of the uranium atom and the semi-circles on both sides represent the energy that is released at that moment. I would like you to notice that when the atom is split and energy is released you get these broken pieces created. Those broken pieces are unstable atoms of different kinds which become very dangerous. They are radioactive materials.

Now, the first use of the fission energy was to create very powerful bombs, the atomic bombs that we've heard about. The one in the foreground, these are two models of the first two atomic bombs, a project in which Canada was involved in partnership with the Americans and the British. The bomb in the foreground is made from enriched uranium, highly enriched uranium. That is the bomb that was dropped on the city of Hiroshima. And the one in the background was made with a substance called plutonium. Now, plutonium does not exist in nature. It is a manmade material, but it is made from uranium. So if you like, you can think of plutonium as a modified or transfigured type of uranium. It is the nuclear explosive of choice in most of the nuclear weapons, most of the nuclear warheads in the world.

Now, when these bombs are detonated, this man is a bomb designer. The photographs are taken by my colleague Robert Del Tredici who works with me at Vanier College and who also works with me in the Canadian Coalition for Nuclear Responsibility. This man is a bomb designer and he suggested, when Bob wanted to take his photograph, that he stand beside these pretty pictures, he called them, of the good old days when they were allowed to test these bombs in the atmosphere down in the American desert.

When the atoms are split and the energy is released all the broken pieces go up into the air. And this becomes radioactive fallout. Highly dangerous materials. There are hundreds of these materials because when the atoms split they split in hundreds of different ways. Now, these hundreds of materials which are created in this way are generally do not exist in nature. They exist only as a result of the splitting of the atom. Here's a gentleman who was exposed to the fallout from one of these bomb tests. He was in the navy and he, like thousands of others, was ordered to witness the testing of the bombs in the South Pacific. Years later he developed serious illnesses, cancers. Both his legs are amputated at this point and he died a few weeks after the photograph was taken. His name is John Smithamin (sp), and he was mopping down the deck of a ship after the bomb test and he noticed down at the other end of the ship there were two men dressed in moon suits who were very well protected and who were measuring something. And he thought that's awfully strange that they are protected like that and I am just wearing shorts and a T-shirt. Years later he suffered the consequences.

Because what happens with these radioactive materials, they are materials and they go, like every other material they go to different parts of the body. We've heard of some of these materials. Iodine 131, Krypton 85, Cesium 137. These are all materials which are the broken pieces of the uranium atoms produced by the splitting of the atom which causes the energy to be released in the first place. And each one of them goes to a different part of the body because they behave just like food does. When we eat food the body processes it and puts it in different parts of the body. It does the same thing

with radioactive materials. So materials which are radioactive, but are like calcium, will go to the bones and to the teeth and to the mother's milk because that's where calcium goes. That's an example of Strontium 90, it behaves like calcium. If you take a look at a material which behaves more like potassium, like Cesium 137, Cesium 137 goes to the muscle tissue. And by the way, they found that there was quite a bit of Cesium 137 in the meat of caribou as a result of fallout from the bomb testing because the caribou eat lichen, lots of lichen, as you know, and lichen happens to be very efficient at collecting the fallout from the cesium and that ends up in the bodies of the caribou.

Basically what radiation does, what these radioactive materials do is they damage individual cells and these individual cells can be damaged in such a way that they grow incorrectly. They more or less forget that they're supposed to be part of your body and they grow incorrectly. This happened to an unborn child. This is an example of an unborn child who was deformed as a result of a bomb fallout in Kazakstan in the old Soviet Union.

Now, what's known about radiation at low doses is that it can cause cancer. Exposure to radioactive materials can cause cancer and other types of illnesses. Now, with regard to cancer, there does not seem to be any scientific evidence of a safe dose and the US National Academy of Sciences just finished publishing a report which emphasizes that scientific evidence to the contrary is not reliable, that all the evidence points in the direction that exposure to radioactive materials of a large population will cause an increase in cancers of various kinds.

Alice Stewart is a medical doctor from Britain and she studied women who had received X-rays to their abdomen when they were pregnant. And she found that the children who were born later had a 50 percent increase in childhood cancer and leukemia as a result of even a single diagnostic X-ray. For this reason they no longer X-ray the abdomens of pregnant women. But her results were found to be upsetting by the nuclear industry because they had been assuring people that these low levels were safe.

Now in a nuclear reactor, as you've seen, uranium is now used and sold specifically for peaceful uses, although we did sell a lot of uranium for bombs in the old days. Peaceful uses means putting the uranium into the reactor where the atoms are split to produce heat which then produces electricity. As you've seen. But it's important to realize that you still create all of these fission products and when the fuel comes out of the reactor, this fuel pellet which goes into the reactor is only mildly radioactive, but when it comes out it's extremely radioactive. It's millions of times more radioactive after it has been used than before it goes in. In fact, a fuel pellet this size would be extremely dangerous to be close to once it comes out of the reactor because it contains those hundreds of fission products inside giving off very penetrating radiation.

A single fuel bundle from a CANDU reactor, which is about the size of a fireplace log, when it goes in you can handle it. You can pass it around. It's made of uranium, it gives off some radiation, but not an intensely penetrating type of radiation. Once it comes out of the reactor, however, if you just stood one metre away from it for 20 seconds you would receive a lethal dose of radiation. You would be dead within a week or so. So it's extremely radioactive once it comes out of the reactor. In fact, they have to put the irradiated fuel into a swimming pool. Here's a swimming pool under construction. They call it a swimming pool not because anybody swims in it, but because that's where they

have to store the fuel, the irradiated fuel for at least seven years after it comes out of the reactor otherwise it would spontaneously overheat. It is so radioactive that it generates enough heat that if that water is not circulated it would slowly heat up and actually boil away and then the fuel would damage itself and release radioactive materials into the air. So they have slowly circulating water which cools the fuel for the first seven years.

After seven years they can put it into dry storage containers, which are air cooled and then eventually they hope to put it underground into geological repositories which are estimated to cost maybe $25 billion. Those are the estimates from the Nuclear Waste Management Organization to do this kind of disposal operation.

But even once it's underground it turns out that it continues to generate heat. And you see here pictures from Atomic Energy of Canada Limited the temperatures are indicated by the colours and the red on the top picture shows the heat from the buried irradiated fuel. And the next picture shows the heat how it's spread through the rocks after 4,000 years of being buried. And the next picture at the bottom shows 8,000 years after it has been buried. According to Atomic Energy of Canada Limited the temperatures of the rocks do not approach back to the original temperatures until after about 50,000. So it's a rather complicated business here. We're not talking about ordinary materials.

There's also one other thing which is important to know about. I mentioned plutonium. This is the amount of plutonium that's needed for the Nagasaki bomb, the bomb that destroyed the city of Nagasaki. It's only about the size of a grapefruit. And it is produced by every nuclear reactor. So there is plutonium being produced inside those fuel bundles while electricity is being generated. That plutonium is considered to be a possible future fuel. In fact, when people talk about the nuclear renaissance they're really talking about building so many more reactors that they will need to stop using uranium as a fuel and start using plutonium as a fuel. So one of the plans of the nuclear industry is to actually get that plutonium out of the irradiated fuel before it is buried so that they can use it as a fuel. The problem with that is that you're going to create a traffic in plutonium which could well lead to it falling into the hands of terrorists, criminals, and therefore spreading around the world the potential for more atomic bombs being made from this material. Which, by the way, has a 24,000 year half life. So it's going to be around for a long, long time once it's created.

Now, so although uranium does have a very advantageous properties in terms of its energy, one has to balance the idea that you could use just one pellet or five pellets to generate enough energy for a year against the fact that you might then have to guard this dangerous material for the next million years afterwards. Now, I'm saying a million years because that's not an exaggeration. We're talking about, the deal is this: you can have the energy, but you then have a responsibility to guard this stuff for, in a report from the Royal Commission on Electric Power Planning in Ontario, they have a graph which shows 10 million years. So this is the deal. Energy for a year, guard it for 10 million years afterwards.

So all uranium, all extracted uranium ends up in either one of these four categories: either in nuclear weapons – it still does end up in nuclear weapons – or as radioactive waste or as plutonium or as depleted uranium. And all of these are controversial. All of these, and many people feel, are inimical or unhealthy to the planet as a whole. Depleted uranium is used to make depleted uranium weapons, which you may have

heard about and which leave a radioactive legacy on the battlefields in the Middle East and elsewhere.

Now, uranium ore, what is it about uranium in the ground? After all, it is natural. Why, is it dangerous and if so why is it dangerous? Well, it turns out that uranium ore contains always more than just uranium. One of the things, this is a picture of Henri Becquerel. Becquerel was the man who, 100 years ago, discovered the phenomenon of radioactivity. He discovered that a piece of uranium ore put on even thick brown paper, put on, it could penetrate, could give an invisible kind of light that would penetrate through thick brown paper and cast a photographic image on a photographic film. And that was the phenomenon that he called radioactivity.

Now, this woman, who was a young Polish woman who came to Paris, her name is Marie Curie after she married – her original name was Sklodowska. She found something very interesting. She discovered that if you took the uranium ore that gave off these rays and if you separated the uranium out surprising thing. The uranium was radioactive, but what was left was much more radioactive. So she became very curious. She said, what is it that is giving off all the energy once you've taken the uranium away? And she discovered that there were, she discovered two new elements that were much more radioactive than uranium, but which are byproducts of uranium which occur naturally. And what the first one of these is, is radium.

Radium was a sensation in the 1920's and the early 20th Century. They used radium for all kinds of purposes. Some of them very serious and some of them very frivolous. Some of them very foolish and dangerous. One of the things they did – oh, by the way, radium in the 1920's, it's hard to believe, but radium at that time was selling for $100,000 a gram. And by the 1930's the price had dropped to around $70,000 a gram. But it was still the most valuable substance on Earth. And at that time in Canada on the shores of Great Bear Lake a radium deposit was discovered and that's where they started mining radium and the Dene-Sahtu people of the Great Bear Lake region were hired to load sacks of radioactive ore onto barges which they then sailed across the Great Bear Lake. It took about eight hours to get across the lake. And the Dene would often sleep on these sacks. Nobody ever told them that they were dangerous or that they should even shower. The sacks sometimes ripped open and they would be covered with yellow powder. Nobody told them anything about dangers involved or dangers to their health.

Here is a Dene man standing, looking over some of those burlap sacks which are still there, rotting in the sun, that they carried on their backs years ago. The village of Deline, where the Dene are now settled, has come to be referred to by some people as the village of widows because so many of the men died as a result of cancers that were probably caused by their exposure to this material.

Now, we often tend to think that they didn't know the dangers in those days, but here are two men, Dene men, holding up an enlargement of a government document of 1931 from the federal Government of Canada. And the document says, among other things, it says, I'll start reading in the second sentence, "Recent investigations in the field of radium poisoning have lead to the conclusion that precautions are necessary, even in the handling of substances of low radioactivity. The ingestion of small amounts of radioactive dust or emanation over a long period of time will cause a buildup of

radioactive material in the body, which eventually may have serious consequences. Lung cancer, bone necrosis, and rapid anaemia are possible diseases." Now, this information was known and the reason why this document was printed in 1931 was to protect the scientists in Ottawa who had to handle small quantities of this material in order to test it. But this information was never given to the miners or to the Dene people who handled the material. So sometimes the information that's needed just doesn't get out to the people who need to know that information. And that has been a persistent, recurring problem with regard to radioactivity and its health effects.

Now, the reason they knew of these dangers was because in the '20's there were thousands of young girls. These girls are just teenagers. And they were hired to paint using radium paint to paint the dials of watches so that they would glow in the dark, because this material gives off energy spontaneously and it glows in the dark. And it turns out that many of these women developed very serious fatal illnesses. Some of the women died of anaemia that was so bad that it simply killed them. Others developed bone cancer after relatively, after about five years of exposure. When they did autopsies on these women they found that the amount of radium in their bodies was so small that it was only a few micrograms. A microgram is one-one-millionth of a gram. That's a very small amount. But that material had distributed itself throughout their bones all through their body. So much so that a single bone if put on a photographic plate overnight would take its own photograph. They could get a photograph impression of each bone by just leaving it on the photographic plate. It's called an autoradiograph. These women, by the way, the ones who didn't develop bone cancer, many years later some of them started developing cancers of the head. Cancers of the sinuses and cancers of the mastoid. They also developed breast cancer. So there were actually a whole sequence of cancers that afflicted this population of young girls as a result of exposure to small amounts of radium.

Now, what has this got to do with uranium mining? Well, it turns out that uranium produces radium in the ground. So that when you mine uranium out of the ground the radium is there, too. But now the radium doesn't have the value that it had before because it killed to many people. So now they throw it away and they put it in the wastes. So they say, we don't want this material any more, it's too dangerous, so we're going to leave it for you to look after. And basically that's the deal with uranium mining. With uranium mining the deal is this: we want to come into your community, we want to give you benefits, we want to give you jobs, we want to give you training, we want to give you opportunity, but the deal is this, we take the uranium and go and you get the other stuff and it's your problem from there on in. And this radium is described by the British Columbia Medical Association as a superb carcinogen. It's a very powerful cancer causing agent. But that's going to be left behind if the miners have, if the mining companies have their way because they don't want to take it.

Now, there's another substance called polonium, which is also discovered by Marie Curie. Remember I said she discovered two substances? Radium and polonium. She named polonium after her native country of Poland. And polonium, as you heard a previous speaker mention, is the substance that was, Polonium 210 was recently used to assassinate a Russian man named Litvinenko, Alexander Litvinenko, who died a terrible death in Britain as a result of exposure to a very small quantity of Polonium 210. Now, the calculations show that he died in about 30 days a very painful death. A tiny

amount of polonium, about the size of a small grain of sugar, a single grain of sugar, would be enough to kill 1,000 men in 30 days. In other words, if you took that tine grain and cut it into 1,000 pieces you could kill 1,000 people with this tiny grain. And much smaller quantities than that can cause cancers many years later. The type of dose that will kill you immediately or in a short period of time is far greater than the dose that would cause you cancer maybe 20 or 30 years later. So this is one of the most dangerous materials ever discovered. Polonium 210. It's naturally occurring, but in nature it doesn't generally get out into the environment very much. Only very small amounts get out. Now, Alexander Litvinenko was still a fairly young man, but these images of his death sort of showed people just how potent a poison that was.

This is a chart from France which shows that the danger, the poison nature of Polonium 210 is actually much greater than the little yellow bar at the right is plutonium. We mentioned plutonium earlier. Plutonium is considered to be a very toxic material as well. Polonium is much more dangerous and the one beside it is Lead 210. Both of those are byproducts of uranium mining. When they come and mine the uranium they take the uranium away. They leave you with the polonium, they leave you with the Lead 210, they leave you with the radium. And these problems are problems which are going to persist for a long time.

Now, some people wonder, how could somebody possibly poison a man with radioactive material without killing himself in the process? Well, it turns out that polonium gives off a special kind of radiation which is non-penetrating. It's called alpha radiation. Now, if you carry Polonium 210 in a glass vial, in a glass container you don't get any radiation exposure at all. Because the rays cannot even go through the glass. In fact, they can't even go through a piece of paper. But once inside the body it's devastating to the living cells. So when this alpha radiation comes in contact with living cells it does a tremendous amount of damage. In fact, much more damage than the more penetrating kinds of radiation.

Alpha radiation was discovered by, way back in the early days, it's a very heavy, electrically charged particle stopped by a piece of paper, but devastates cells. A Beyda particle, you've heard of Beyda radiation, that's a very fast electron. It's much lighter. It requires a sheet of aluminum to stop it. A fairly hefty sheet of aluminum. And it has a negative electrical charge. It doesn't have a great deal of penetrating power, but it has more penetrating power than alpha. And finally, we have gamma rays which are more like X-rays and which can go right through you. And the gamma rays are also damaging, of course, but they're not as damaging as the alpha rays once they get inside your body.

Now, inside the body alpha radiation is admitted by the authorities nowadays as being at least 20 times as damaging per unit of energy as Beyda or gamma radiation. This is particularly important because most of the dangerous byproducts of uranium mining are alpha emitters. They emit alpha radiation. Which means you can measure low levels of radiation and say, look, it doesn't look very radioactive, but because it gives off alpha radiation it can be extremely toxic and dangerous inside the body. It's getting into the body, getting into the food chain, getting into the water, getting into your lungs that makes it dangerous.

Radon gas is a case in point. Radon gas is another byproduct of uranium which is a

gas, as it says, and which you therefore breath into your lungs. It's an alpha emitter as well. And so it irradiates the interior of your lungs and is very effective, as we found out, in producing lung cancer.

Yes? Slow down? Thank you very much for telling me. Yes, I was getting too fast again. Thank you.

So just to repeat, perhaps, that last sentence, is that radon gas is also an alpha emitting material, but it's a gas. So you can breath it into your lungs and it can irradiate your lungs and cause damage which will, many years later, develop into lung cancer. It's the damaged cells, all it takes is one cell which is damaged in such a way that it can reproduce. And it can reproduce so that it takes over and becomes a cancer. So one cell is all it takes.

Now, uranium miners do suffer. All uranium mining populations that have been studied long enough, and that means at least 20 years after exposure, that's how long it takes, have shown a significant increase in lung cancer. Studies published by the Atomic Energy Control Board years ago showed that the standards of radiation exposure, radon exposure allowed for miners would be expected to cause a quadrupling of lung cancer. That is, four times as much lung cancer as if they had not been exposed. And that goes for both smokers and non-smokers. Smokers of course get more lung cancer from smoking, but even they get their lung cancer rate increased by breathing radon.

Now, here is a photograph of, these are actually the tracks left by alpha rays inside the body. This is the body of an ape, an experimental animal who was forced to breath radioactive solid materials and that star shape there, at the centre of the star is an invisibly small particle of alpha emitting material. It happens to be plutonium in this case. Those spiky things coming out of the star – and I have a closeup of this here. Those spiky things are actually the tracks made by the alpha particles over a period of 48 hours. And you notice that they don't go very far. But inside that radius, inside that region there are probably 50,000 cells and those cells are being damaged. If we had left the camera running for another 48 hours it would be so black that you wouldn't be able to see any detail. So you can see visibly what is causing the damage. This is the same kind of radiation that caused the damage to Litvinenko's body and it's the same kind of radiation that caused the damage to the young girls who were the dial painters.

Now, although radon is a gas, although radon is a gas, it does produce solid byproducts and what it actually does is it produces three different types of polonium. Polonium 218, Polonium 214, and Polonium 210. So surprise, the radon is actually a delivery system for polonium. And that's what makes it so deadly. It turns out that when you breath the radon gas in you can also breath it out again. But inside your lungs it's changing into polonium. Also, if it hangs in the air for a long period of time it develops into polonium as well. So when you breath it in you're not just breathing in the radon gas, you're also breathing in the polonium. And that's what makes radon so dangerous. It is recognized as being the second leading cause of lung cancer after cigarette smoking.

So 85 percent of the lung dose is actually from the alpha emitting polonium. By the way, those polonium isotopes are all alpha emitters also. And I should tell you that the Polonium 210, dangerous as it is, is actually less dangerous than the Polonium 214 and 218. They have shorter half lives which means they're more radioactive and they're

actually worse than the Polonium 210.

Now, this brings us to the important subject of the uranium tailings. These are the mill wastes which will be left behind at the mill. Canada, of course, is one of the largest uranium mining enterprises in the world. This is an open-pit mine. A picture of the Key Lake Mine or one of the pits at the Key Lake Mine in Saskatchewan. This map simply shows that Canada is the largest producer and exporter of uranium in the world. This is from 2005. And that has been true for a long time.

Here is a map of Canada. We have copies of this map that you can pick up at the back there. It shows in particular the route that is followed by uranium as it comes from the mines in the North down to the refineries in the South before it is being exported to other countries. Most of our uranium gets exported out of the country to other countries. Of course, in the past a lot of our uranium was used for bombs. Those little bomb icons show you the mills that produced uranium directly for military contracts for atomic bombs. And then we have the peaceful uses, which came later, after 1965.

Here we see a picture of uranium tailings in the Elliot Lake region. Behind that wall there is a lake. That wall, by the way, is about 30 feet high. And behind that wall is an entire lake filled with sandy tailings. And in those sandy tailings are all the radioactive byproducts which were not taken out of the ore. So it includes all the radium, all the polonium, all the thorium, all the other materials which the mining company is not interested in. In this particular tailings pile there are 70 million tonnes, 70 million tonnes of radioactive sand. And by the way, in this particular case, all of that uranium was sold for bombs.

Now, this chart, I know it's difficult to sort of look at a chart like this, but at the top you see uranium and when uranium atoms disintegrate, when they undergo radioactive disintegration they turn into another substance, which is also radioactive, which is called Thorium 234. And when that disintegrates it turns into another substance. And then that is radioactive and it turns into another substance. And so what's happening in the ground is that uranium has a whole family of descendants. They're called the uranium progeny. Sometimes they're called the decay products. When you take the uranium away, here's what happens. All of these materials have the same radioactivity in the rock. I know that sounds strange as well, but it is a true fact. When you look at old uranium that has been in the ground for a long, long, long, long time it turns out that each one of these materials has the same amount of radioactivity, but some of them are more dangerous than others. Now, when you take away, so this represents the entire inventory of radioactive materials in the rock. When you take away the uranium you still have all those other materials left. And if you wait just a short time the short-lived ones disappear, but all those other ones remain. So that is what is left behind in the community. Eight-five percent of the radioactivity from the ore is left behind. Except for one thing, and that is that when it was there to begin with it was in the form of a hard rock and therefore very little of it was getting into the environment. Now it has been pulverized into a very fine sand or soup and it is much more available to the environment. It's much easier for it to get into the environment. That's, of course, why we have regulations, that's why we have technology to try and contain these wastes so that they do not get out into the environment. The problem is, however, that this problem is going to last for more than 80,000 years. It turns out that Thorium 230, which

is one of these radioactive materials, has a half life of 80,000 years and as long as it's there it continues to reproduce all those other materials: the polonium, the thorium, the radium, and the radon gas. They're all being continuously replenished by the decay of the Thorium 230. So it's a very long-term problem. Tailings management covers a period of more than 80,000 years.

How is my time? About half way through? More than half way through? Okay. I'm supposed to go from 2:30 to? Okay. Fine.

Tailings management is for more than 80,000 years and I would like you to think in this connection. It's very important to think about what this really means. We all have seen pictures of the pyramids of Egypt. The pyramids of Egypt are only 5,000 years old. So we're talking about a period of time which far outstrips the whole span of recorded human history. Much, much longer than the pyramids of Egypt. Now, the pyramids of Egypt, as you may know, are not in great shape. They have suffered deterioration. Quite a lot of deterioration. So when you look at these fine structures, and I'm not criticizing the engineers and so on who build these structures, but the question you have to ask yourself is are these structures really going to outlast the pyramids? And how much is it going to cost the community to look after these structures to make sure that this stuff, which is very dangerous material, is not spread into the environment where it can get into the food chain and get into the water system? Or for that matter, get into the air.

Now, it's complicated by the fact that there are many escape routes for radioactive material from the tailings. First of all, you have penetrating gamma radiation for anybody who is running or playing on the tailings. Children like to play on these things. Back in Ontario we have gone and we've seen signs that kids go and have picnics on these tailings piles. Or they ride their bikes or their dune buggies. It's dangerous. It's dangerous. Because there's radiation being given off by this material.

Also, the dust blowing, we've seen some terrific winds since I've landed here. I almost got blown back onto the plane when I first got off the plane here. That wind is very strong. That wind will blow dust. It will blow dust far and wide. And of course, when that happens you're spreading this material into the environment.

Here's an example of a tailings pile that has not been well managed. This is not like a Canadian tailings pile. The Canadian tailings piles are looked after a lot better than this. But this is in fact a tailings pile in Africa. When you can just see the dust blowing. By the way, when I visited those tailings that I showed you in Elliot Lake I could see the dust blowing. In fact, it had even drifted across the road. It was like snow. It just drifts across the road.

The other problem is that you get radon gas that is being given off in large quantities unless there is something to prevent it. Now, when you grind up the rock, when you make it very fine like powder it gives off a lot more radon gas than when it was a rock. Because when it's a rock most of the radon gas cannot get out. But if you simply pulverize it you can increase the amount of radon escaping by a factor of 10,000 or more quite easily. Or even a million or more. So you get a lot of radon coming off. Now, the radon gas is about eight times heavier than air, so it stays low to the ground and as it goes along it drops out the other materials, the polonium, onto the vegetation. Studies

conducted by the United Nations' Scientific Committee on the Affects of Atomic Radiation, it's called UNSCAAR, studies have shown that the caribou in the Northwest Territories have elevated levels of Polonium 210 in their meat. Just like I've told you before about the Cesium 137 from the bomb testing. The caribou also have elevated levels of Polonium 210 and, as a matter of fact, these are not elevated levels which are very, very high, but they're noticeably higher than in other animals living further south. And the same thing goes for the Inuit people. The Inuit people are showing more Polonium 210 in their bodies than residents of the South. And that is because of radon gas spreading out and depositing Polonium 210 on the vegetation. Any uranium mining activity can only increase that problem. It can only increase the amount of Polonium 210 that's available to the environment. And I think that's something that should be thought about.

The extent to which the Polonium 210 is allowed to get into the environment depends a lot on the engineering precautions that are taken. But again, those engineering precautions, who's going to look after them when the mining company is gone? Once the mining company is gone it's going to be the community's responsibility.

Now, it occurred to me years ago, why do we allow the companies to take the uranium and leave these other dangerous materials behind? Shouldn't we strike a better deal? Shouldn't we be saying to the company, look, if you want the uranium then you've got to take Everything. Don't just take the uranium. Take it all. Because if you want the benefit of the uranium you should take the problem too. And I don't, when we have improvements, when we have improvements in technology, when we have improvements in safety standards it's not usually because the company just voluntarily makes these improvements. It's because people have pushed them and forced them and passed laws and made regulations and said you must do this. And then the company responds because that is a condition of doing business. Now, it seems to me that it would be a more sensible deal if you want them to take the uranium you say, okay, take it all. You have to take the Thorium 230, as well. Now, you may not have a commercial use for it. Fine. But at least it's your problem and not our problem. And also take the radium. The radium, as you heard from a previous speaker, has a half life of 1,600 years. That's 1.5 thousand years. Take that away too. If you only take those two things along with the uranium, if you take the Thorium 230 and the Radium 226 you have greatly diminished the problem. Because as I told you before, it's the long life of the Thorium 230 which replenishes all those other materials. If you take away the thorium and the radium you then have a rather small volume of very radioactive material. That's where all the polonium is going to be as well. And you can afford to do some rather expensive things with that small volume. Instead of dealing with a very large volume, which is extremely difficult to manage.

Now, if that deal turns out not to be acceptable, then maybe you should say, well, deal or no deal. You know. You have to decide what are the terms that are appropriate in terms of the future of your community and the generations to come and whether you want to basically right now take advantage of the economic opportunities and the training opportunities and the jobs, which are very welcome, but then basically passing the problems on to your children and grandchildren and saying, okay, now, you may not have the jobs, but you've got the problem.

So now, the only other alternative that I can think of that would be perhaps equally satisfactory, but I don't think it's technologically possible, would be if they could put the tailings into as hard a formation as the rock was originally. If they could really solidify this stuff so that it's truly, truly hard, like the rock formation that it came from. Then you would be returning it, really you would be returning the site to a more natural condition. But when they say that they're retuning the site to a natural condition it's not really true. They're not returning the site to a natural condition. They're returning the site to a very unnatural condition.

Now, the reason I show this picture, these are reindeer. These are reindeer carcasses in northern Sweden who were contaminated by Cesium 137 from the Chernobyl accident. An accident that took place thousands of kilometres away. But these reindeer, they were not killed by radiation. It's just that the meat is not useable for human consumption because it's got too much of this bad stuff in it. This Cesium 137. So they put it into this freezer. You know, the Lapplander in Sweden, they herd reindeer and they harvest them. But these particular carcasses are just too radioactive.

You might be interested to know that even though the Chernobyl accident took place 20 years ago there are still farmers in northern England and Wales who cannot sell their sheep meat because of contamination by Cesium 137 due to the Chernobyl accident more than 20 years ago. That's a different story, of course.

Going back to the tailings. There's another problem with tailings and that is that people forget that this stuff is dangerous. And sometimes they build homes right on top of the tailings. Or they may take the tailings away and use it to make cement and use it as building material. This can be very dangerous for the people living in those homes. And by the way, it's already happened. It's happened in the community where I live in Montreal. We don't have a uranium mine, but we have another mine called a niobium mine which happens to have quite a lot of uranium in it. So it has the same problem, really, on a lower level. On a much lower level. They've sold over 200,000 tonnes of this material. They haven't sold it, they've taken it and used it for building materials until the government stepped in and stopped it. In fact, they found that the levels of radon in the homes were so high. This is a report about the radon problem dated 1998 about the radon problem in Oka just outside of Montreal from tailings which are not as radioactive as uranium tailings. This is a rather poor photograph, but you see that, that is a community there where they have a subdivision of homes, all of them badly contaminated with radon. The radon levels inside are quite alarming for the health of the people. The Government of Quebec has actually purchased up the land. They've spent $3 million just to buy up the land to prevent any more homes from being built there because it's too much of a health hazard.

So the difficulty is that unless you have specialized equipment, unless you have specialized knowledge, unless you have tools that can measure the radioactivity, you don't even know it's dangerous. It looks great. If you saw this stuff you'd say wow. What great, clean sand. It's beautiful for making cement or for using for fill in construction. And people do that.

We also have the problem of seepage into the ground water. Of course, I don't know very much about the Arctic environment and about permafrost and so on, so I don't know whether this applies as much here as it does down south. But certainly this is a

big problem down south because with rain you can get seepage into the terrain underground and that's a very serious problem. Particularly, sometimes when the rain comes into the tailings it can generate acid, sulfuric acid because of chemical reactions that take place. That can liberate the radium and the other materials so that they can more easily migrate into the system.

Here is some tailings that are now being looked after. They have been closed out in Elliot Lake. The mining company is now gone. This is a decommissioning. When they talk about decommissioning this is what they mean. Now, this decommissioning project, this is at Quirk Lake, the Quirk tailings at Elliot Lake, Ontario, and this is the kind of system they have. They have water covering the tailings. What's the water for? It's to try and prevent the radon from escaping into the air and causing the problem with the radon fallout. But then they have layers where they filter the water because the water, of course, collects radium and dissolves some of those other materials. So then they don't want that to go into the environment. So they have a rather complicated system here. Question: Is this going to last 80,000 years? And if it's not going to last 80,000 years what's going to happen? Is it going to fail at some point and you're going to have massive dispersal of this material into the environment which then cannot be cleaned up? Or how much is it going to cost to maintain this? Who is going to look after it? Who's going to put up the money for the next 80,000 years to keep this thing going? That's what we're talking about really. I think that's what we have to think about.

These are some other decommissioned mine sites in Saskatchewan. This is the JEB open pit at McLean Lake in Saskatchewan. When we talk about reclamation, this means fixing up tailings that have not been well looked after. Other countries have spent a lot more. Canada is one of the stingiest countries. We've spent less money on fixing up old tailings than anybody else. Now, I suppose if I was in the industry I'd say, well, that's because we do such a great job in the first place that we don't have to spend any money reclaiming it because it's all perfect. I suspect it's not quite that simple. Although there may be an element of truth to it, there's a lot of reclamation work that you've heard about which simply has not been done. Uranium City is a disgrace. It's simply a disgrace. It's a national disgrace. To allow the situation in Uranium City to persist the way it has with those tailings all over, it's really, I think, unconscionable. And also in the Northwest Territories at the old Port Radium site, that's also a disgrace. There's a lot of disgraces around in Canada. We don't have to look very far afield to find things which represent very bad management from the past.

Here's another thing that I'll just mention and that is radioactive rocks. This is actually from France. They have uranium mines in various parts of France and, of course, AREVA is a French corporation. In fact, this is the AREVA corporation operating in France. The same corporation that is going to be interested in developing things here. These rocks, which are just waste rocks that are sort of in the way, you know, you move them out of the way because you want to get at the good stuff, which is where the uranium is. These waste rocks, their uranium content can exceed 4,000 Becquerels per kilogram. That's 100 times above the average radioactivity of the Earth's crust. So they're actually quite radioactive. They're just not radioactive enough to be interesting to the mining company. The difficulty is that people take these rocks and they use them for various purposes as well. Here's a case where a citizen was keeping a sample of rock from the mine in her garden. She thought it looked rather pretty. A nice geological, you

know, pretty colours. Nice stones. Always dresses up a garden. It turns out that when people who are public interest people, not the authorities, but when a public interest group measured the radiation dose they found out that the dose at contact, just touching the rocks, was 5,000 times higher than background. That's the normal background that you normally experience with ordinary rocks. And they also found that if you stayed one hour, just one hour at one metres distance the cancer risk is non-negligible according to EURATOM classifications. EURATOM is the authority that looks after, regulates uranium in Europe. And if you stayed 10 minutes every day each day of the year the cancer risk is unacceptable. So just by staying in the garden 10 minutes every day of the year would give you an unacceptable cancer risk just because of these rocks.

So the problem is, who's going to keep track of all of this stuff? Who's going to label all those rocks and say don't use this rock, this rock, this rock, this rock, this rock, this rock, or whatever, because these rocks are dangerous? So now – thank you. Now, also, this, by the way, I just got this data recently from somebody I met in Sweden. I was in Stockholm, Sweden, giving a presentation at a nuclear waste conference there and these slides that I'm showing you here were taken from the presentation of the gentleman from the organization called Krevad (sp), which is an organization, a public interest organization that just does this for the public interest. And they found that downstream from the Cogema uranium mines in France, those are of course owned by AREVA, it's the same company, AREVA Cogema, they found that the radioactive contamination of the sediments in the stream and the plants in the stream were so high that they could deserve the terminology of radioactive waste. For example, they found these very high levels of Uranium 238 and Radium 226 per kilogram, thousands of Becquerels per kilogram downstream from these mines. Again, if nobody has the equipment or the expertise to look they don't even know it's there. So it's contamination which completely escapes. It's invisible. You can't see it, you can't smell it, you can't taste it. Unless you have the expertise and the initiative and the equipment, you just are never going to find it. That doesn't mean it's not harmful.

Now, this is the end, but unfortunately, as I say, it's not the end. I wish it were the end. Thank you very much for your attention.

---Applause

FACILITATOR: Thanks very much, Gordon. We'll have a short opportunity for questions, but I think we will take a break here until quarter to 4:00. There's been another slight change in the agenda. Some new updated agendas will be put on the table at the back, but there is a presentation by KIA on land use issuance just at the closure of, or at the conclusion of the scheduled last presentation for the day. It's a short presentation, but we would like you to stay for that. So when we come back at 3:45 we'll have a period for ... Sorry. Twenty to 4:00 we'll have a chance for questions. So if you've got any questions on health and safety issues about what Gordon's presented please bring them forward at that time.

—BREAK

FACILITATOR: Just, Gordon's got one other item to touch on and then I'll take some questions.

DR. EDWARDS: Thank you. Thank you very much. I just wanted to say something

about the nuclear renaissance because this is something that has come up several times. There's no way that nuclear power can possibly solve the greenhouse gas problem. I don't think even the most eager advocates of nuclear power claim that it will solve the problem. It may make a contribution, but a relatively small one and that's because it's only a slice of the electricity pie and the electricity is only a slice of the energy pie. Electricity is not more than 25 percent of the energy. So that you have to think about the overall picture. My personal belief is that if we push nuclear power really hard we may end up not solving the global warming problem, not solving the climate change problem, but creating more problems which are going to cost us a lot more money to deal with when we should be spending that money dealing really with the global warming problem.

So I just wanted to mention on aspect of this. Could I? No, I need this. I can do it. There's a lot of talk about the geological disposal of high-level radioactive waste. That's the material that comes out of the reactor that is so intensely radioactive that I mentioned. Containing all the broken pieces of uranium atoms and which remains dangerous for millions of years and which they do not know how to neutralize or render harmless. The only plan they have is to try and keep it out of the environment for the next 10 million years.

Now, the problem is, in my presentation before you noticed that I talked about the pool. You have to keep this waste in a pool for the first seven to 10 years. Usually about 10 years. And even after you take it out of the pool you cannot immediately put it underground. You have to wait until it cools off more because of the heat generation. It's too much heat. So here's my thinking on this. Imagine we have a nuclear reactor. That's the 'X' there. And each one of these dots is one year's worth of high-level waste being produced. Without geological disposal we have waste being produced after four years, after eight years, after 16 years. Now, the reason the colour has changed a little is because it gets cooler once it's been out for a while. So after the first 10 years it's a little bit cooler. And then 32 years, 40 years, and you see we have all this radioactive material beside the reactor, which is of course not very good to leave there. So the industry has a plan for this and it's called geological disposal. It means, let's put it underground. But after two years, of course, it's not going to make any difference because it's too hot to put underground. After four years, no difference. It's still too hot. After eight years it's still to hot. After 16 years maybe, I think it's actually still too early, the Nuclear Waste Management Organization says maybe we should wait for 30 years, but you may be able to put that part underground if you're lucky. So hurray. But of course you also have the 10 years' worth that is not underground.

Now, as the more waste is produced you can put all the older waste underground, but the industry uses this argument to claim that we can now expand the nuclear industry and built more reactors because we have solved the problem of the radioactive waste. But look what happens if we build another reactor? Now we've got twice as much unburied waste. Even though we're putting it underground as fast as possible, we now have 20 years' worth of unburied waste at the surface. And if we build more reactors and more reactors and more reactors, even with geological disposal, even burying the waste as quickly as humanly possible, even quicker than humanly possible, we have an ever growing inventory of very dangerous high-level radioactive waste which is unburied at the surface.

So I think this is an important thing to consider because the idea of geological disposal does not really eliminate the problem at the surface. The catastrophe potential at the surface is still very large. Now remember, the Chernobyl accident only involved one year's worth of irradiated fuel. Here we have 10 years' worth for each reactor. So my contention is that if you really talking about removing the problem, eliminating the problem from the surface of the Earth, the only way you can really do it is if you phase out nuclear power, as Germany is doing, for example, Germany has already shut down two of its 17 reactors. And by the way, they are the country in Europe which is leading the way on greenhouse gas reductions. They are the best of all. And they're doing this while they're phasing out nuclear power. In fact, in the last 10 years Germany built 16,000 megawatts of wind power, which is not exactly the same as nuclear power, but 16,000 megawatts is more than the entire Canadian nuclear program. And they built this in only 10 years. All I'm saying here is that one has to look further afield than just, one can't react in a panic mode about greenhouse gas and climate change. One has to ask, what is the best approach to deal with this problem on a more permanent and sustainable basis? That's all I have to say on that. Thank you very much. We can shut this off now.

FACILITATOR: We've got a short period for questions here on the health and environmental aspects of Gordon's presentation, some of the topics he's talked about. I'd just like to offer the first opportunity to the IPG's, if there's any questions directly from the table. Anyone on the floor have questions? If I could ask you to speak into the microphone, identify yourself, and try and be as clear as possible. Thanks.

Health and Safety Issues – Q & A

MR. MACISAAC: Thank you. It's Brian MacIsaac with INAC. It seems from your presentation one of the biggest issues was tailings disposal. And then you mentioned this idea about somehow compacting the tailings into as solid a block as possible. I think you referred to it as bringing it back to as close as you can to the original state. And presumably that's the block water movement through it. With the environment here, with permafrost and disposing of tailings in that type of environment, which I would think creates the same kind of impact, I guess, as what you were talking about where you end up freezing this mass of tailings, what's your view on that?

DR. EDWARDS: Well, that's an interesting thought and if you could be sure that the permafrost is going to be that stable for the next 80,000 years, then I think, you know, it's something to think about. There are problems, however, in terms of a climate change, as well. If nuclear is not going to stop the climate change then you could have problems with the permafrost being the vehicle for preventing the material from getting out. But it's an interesting idea.

There is also a problem of volume. It turns out that when you excavate the rock you generally have twice as much volume by the time you crush the rock into the tailings. That's one reason why backfilling, you know, putting it back into the mine shafts. Usually there's too much material to put back because of the increase of volume. So what they sometimes have talked about trying to do is to put back some of the most radioactive, the most active material into backfill. But then you have to be very careful that it's not going to cause you problems through seepage into groundwater and so on. As you point out, here in the Arctic environment with the permafrost, things may be

possible that aren't otherwise possible. It's worth thinking about. But one has to ask yourself, is it really reliable over the long term?

FACILITATOR: Thank you, Brian. At the back.

UNIDENTIFIED MALE SPEAKER: Thanks, Nick. Bernie MacIsaac asked exactly the same thing I was going to ask. So it's fine. Thank you.

FACILITATOR: Okay. We've got Peter here from the commission.

MR. KRITAQLILUK: Thank you. In your presentation earlier, when you first started, you kept talking about the nuclear bomb and nuclear bomb testing that happened in the American desert. When were these, I thought the nuclear bombs had been banned both in America and Russia.

DR. EDWARDS: Yes, there was an atmospheric test ban treaty which stopped all testing. And it's very interesting how that came about. It came about largely due to very strong public protests over the health effects of the radioactive materials getting into the food and into the water. So that without any treaty the American government stopped unilaterally. They stopped atmospheric testing. They stopped the testing of the bombs in the air. Within a few months, the Soviet Union followed suit and they stopped testing the bombs in the air also. And that was followed almost a year later by the treaty. Now, at the present time, they also talked, at that time they were even close to signing a complete test ban treaty, which would not only ban the tests in the air, but all nuclear tests. And that's what people are trying to achieve right now.

I believe myself that unless we humans as a planet, we do have to come to grips with global warming. It's very serious and we have to deal with it. We also have to deal with the spread of weapons of mass destruction. And I think we cannot be hypocrites about it. I think we should, Canada should be taking the lead in trying to get all countries to get rid of their nuclear weapons, including our allies. Including the United States, Britain, France and so on. Because one cannot run the world on the basis of a double standard. If you're going to tell third world countries that they cannot have nuclear weapons then how do you justify having nuclear weapons yourself? We should, I think, as a people we should be pushing our government to really stop the production of nuclear weapons all together and to stop the testing of nuclear weapons all together.

I personally believe that until that's done the spread of peaceful nuclear technology just makes the problem worse because it spreads the materials around from which these bombs can be made without stopping the bombs themselves.

MR. KRITAQLILUK: Now, the other question I got is, earlier this morning there was a presentation made by Brian Reilly who said that the uranium that's taken out or taken in this country doesn't get used for nuclear weapons in other countries. How do we know that?

DR. EDWARDS: Well, we don't. As a matter of fact, I believe I know the opposite. In fact, I have, this has even been raised in the House of Commons, in the Parliament. When we export uranium it goes to the United States or to some other country for enrichment. It's called enrichment. And when our uranium goes into the enrichment plant only a small fraction comes out the other end and goes to the customer. It's called slightly enriched uranium or low enriched uranium. But there's all this byproduct

uranium that goes out the back door which is called depleted uranium. And we know for a fact that the military has been using this depleted uranium not only for conventional weapons – you know, the bombs that we talked about, armour penetrating bullets and missiles and so on. You might have heard about these depleted uranium weapons. Not only is it being used for that purpose, but it also has been used for decades, even despite Canadian policy, it has been used to produce the plutonium in the atomic bombs as well. So in fact, this depleted uranium which is a left over of the civilian processing of our uranium is being used for weapons without our consent. But what happens is that we basically say to the Americans, we don't want that depleted uranium; you keep it. And the Americans make no distinction between Canadian depleted uranium or any other kind of depleted uranium. And they just help themselves to this. And they do use it, in fact, for military purposes. So it's very hard to draw that line between the atoms for peace and atoms for war. Even George Bush knows that, that's why he's so upset about the Iranians building an enrichment plant. Supposedly for peace, but how do you draw the line.

FACILITATOR: Thank you. Down here.

MR. LAIDLAW: Thank you. My name is Angus Laidlaw (sp). I'm with the Canadian Nuclear Safety Commission, Non-proliferation and Export Controls Division. It is not a question so much, although it might turn into an exchange, but a comment. I think I have to take issue with your last statement, sir. All of the uranium that Canada exports to the United States, and indeed for nuclear use to every other country, is exported under a nuclear cooperation agreement, as you know. And these are fairly solemn treaty status agreements between two countries, each of which declares and undertakes not to use any of that nuclear material, that uranium for nuclear weapons. The treaty with the United States goes back many years and I think it's factually incorrect to suggest that the depleted uranium that is produced as a byproduct in the United States of the enrichment process is being used by the United States for weapons purposes. That uranium is sent to the United States, the US government declares that it's going to be used for purposes of producing fuel. It is part of an inventory of nuclear material that the Canadian government and the US government reconciles each year, and the inventory which, the inventory includes these depleted uranium tails, all of which, it is true as you've said, are put essentially in a pool. But there is a sufficient quantity of that nuclear material, that depleted uranium for the Canadian authorities to be satisfied that it's not being used to produce nuclear weapons. So I just wanted to indicate to you that we believe that, we believe in those particular undertakings.

FACILITATOR: Thank you. I believe that was more of a comment or response to a response here and noted. We don't' have a lot of time. We've got more questions. So maybe we could carry that on afterwards. But the gentleman behind. Thank you.

MR. REDIRON: My name is Rene Rediron (sp). I'm from northern Saskatchewan. Dr. Edwards, I thank you for your presentation there and I guess to better understanding about uranium and the so-called dangers. But as a northern aboriginal person I see myself before in a community very similar to Baker Lake, isolated. The only difference is at that time we didn't have technology of satellite dishes and Internet and whatnot. I guess my question is for you, what would you think would be an alternative for an aboriginal people to try and better themselves? The younger persons in particular? Like,

I was a commercial fisherman and a trapper pretty near half of my life and I wanted always the better for my children. And in an isolated community there was no hope of that betterment. So I guess what I'm saying is, I want my children and my grandchildren to have good education and good paying jobs. I don't want my children to hunting for the next 88,000 years, as you said there. So I think you have to look at us and we want betterment for our lives too. That's what we see in opportunities as development.

DR. EDWARDS: I understand exactly what you're saying and this is something, I have visited northern Saskatchewan and I'm well aware of the need for jobs and economic development and for money to come into those communities to fuel the kind of things that you're talking about. All I'm saying is that I think people are entitled to know the facts and they're also entitled to make a fair deal. And I think that in the case of northern Saskatchewan a lot of these deals were concluded at a time when I don't think there was the awareness or the feeling of empowerment that might be taking place here now. I do believe that there are other economic opportunities that have been talked about. I am not directly knowledgeable about them. There's diamond mining, there's gold mining, there's other types of economic opportunities. I think in the case of uranium mining it's important to realize that maybe now is the time to make a tougher deal because it's the ratchet effect. You know? You can gradually make the thing a lot tougher than it was before. Why should it be so easy for these companies to waltz in, take out enormous profits, they're really taking out the mineral wealth of this region, and they're making a lot of profits out of it, and then they turn their backs on it and they say bye-bye, we're out of here. And it's not up to use to look after the problems for the next long period of time. I think that one can make a better deal than that.

I think that maybe you should appreciate the fact that perhaps if there is indeed a shortage of uranium and it's not just another repeat of what we had in the early '70's, the prices shot up partly because of an illegal price-fixing cartel that was secret, and by the way the price back then was $40 a pound. That's almost the same as the price that we see now in terms of constant dollars. But then it just goes back down again and the economic benefits don't really materialize to the extent you wish.

All I'm saying is that given the past history of this industry people would be well advised to look before they leap. I'm very concerned that when the Baker Lake flood happened, no, not Baker Lake, I'm sorry. When the, what's the name? McArthur. When there was that flood at McArthur River they sent workers down into those very high radon areas without any protective equipment for 48 hours. And those prism monitors that were talked about earlier by the man from Atomic Energy Control Board, those prism monitors were going red all the time and they were just turning them off. And the Atomic Energy Control Board, unfortunately, is not really looking after as well as they might the welfare of the people who are putting their lives on the line.

FACILITATOR: Thank you, Gordon. And thank you for the questions. I know we've got another one here, but I think we've got to move on and we can take that for discussion later. I apologize for that. Thanks very much, Gordon, for your presentation.

Health and Safety Issues (Continued)

Okay. Unfortunately you've still got to hear from me. I'm just going to make a brief delivery of a presentation by Pat Thomas, who is unable to be here, but a researcher

that's done some work in the area and was very interested in attending, but could not attend. And so I've got a brief presentation on her work.

She did work here in the '90's on the lichen-caribou-wolf food chain and a bit of information to present here to you. She asked that we thank a local family, as well as the hunters in Baker Lake that worked with her at the time. And just following from her presentation, uranium in the ground is natural. It breaks down through 14 different steps, which are all radioactive. And leading to different products at different stages which are important to the food chain.

In terms of the lichen-caribou-wolf food chain, the breakdown of uranium creates a radon gas which forms Lead 210 in the air and can through rain falling it, the Lead 210 falls onto lichen and changes to Polonium 210. Caribou eat the lichen and transfer the Polonium 210 to wolves and people who eat the caribou. And this naturally increases people's radiation dose.

Some of the 14 decay steps are more harmful than others and she's circled the ones that are more harmful than others.

Breathing uranium dust can hurt your lungs and drinking large amounts of uranium in water can hurt your kidneys. Drinking water with Radium 226 can give you a radiation dose to your bones. Breathing of radon gas will provide a radiation dose to your lungs. And as stated before, lichens collect Lead 210 and Polonium 210, both of which can give a radiation dose from eating caribou.

Uranium mining brings the 14 steps out of the ground. Crushing the ore creates dust and the milling removes uranium and leaves the other radioactive steps in the tailings pile. Tailings need to be buried or they may create dust. And as it says here, if you have a deep pit you can bury the tailings below the water table away from people and sometimes tailings are deposited above ground and, as we've seen in some other presentations, may create dust. Again, dust that's generated from the milling and tailings can be disbursed and deposited on lichen that caribou eat.

So what can caribou mining, or what can uranium mining do to caribou? Well, there's been some work in northern Saskatchewan on moose from near the uranium mines and what Dr. Thomas has found is Polonium 210 levels in moose liver and meat were higher near the uranium mine. A statement that caribou may be more affected than moose if the tailings and dust get into the lichens that caribou eat. In addition to the direct exposure there may be some disruption of migration and calving as a result of mining in the Keewatin.

Summary of potential health and environmental effects. People eating caribou already get a naturally high radiation dose from Polonium 210. More mining and milling dust may get into lichens that caribou eat and increase this dose. Radium 226 may get into water supplies from the tailings and there may be a disruption from mine operations on migration and calving.

And my apologies to Pat Thomas. I'm sure she would have presented this in much better detail. But this will be available in the report and, again, appreciation to Pat for coming through with this. And she did very much want to be here. Thank you.

Thank you very much, Sharon. Okay. Moving on now, we've got Doug Chambers of

SENES Consultants speaking on radiation safety, health and safety issues related to uranium mining and milling. Turn that over to Doug here.

Radiation Safety – Health and Safety Issues Related to Uranium Mining and Milling

MR. CHAMBERS: Good afternoon. It's a great privilege to be here. I look forward to discussions that will take place tomorrow, tomorrow evening and Thursday. And I'm certain after Dr. Edwards' talk that there will be many questions that people will have that we can get into again tomorrow night or Thursday, or tonight after the session.

In any event, my name is Doug Chambers and I've been involved in health physics radiation protection for more than 30 years. I'm going to be talking about health and safety issues. I'm not very computer proficient, so I may go backwards occasionally.

There's four main topics I'm going to be talking about today and I, too, like Dr. Edwards and others, like speaking quickly. So please, someone stick up their hand and say go more slowly for the translation.

I'm going to be talking first of all about occupational health and safety in mining. And then I'm going to be talking about how you protect miners from radiation in the workplace.

There's been quite a bit said about what the risks are from exposure to radiation. I'm going to present arguments later that in fact we do really quite well understand the risks from radiation and they've been well studied and are well understood.

And finally, I'm going to comment about risk to uranium miners. And I would like to make on additional statement that's not really a rebuttal, just a clarification. The Canadian Nuclear Safety Commission really does support epidemiology studies. In the last several years the Canadian Nuclear Safety Commission has been a participant and supported epidemiological studies of the Eldorado miners, which includes the Port Radium Mine and the Beaver Lodge Mine, the Newfoundland Flursbar (sp) Mine, and now they're a coal funder of the update of the Ontario Uranium Miners Study. So I just wanted to correct that because they are indeed supporters of research into areas that are important to the regulatory mandate.

With respect to occupational health and safety, in addition to radiation risks we have the normal hazards that are associated with mining. Rock falls. You're working around heavy equipment. If you're an electrician the possibility of electrocution. If you're climbing a ladder, falling off a ladder. So other than high levels of radiation the hazards are exactly the same.

I think I might also add though, whenever you mine, all mines have radioactivity. All soils and rocks are radioactive. And some of the epidemiology studies that we look at at Unskere (sp) and other places include iron ore miners in Sweden. And so every time we mine we have to be conscious of the fact that there is a little bit of radioactivity that is moved along with the broken rock and the ore.

Mines, uranium mines in particular, have a proven record of excellence. This is a picture of some miners in an open pit standing beside a large truck. I'm not very good with the microphone, so again, that's another thing to remind me.

This slide is probably totally illegible from the back and I apologize. I wish we had a bigger screen. On the vertical axis you have percentage of workers who have lost time accidents in a variety of occupations. This line is the Canadian average over all occupations; working in an office, working in a mine, forestry, farming, working for the federal government in an office in Ottawa. Saskatchewan it's a little bit higher averaged over all occupations. Uranium mining is down here. It's about six times smaller than the Canadian average in terms of lost time incidents. Non-uranium mining in Saskatchewan is this blue line. It's about twice as high as uranium. I can't quite reach over there, but the greenish bar far over from the left is industrial construction.

I'm going to be totally hopeless now with two things in my hands. I'll probably bind myself as well. Okay. Help me, Heidi. Where's the button? That little red thing. Thank you.

This one right here is industrial construction in Saskatchewan. This is residential construction. And I think part of the difference comes, when you're in uranium mining you have tremendous programs related to safety training. Regular safety training and drills and practices. And I would suggest that residential construction, those practices and training programs are perhaps less intense. And as an aside, if you're an office worker you're also higher than uranium mining in terms of lost time accidents.

What is radiation? Radiation is everywhere. There's radiation in this room. We're all breathing radon. Good heavens. It's everywhere. It's unavoidable. And it's usually variable from place to place. If you live in a rock house you're going to have higher radon levels. I will be talking about background radiation and radiation protection in a few minutes.

It's already been mentioned that radiation is sort of a form of energy. Radiation we'll be talking about in a minute comes in the form of from the disintegration of an atom. It's unstable. It releases gamma radiation. And I have a slide in a minute that will explain what that is. That's an electromagnetic radiation. And we also have two kinds of particles, alpha particles and Beyda particles, that are common in the uranium industry that we need to talk about as well.

In any event, emission of radiation is a form of energy. And again, this slide will probably not turn up. I'm obviously not used to stage productions because I can't keep the microphone at a proper distance. On the right hand side here you have radio waves, micro waves, infrared light that we see with, ultraviolet where we worry about sunburn, x-rays that are a major source of radiation, and gamma rays. And the gamma rays are really what we're talking about in terms of electromagnetic radiation from uranium mining.

I mentioned earlier that there's three major kinds of radiation associated with uranium mining. Gamma radiation, which is a wave-like electromagnetic wave that will penetrate paper and wood, but will be absorbed by concrete or steel sheeting. Beyda radiation, Beyda particle is like an electron. And it may not be absorbed by a sheet of paper, but certainly by a piece of wood. And the Beyda particles that we get from uranium mining are totally shielded by a pair of safety glasses. So you're protected from that perspective.

Alpha particles that are the concern with radon and Radium 226 and poloniums are only

a hazard if they're taken into your body and deposited internally in some organ. But externally they're totally shielded by your skin or by a piece of paper.

As I mentioned earlier, ionizing radiation is a part of our natural environment. It's everywhere. And natural atoms such as uranium, thorium, Potassium 40, and other naturally occurring radionuclides are everywhere. All soils, all rocks contain uranium and thorium. Our bodies contain Potassium 40. Bananas contain Potassium 40. Brazil nuts contain Radium 226. It's unavoidable.

Why are some atoms radioactive? It's basically because they have too much energy to stay together. They're sort of like a hyper child. They're really hard to contain. And we sometimes use a popcorn analogy. You stick popcorn kernels in a heater and you heat them and they pop and they bounce around. They change. There's energy involved and they change from the hard kernels to the popcorn. And similar to popcorn with the radioactive atom, when they give off their excess energy in the form of a gamma ray or alpha particle or Beyda particle they eventually transis to a more stable atom. And the Uranium 238 decay chain eventually becomes a stable lid.

I'm going to try a short analogy to introduce some radiation protection issues and I'm going to try to discuss radiation protection in terms of a campfire that we're all familiar with. It's a nice scenic campfire in the picture on the right hand side here.

As I mentioned before, uranium mines have radiation in there types. We have gamma radiation, which is a wave and it's very penetrating and will go large distances.

Radon and the radon decay products are sort of like the smoke that we have at a campfire. And to avoid the smoke you stand upwind. And you don't want to breath that because you know it's not healthy to breath the smoke. And similarly with radon you don't want to breath the radon if you can avoid it. And finally, in terms of the particles you can imagine from the campfire, the particles are sort of like the dust that you have from a campfire. Little specks of particles that come from a campfire on a wind. And you don't want to breath those either.

Gamma radiation is transferred like heat. If the computer is a campfire the closer I get to the fire the hotter it gets. The further away I go from the campfire the cooler it is. So one of the ways of protecting workers is to control how much time you spend close to a radioactive source. And I think that's an important thing. And it's sort of intuitive. It's obvious. The closer you go to a radioactive source the stronger the source is.

As I mentioned earlier, radon gas and the decay products are transferred like smoke from the campfire. And none of us want to inhale the smoke from a campfire, so obviously we stand upwind. And in a uranium mine you're always provided with fresh air. And the fresh air comes in, it goes over you, over the workplace, and is exhausted out downstream of where people work. So the idea here is to provide fresh air to workers in a uranium mine.

Finally, along with radioactive dust these are the particles of dust that you get from tailings or from breaking up rock in an underground environment. And you don't want to breath these either. And they're transferred like soot. So you don't want to breath them and if they get on your clothing or your skin you want to wash them off.

As I mentioned earlier on in this presentation, we're always, no matter where we are,

surrounded by radiation. It's everywhere. All soils are radioactive, typically containing two or three. In all soils virtually everywhere, for every million atoms you'll have two or three atoms of uranium and two or three atoms of thorium. It doesn't matter where you are. In some cases, such as Oku Kulek (sp), you could have 100 times that, but that's natural. Similar in Elliot Lake. You have outcrops of quartzite-like rock that they used to mine for uranium. So it's not surprising that some rocks and minerals have higher concentrations. And as I said, it's all around us.

Sources include cosmic radiation from outer space. We have radiation from outside the earth and it comes through our atmosphere. And this comes from the Sun and other sources. And when you fly you're exposed to more cosmic radiation because you're closer to the Sun. So you're simply closer and you're not protected by the atmosphere as much because the atmosphere protects us from cosmic radiation. I think that makes sense. Right? We're shielded by the atmosphere from cosmic radiation. And if you're a pilot or a member of an airline crew you can receive very high exposures. Exposures comparable to what a nuclear energy worker gets by flying back and forth from Toronto to Vancouver, for example.

Uranium and thorium in rocks. All kinds of rocks, all kinds of soils. And as I mentioned before, natural radionuclides in our body.

I only have a few slides where I actually have something about radiation units and they're in these funny terms called milliSieverts. And that's just a special unit to measure radiation dose. And it's used universally. It's an international system of measuring radiation.

A typical dose is one to three milliSieverts per year. One to three radiation units per year. But according to reports like UNSCAAR (sp) 2000, the range can be larger. It can be ranged from one to 10. And for example, if you live in central Florida, central Florida has a lot of phosphate rock. Phosphate rock is naturally radioactive. And there's a band of land that runs from Tampa to Orlando, the home of Disney World, that is actually quite radioactive because of the phosphate rock. And the radon levels in that part of Florida are much higher than they are in other parts of Florida simply because of the natural radioactivity that's in the rock on which people build their homes.

Similar if you happen to live in Korala, India, or Monositesans (sp) in Brazil, the radiation levels can be much higher as well from naturally elevated thorium levels.

What do your radiation dose depend on? I've already talked about how it depends upon where you live. If you live in an area where there's more radiation or radioactivity in the soil then you're going to have a higher dose. Similarly what you eat. I eat bananas. Bananas contain Potassium 40 and you get a radiation dose from eating bananas. According to the UNSCAAR report that will be coming out next year medical radiation for diagnostics now exceeds natural background radiation as a major source of exposure for people in developed countries. It used to be about a third. Now it's double that. And part of this comes from the practice that I think is questionable of advertising every time you go to the doctor you have to have a CAT scan. Indeed, in the United States now they have mobile CAT scans on portable trailers. They drive around and say for those who are older, like me, when we were a child we used to have chest x-rays for tuberculosis. And now in the States they're promoting portable CAT scans. Whether

that's a good idea or not is something else. But medical diagnostics is a major source of radiation.

Here's another illegible slide, unfortunately. This green one on the left is information from UNSCAAR 2000 report. That's the United Nations Scientific Committee on the Affects of Atomic Radiation. I'll come back to UNSCAAR in a few minutes. And I like to talk, so can you give me lots of time warnings? I want to hear you through my slides. In any event, about 2.4 of these milliSieverts, these radiation units is a typical natural background, but this can be up to 10 times higher depending on where you live and what you eat and what you're habits are.

Air travel is 0.1 units and that basically would be two trips, Toronto-Frankfurt. I've been to Europe six times since January. Partly for UNSCAAR meetings and other meetings. So I would have actually close to one milliSievert radiation just from flying back and forth to Europe.

Medical radiation, this is from the previous UNSCAAR report, it's about 0.6 units on average. And since not everybody has x-rays or CAT scans that means the individual dose can be very much higher.

I didn't see on Pat's slide the actual dose from the consumption of caribou, but it's about 1.7 milliSieverts from natural background sources. And I might add, and I think Pat did allude to that, all soils and rocks are radioactive. You have radon coming from the ground. It decays in the air as it transport to Lead 210 and polonium. This is deposited on plants, but particularly is accumulated in lichen. Caribou, especially over the winter, eat a lot of lichen and their body builds up in polonium. In any event, forever, people eating caribou have been receiving about 1.7 milliSieverts or radiation units of dose from natural background. This applies not just to Canadian caribou, but through Norway and Scandinavia and other places as well. It's a natural thing that we've all been exposed to for thousands of years.

The average dose in uranium mining in 2006 was half a milliSievert. One of the important principles in radiation protection is this concept of ALARA. What the heck is ALARA? As Low As Reasonably Achievable. And basically what we have is we have radiation protection standards which are based on international guidance. UNSCAAR provides the scientific review. The International Commission on Radiological Protection – and I apologize to the translators because this is not in the notes – provide generic reference radiation protection guidelines that most countries in the world, including Canada, follow.

But it's not good enough to simply meet the Canadian guidelines or the International guidelines. There's a strong expectation that you will do Everything that's reasonable to make sure that people that work for you actually receive less. Okay? Less radiation exposure. And that's the ALARA principle. You want to do whatever you possibly can reasonably do to make sure the exposures are as low as you can make them. And uranium mining companies in Canada and the United States and elsewhere follow that principle.

And it's not a surprise. I have a son and a daughter. They're terribly different. When you try and tell them what to do you have to deal with them differently. They're different individuals. They behave differently. So you need different child management

strategies. Similarly for different sources of radiation, you control them in different ways. Some of them with distance, some of them with shielding, some of them with ventilation.

As I mentioned before, time is important. You want to minimize the time that you spend near radioactive sources. That's sort of common sense. And therefore there's efforts to automate equipment. So you minimize the time that you have to be in areas with high radiation levels.

This is an example at McArthur River. This man has a, he looks like a computer game. He's wearing a control at his waste and that actually is a remote control LHD, load-haul-dump vehicle. And you can't see it in the background, but there would be an ore pile with broken ore in the background. And he's picking that ore up with this remote control vehicle. That basically means he's away from the source. So his exposure is low. It's controlled. And this is in practice. For those of you who've seen the mines in northern Saskatchewan, that's current practice.

These are examples of shielding in the McLean Lake mill and the operators behind a concrete wall. Because radiation, the gamma radiation in this case, is shielded by concrete and heavy glass. And obviously the operator would also be provided with clean air that's not contaminated by uranium ore.

This is a picture of a radiation technician underground, again at McArthur, measuring the air flow. You remember as I mentioned, the fresh air is provided upstream of where the workers are. It goes past the worker, past the source of contamination, and is exhausted through the mine. So it's very important to know how much air and how the air is distributed in the mine. So there's regular surveys.

This is an example of an underground slurry tank at McArthur River as well and the stuff isn't slopping around on the floor, it's contained in vessels in an isolated room.

I don't have time, if I had three hours I could go through all of the equipment. I have a box here. Everything that's shown there is in this box. I'd be very happy to talk to people and show people how it works tomorrow. We actually have a small radioactive source so you can see the effect of putting a sheet of paper or piece of foil or a piece of work or lead in between the source and the radiation metre. And we'll have this here tomorrow night as well. But in any event, you measure radon, radon and dust, radon, gamma, gamma, dust. Lots of ways to measure radiation. It's well controlled.

This is the stop light system. It's easy for miners to recognize. You don't have to think hard. It's just like your street lights. Red means stop, green means go. And it's that simple. And it's been very effective at helping to control exposures to radon decay products.

I have two quick slides. The first activity that's going to take place here is going to be uranium exploration and people might be worried about what kind of radiation doses people involved in exploration might get. Well, the major source of radiation dose in exploration is external gamma. Because you're in the open air. You don't have the possibility to be exposed to radon in a confined place. And this shows core from a 10 percent, that's a very high grade core, and the measured values are 0.001 radiation unit at one metre. And here's the dose rate during a jet flight at 35,000 feet. That's 0.005 radiation units per hour.

So basically, if you're a geologist who's handling the core it's more or less getting the same radiation dose as I would get flying from Toronto to Vancouver or from Toronto to Frankfurt. And for example, a dose from a return flight between Winnipeg and Toronto is 0.04 radiation units and that would be equivalent to a geologist inspecting core for 40 hours.

This is a slide that to me demonstrates the effectiveness of the ALARA principle. The top line is the regulatory limit in any single year. That's 50 radiation units. And probably by the time I finish the presentation I'll learn how to use the microphone. The average annual nominal limit is 20 radiation units. And across the bottom you have the actual experience at all of the operating sights in northern Saskatchewan. McLean Lake on the left, Cluff Lake, which is in decommissioning, McArthur River mine, Key Lake mill, Cigar Lake mine, and Rabbit Lake. And the little blue bar is the average. And the maximum exposure is a single individual worker who receives the maximum exposure in a given year. Even the maximum exposure is well below the regulatory limit and on average the individual workers are very much below the 20 milliSieverts per year radiation units.

We don't have time to go into details, but there are very well-established mechanisms called exposure pathways analysis whereby people look at all the ways that radioactivity can be transported from a mining or milling or tailings activity to people living in the area. Breathing the air containing radon or dust, drinking the water, eating the fish, eating the moose that we saw earlier, eating caribou that are captured locally. And of course eating berries.

And this is a composite from a number of very recent environmental assessments that have been done in northern Saskatchewan. The nearest village, a trapper who actually runs trap lines immediately adjacent to the mine site and who spends considerable time in the area. We obviously have fishing lodge operators in northern Saskatchewan. It's a very popular activity. And we have a camp cook who was not a radiation worker. He's someone that comes in and provides food services. And basically public dose limit is one radiation unit. The actual doses are all 10 times smaller than the limit. And this again is good radiation practice in my view.

Conclusion for the first part of my presentation is really covered on this slide and the next slide. We understand the sources of radiation in a uranium mine and they're easily monitored and controlled if we know about them. Which we do.

There's a strong, I have to give credit, notwithstanding the criticisms that we heard, the Canadian Nuclear Safety Commission is a strong regulator. They routinely inspect the sites. They certainly inspect the records. I will add the dose records are supplied to something called the National Dose Registry. So there is a permanent record in Health Canada under something called the NDR, the National Dose Registry, where the individual doses of everyone who works at a licenced facility are kept in case studies have to be done in the future. These aren't rigged. They're inspected and there's a well thought out process for documenting.

And finally, the uranium industry in my view does a good job providing a safe workplace and protecting people and the environment. And we'll hear tomorrow several presentations on the environment.

I'm changing horses here momentarily to try and deal quickly with the last two bullets.

How much time do I have left? Okay. I'll try and do each of these in the five minutes.

It is basically, health effects of exposure to radiation are very well understood. And unfortunately, much of the information comes from people who have been exposed to radiation and this is called epidemiology. Epidemiology is really the study of people who've been exposed to radiation.

Major source of information is what's called the lifespan study. In effect though, that's the study of the Japanese atomic bomb survivors. We also have information from people who were exposed to radiation for medical practices. We have children who were exposed in Nova Scotia for tinea capitis for ringworm, x-rays to the skull. That's great medical practice. The Germans used thorotrascaroscopy (sp). For those who might be older, I can remember looking at my feet through a fluoroscope and wiggling my toes and seeing my bones move. Dr. Edwards talked about the radium dial painters. We have a lot of epidemiology on uranium miners. And we have nuclear worker epidemiology studies.

And very importantly, over the last 10 years we now have a large number of case control residential radon studies and indeed two important polled (sic) studies. Thirteen case control studies polled in Europe and 10 in North America. And I'd be happy to answer questions about those tomorrow. I don't have time, I don't think, in the next 10 minutes.

UNSCAAR, United Nations Scientific Committee on the Affects of Atomic Radiation. It's the lead agency of the United Nations on health affects and it was established in 1955. All agencies in the UN system take the advise of UNSCAAR with regard to health defects.

UNSCAAR reviews all scientific literature and synthesizes – I can't pronounce that big word – analyses the knowledge on a regular basis, and writes regular reports typically on about a five-year cycle. I'm pleased to note I've been a member of UNSCAAR for about 10 years and UNSCAAR consultant on radon. I've just finished doing a major report on radon health effects and, of interest to many people in the room, I was also selected by UNSCAAR to do an update of the 1996 report. The 1996 report deals specifically with the risk to non-human biota from ionizing radiation exposure. So next year there will be a new UNSCAAR report published that updates the risk factors for non-human biota.

UNSCAAR 2000, UNSCAAR 2007, UNSCAAR 2001. Anyway. Some of the major conclusions, very quickly. The most recent report, which will be published this year before the end of the year, have the same risk estimates as UNSCAAR 2000. Unchanged.

It's generally accepted that the risk increases with increasing radiation dose. For radiation protection the assumption is that the risk increases in a linear fashion with dose for solid cancers and in technical term, a linear quadratic fashion for leukemias. As a caveat though, that there's no statistically significant effect below about 100 milliSieverts. And if you recall the slide earlier, modern mine, even the maximum worker is only exposed to perhaps two milliSieverts a year. So a worker could work for 50 years, which is a rather long lifetime in a hard task, and still be under the hundred milliSieverts.

At very high doses, in the order of 4,000 radiation units, you do see some lung cancer effects in two populations: Japanese atomic bomb survivors and in women who've been irradiated for breast cancer. And what it is, you have fibrosis and cardiovascular effects.

I won't go into details, but in 2001 UNSCAAR did a detailed valuation of Everything there is to know about hereditary effects. To this point in time there is no human evidence, there is no human evidence that radiation results in hereditary effects in people. Traditionally we've used models of mice to estimate hereditary effects in people. The UNSCAAR 2000 took one step forward and we now have a mouse-man model where we have spontaneous incidents in man and an induced risk of cancer in mice exposed to radiation. These experiments were done at Oakridge and other places and in some cases involved a million mice. These were huge experiments.

The bottom line though is, regardless of reviews, it's very clear that the risk of radiation induced cancers is small when the doses are small. So obviously it's important to keep the radiation doses as small as you possibly can. And that's really the ALARA principle.

I'm switching horses once more. I have five minutes. I'll go through this very quickly. I'm going to briefly talk about studies of miners, in particular Canadian miner studies. It's something we could talk about for several hours on Wednesday or Thursday if there's an interest.

Traditionally studies of miners exposed to radon has provided the basis for estimating risk to miners and people living in homes with high radon levels. In the past, miners had very high exposures to radon. That's simply the situation. For example, in the Port Radium mine there was no mechanical ventilation until 1949, even though the first mining took place, started in about 1931. It was not the '20's, it was 1931.

In the 1940's in, say, the Port Radium was about 400. I'd lied earlier. This is actually a different radiation unit, but it's specific to radon. It's called a working level month. By the '50's there'd been a big decrease. By the '60's again. By the '70's very smaller. I don't have modern exposures on here because you couldn't see them. They're thinner than the horizontal line at the bottom. Basically, if you look at the exposures that miners at Port Radium had in the '30's and '40's, the modern exposures are 1,000 times smaller.

These are the major epidemiological studies of miners. I don't have time to go into detail, but if someone has questions later I'll be happy to answer. The two that are important here are Beaver Lodge and Port Radium. They're both part of something called the Eldorado Cohort.

This is something Dr. Lee will remember is one of the recommendations of the joint federal-provincial panel was for further studies on miners. And the panel recommended ongoing health studies to look at past, present, and future uranium miners. And there are two aspects to this. The update of the Eldorado Cohort and the feasibility study of modern miners. And I only have one slide on this, but I did this study, so I'd be happy to answer questions if people have them later on to your heart's content, actually. And I also did the dual symmetry for the Eldorado update.

Study of modern miners. If you look at the current exposures there'd be a total, if you continue at the current level in the workplace of 24,000 miners who would've been exposed from 1975 to 2030. The modern exposures of radon are low and we estimate

that out of this group about 140 miners would get lung cancer from natural causes.

We also predicted that at modern levels there might be one extra lung cancer. However, over 50 percent of modern miners still smoke and over 90 percent, over 90 percent, almost all of the risk of lung cancer in miners is in smoking miners. And the biggest way to reduce the risk from radon in miners is to reduce the smoking. As I say at the bottom here. In any event, we concluded it would not be detectible. It's not zero, but it's not detectible. And it would only accrue for practical purposes in smoking miners.

I'm almost done.

The original Eldorado study published in 1980 looked at workers who started to work for Eldorado at one of the facilities. The Port Radium facility, the Beaver Lodge facility, the Port Hope facility. In the interval between 1930 and 1980 and the mortality from 1950 to 1980 was tracked. And here again these studies are complex and I'd be happy to go into details if someone has questions.

The updated study which was completed in 2006 included 17,660 men and women who had worked for Eldorado at Port Radium, at Beaver Lodge, or at the Port Hope facility. Information was collected on the work histories and radiation exposures, both radon and gamma radiation, for all of the men individually. So we had individual follow up on each of these 17,760 workers.

We had 50 years of mortality data, which is 20 more years since the original study, and almost 30 years of cancer incidence study. Cancer incidence registries only recently started in Canada.

The Eldorado study is a major study and I remind people it was in part funded and it was certainly driven by researchers at the Canadian Nuclear Safety Commission. The CNSC does have an interest in the health of the people who they regulate.

Major conclusion was overall workers were as healthy as the general Canadian male population. There's no difference. There's no excess. Overall. Workers have significantly higher rates of lung cancer and external causes. This is a mistake. Please cross this off. It's one of these things that happens with electronics and me working on slides in one place and someone else doing translation someplace else.

The story with heart disease is the following. There is an elevated but not significant increase in hypertension. There is a statistically significant deficit in ischemic heart disease and so basically there's no significant heart disease increase. There is a suggestion of an elevation of hypertension and noone has a reason for that.

What's also interesting and consistent with every other epidemiology study of miners, there's an increase in homicides, suicides, motor vehicle accidents, alcoholism. And these are exactly the same results we saw in Elliot Lake. And unfortunately alcohol is involved I much of this. In Elliot Lake, for those who've been there, it's about a 45-minute drive from Elliot Lake to Blind River. Great number of fatal car accidents driving down the highway to go to bars, unfortunately, in Blind River.

Major risk factors for lung cancer. As Dr. Edwards pointed out, by far the overwhelming cause of lung cancer is tobacco smoke, which also causes cardiovascular disease and other issues. Number two cause of lung cancer is indeed exposure to radon in the work

place and at home. And World Health Organization is actually undertaking a global burden of disease exercise. I'm a member of that WHO committee actually. And hopefully by the end of this year, early in the spring we'll have a report on the global burden of disease from exposure to radon at homes.

Diet and physical activity are also important. And if you look at me you can see that I don't get enough physical activity, unfortunately. And I just want to emphasize, the best way to reduce lung cancer is to reduce smoking.

So I think that's my last slide and I want to thank you very much. Hopefully I'm not too much over the hour and if I am I want to thank you for your patience.

---Applause

FACILITATOR: Thanks very much, Doug. I'm sure in some of the question sessions you'll be called upon. Our last speaker, Luis Manzo, director of lands for Kivalliq Inuit Association.

Kivalliq Inuit Association – Policies and Procedures for Activities on Inuit Owned Lands

MR. MANZO: Good afternoon, Mr. Chairman, and members of the board, public. My name is Luis Manzo. My background is, I'm an engineer graduated in South America and did my post-graduate degree in Canada as a geologist. Actually taking a PhD in water management as a student of the University of (inaudible) British Columbia.

I will speak on behalf of the land departments of the Kivalliq Inuit Association. We are part of the regulatory process of Nunavut under the land claims agreement. I will speak in regard to the access of Inuit on lands which has been given to Inuit with certain rights and certain provisions that we manage under the claim.

The Nunavut Land Claims Agreement was giving Inuit of Kivalliq 3,132 square miles of surface land and 1,004 square miles of sub-surface rights. The Kivalliq lands department administers the Kivalliq region, which is on the map here as parcels in pink and red. They are divided by, it's a line, it's a right line here to divide the regions between Coral Harbour and (inaudible) Island.

What is KIA? Under the land claims agreement, KIA is a designated Inuit organization, DIO, representing interests of all Inuit in the Kivalliq region, lobbier than a session for harmonized, incorporate, and implement the land claims agreement, administers and monitors certain provisions of the Nunavut Final Agreement.

Functions of KIA. Developing and implementing policies and procedures to manage those lands given to the Inuit. We are formed by a board of directors elected democratically by each community of the seven communities of the Kivalliq region. And is also elected president, vice-president, and secretary-treasurer. Which approves and recommends those procedures and policies as to impact committee in which a sitting all the vice-presidents of the regional Inuit associations and the (inaudible) president of NTI approving policies and procedures through consultation with our clerics.

We also in charge of looking for funding to different programs (inaudible) federal government or GN, the Nunavut Government, to actually do clean up for the past mining exploration in the areas. Also, before we issue an application or project to be licenced

we also see the effects in wildlife and any other effects on the resources before we issue a licence permit.

We also in charge of the inspection of each licence that we grant and IOL, which is (inaudible). Under Article 20, which is water, is one of the more important areas of KIA lands department. We part of the interpretation of Article 20 working group. And we also part of the development of the guidelines working group under Article 20 to negotiate and trigger compensation and determining, also, water uses, values of that water, and determining water standards for Inuit on our own lands. And also coordinate monitoring programs with the federal and territorial government.

How do we do these assessments? We have a system in place to assess a community effect those projects over time that the new program that we actually running since 2003 facilitates the process of licences through collecting the base line data for different resources as wildlife, water, especially risk, geology. Now we can give scenarios to those lists. Considering in those scenarios the environmental, cultural, and societal impacts of those projects after the session.

Access to Inuit-owned lands. Any operational product of commercial or public nature requires a permit. That's also including mining or quarry. Exception of a carving a stone, which belongs to Inuit.

We also have residential and commercial leases. We also have land use licence, which is classified in three types. We have also subject extension, specifically for researchers and government, and any type of government access that is required to use the land certificate that has essentially been granted to the federal government and territorial government.

We also have a quarry licence. Also classified based on the quantities and start in 50 cubic metres up to 2,500 cubic metres a year. (Inaudible) licence it can be extended for one more year, but is limited to 2,500 cubic metres. After 2,500 cubic metres we have concessions, which is used when mining is operating and that concession can be granted up to a 10-year period.

Residential and recreational leases has been granted to construct any permanent structure for the purposes of recreational or fishing uses.

And then we have a commercial lease system. In that part it's negotiable based in each project a specific criteria. And those leases can be up to four years.

We also in charge of the land use inspections and in that inspection we have to make sure that all terms and conditions are being met. In those licences which we extend one per year we do one inspection for a year. And in that case the proponent bury the cost. If the condition is not being met we'll inform the proponent and also the government in charge of the specific infraction of the licence.

Exclusive possession also is a specific permit for a specific lands granted in (inaudible) Lake. Those rights removes some access to the public, especially cruise ships and tourism because the historic value of those lands. So when a cruise ship or tourist wants to have access to those specific parcels need to get a licence through KIA lands department.

How to apply for access? The application has to be submitted to KIA. KIA reviews the exact location of this licence, deliver a different mapping to put in a specific file. Like wildlife, water, watershed theology. And make sure those lands belong to Inuit. After those maps are developed then we send it to the specific clerk of the affected community. The clerk members are selected in the community by the director that specific community who represents the community and the board of directors okay. And they will review and recommend the demand departments, I don't know, they have an issue with that particular licence. After that we notify the proponent that your application has been received or has been denied. Based on the environmental (inaudible), ecological and enforcement terms and conditions.

All the KIA lands, all is a staff. Before execute any licence they require the certificate of PNPC to be granted, the certificate of the Nunavut Impact Review Board to be granted, and the licence water for Nunavut Water Board before we deliver the licence to the proponent.

And this is all for my presentation. Thank you all of you. You have any questions I will be here the three days and I will be happy to answer any questions.

(**Note: Transcriber had difficulty understanding Mr. Manzo's Colombian accent, therefore some sentences in his presentation as typed here may not make sense or be true to what he actually said.*)

---Applause

FACILITATOR: Thanks very much, Luis. As he said, he'll be around for the next few days if there are specific questions. I think we're done for the day. I'd just like to express my thanks and the thanks of the Commission for everyone today. It was a lot of information in a short period of time with not many breaks. And thank you to the speakers and the participants, and especially to the translators. A lot of new terminology thrown at you.

---Applause

We'll get back at 8:30 tomorrow morning. We'd like you to sign back in again. We're keeping an active log of participation. So even if you've registered already please sign in again. Those speakers for tomorrow who haven't submitted their presentation, we'd like to get it as early as possible so we can load that up.

Before you leave, if you could make sure you're not walking out with one of your headsets. They're very valuable and we need them for the next little while. Also, encourage you to maybe pick up the garbage around you and take it out with you.

Again, tomorrow night we've got the public session and we do have some groups signed up already. If you sign up you'll be given preference on speaking. We encourage groups or individuals to sign up.

Again, the Igloo Inn is open 5:00 to 7:00 for supper and, as most of you know, there's many artists in this town and several galleries and places to buy art. The Jessie Oonark centre is, unfortunately it's usually closed when we close business here for lunch or after, but we can make special arrangement to have it open at lunch tomorrow. If people would like, just let me know in the morning. And if you could remind me in the morning,

that'll be good.

There are a number of people, Graham Simpson, Donald Lee, Peter Mayotte, Alison Jamison, Gordon Edwards, and David Tooktoojook (sp), if you could see Sharon here about some administrative matters. And I think that's everything. Thanks very much for your participation today and we'll see you in the morning. Any questions, please feel free to come and see me.

INTRODUCTION – Wednesday, June 6th, 2007

FACILITATOR: – please.

Opening Prayer: (No Translation) Amen. Amen. Thank you, Jesus.

FACILITATOR: Thank you very much. Just a couple announcements before we get started with our first speaker, Donald Lee. James Eetoolook sends his regrets. He ran into some weather problems and is unable to make it to the workshop here.

The GN and KIA charters are coming in pending weather issues, but we expect them soon.

Just wanted to remind people of sign up sheets on the side for tonight's public meeting. The intent is for community members from Baker Lake and other hamlets within the region to have an opportunity to voice their concerns or ask questions, and we're asking that the speakers and resource people be available during that meeting to answer any questions that may be directed their way. So please sign up and speakers will be given priority in sequence of how they've signed up. There also will be an opportunity for questions from the floor.

Presenters, if we haven't got your presentation please see Heidi and we'll load it up on the screen.

Just a reminder, please speak slowly and avoid the use of jargon and acronyms.

And I think finally I'd just like to say thank you to Kathy and Hugh for the catering, keeping the coffee and water and goodies going.

Now I'd like to introduce Dr. Lee for his presentation.

ENVIRONMENTAL ISSUES AND MITIGATION MEASURES

Issues and Mitigation Measures Considered in Environmental Assessment of Uranium Mines in Northern Saskatchewan

PROFESSOR LEE: Well, good morning, everyone. I'd like to begin by thanking the organizers of the meeting for inviting me to be present here. It's certainly a privilege for me to be here. I want to congratulate you on your organization. Down south it would take us half a year to organize a meeting like this and here you seem to be able to put it together in a couple of weeks. So you're to be congratulated for your organizational ability.

I'm going to talk about the environmental review panel that assessed the environmental, socioeconomic, and the health impacts of the new mines in Saskatchewan. We've heard a lot about those mines already yesterday. Back in about 1990 when they were going to begin the mining the Government of Canada and the Government of Saskatchewan got together and appointed a panel to review all the new developments that were going to occur in northern Saskatchewan.

It was a rather large review. It took us seven years, but it involved a review of nine different ore bodies, a couple of mills, two tailings management facilities, and the related transportation connections.

During the review we were also very careful and very involved with public consultation. We had numerous meetings like this. We spent days and days talking with the people of the region to try and ascertain what they would like. And in fact, I think it was the, it is the most extensive and thorough review of uranium mining that has taken place in Canada and perhaps in the entire world.

You've seen this before, but in case you're wondering, the mines that we were looking at were up in here. They were proposed and our job was to try and assess what the impacts of those mines would be. We went through it project by project by project and after each review we submitted a report. But when we were all finished we said to ourselves, well, we should submit a summary report, one that summarized everything or the main things that we had learned during the process. We started out saying, well, let's write down the 10 most important things about uranium mining that we had discovered. And as we began to do that we found that it was impossible for us; we had to go to 12. So we eventually wrote down the dozen most important observations that we had made during our review. And although my task, the task I was given was to mainly talk about environmental things, I'm going to mention all 12 of those observations and spend a little extra time on the environmental ones.

First of all, this isn't the environmental one, but we began with education. Education is really important for at least two reasons. One, education helps people to assess the relative risks and benefits of any project. Every project has some risks associated with it. Every project has some benefits associated with it. And information and knowledge helps us to make a decision to weigh the benefits and to weigh the risks. And I think that's what we're doing this week, isn't it? We're educating each other. I know I've never been in Baker Lake before and I've already in one day learned a lot. It's a wonderful experience to be here. So we're educating this week, sharing with each other.

The second thing that education does is it prepared people to accept employment in the project when and if it comes. Some of these jobs require specialized training. And I'm not going to say much about that because Peter Mayotte is going to bring us a presentation from Northlands College. Northlands College is the institution in Saskatchewan that's been charged with that responsibility. So I'll leave that to Peter.

Secondly, we talked about employment and business opportunities. I'm sure that all the companies have good intentions of hiring local people, but we recommend that those good intentions be converted into legal obligations when you, if and when you decide to mine you have an opportunity in the surface lease to say 50 percent or 80 percent, or whatever number you think, of the employees of the job should go to local people. We think that's important. Later on we're going to have some presentations by Pierre and Morris and I'm sure they'll have some more to say about that. And as far as business opportunities, I thought I saw on the revised schedule that Rene Rediron was going to talk to you about some business opportunities. He's an entrepreneur that works in that area. I'll leave it to them.

Community vitality. You know, I'm a chemist. I was trained as a chemist. And it's easy to do monitoring of physical things. If the company wanted me to I could go downstream and say to three or four decimal places how many radionuclides there are there. But it's just as important as monitoring the environment to monitor the community vitality. The companies are responsible for monitoring and mitigating any environmental damage

that occurs. They should be just as active in monitoring the community vitality. What happens to the community, what happens to the people is as important as what happens to the environment, isn't it? And so that's really important. We're going to have some presentations here later today by Moses and Philip that I think will touch on this. I'm not going to say any more about it.

Research. I'm just going to mention this briefly because it was an issue that we thought was important, but this is mainly for government. We think there should be some scientific research, that there should be a scientific research institute related to uranium mining, particularly in Saskatchewan where there is so much uranium. This here is the Petroleum Technology Research Centre in the Regina Research Park adjacent to the University of Regina run by the Saskatchewan Research Council. And it's here where they discovered methods for using liquid carbon dioxide, pumping it down into the oil formations. When they do that they get much more oil out of the ground and they also sequestrate, put away over a million tonnes of carbon dioxide every year. So see, they preserve the environment and make more money at the same time. That's what research can do for you and there should be far more research into environmentally good ways of mining uranium. Maybe you should do it up here. Saskatchewan is dragging their heels. Somebody should do that.

Well here we want to get onto environmental business. Mills. When we started our review the proposal would be that there would be a mill for each mine. That each mine would have a mill beside it and the ore out of that mine would be milled. And we recommended that instead of having a mill at every mine site that there should be centralized milling. That there should be a few large mills and that the ore should be trucked from the pits to the mills. And in response to that AREVA built this mill at McLean Lake. It is a state of the art mill, still. I remember yesterday Brian Reilly was talking about this and I could tell that the company was proud of this mill and justifiably so. It is an excellent mill. It has in it a lot of environmental safeguards and so forth. And so in Saskatchewan now there are only three mills. This one at McLean Lake, there's one at Rabbit Lake, one at Key Lake. And all the ore is trucked up to those mills. And that leaves a smaller environmental footprint than having several mills around the countryside.

And it isn't so much the mills that we're concerned about. It's the tailings that those mills produce. You know, the ore comes in, it's maybe one percent uranium. That means that 99 percent of it is discarded, 99 percent of it is left behind. The ore comes in, it's ground up really fine, and then they use some chemicals to float out the uranium, and the rest of it is left behind as tailings. And the tailings contain Everything else, plus the chemicals that were used to float out the uranium. So these tailings are vicious things. They're very toxic. And here Gordon Edward was talking about the radionuclides that are present in that material yesterday. And you can see that this is a log scale here. So this is one year, this is a thousand years, this is a million years. So they're going to be radioactive, these tailings. For a long, long time. What's even worse is the tailings usually contain a lot of arsenic and nickel, which are toxic metals that don't have any half life. They're going to be there forever. There's no decrease in their toxic abilities or their toxic properties. So these tailings have to be dealt with very carefully.

There are a couple ways that this can be done. For example, here, one can take an

area where there's a slope and build a dam. Okay? And then allow the tailings to build up behind the dam. Now, as they build up behind the dam the tailings will eventually solidify. There's a process that geologists call mineralization and surprisingly the atoms can move around in there till they're just in the most stable confirmation in the most stable compounds, and they can solidify then. It takes a long, long time for them to do it, but there's evidence from uranium tailings facilities in Europe, where they've been a long time, they will become minerals again. And of course, if that happens, then all you have here is a mineral deposit somewhat radioactive, but somewhat like other mineral deposits found on the surface of the earth. The problem is that this barrier, this dam, if you like, has to last long enough for that to happen. And there's a good possibility that it will not. So many things can happen to this. The artist, I found this diagram on the Internet, the artist has put in here erosion, floods, earthquakes, heavy rain. A lot of things could break that dam down. And one thing, the important, the most important thing for this area, I think that whoever drew these up left out was glaciers.

Sorry, I walked in front of the thing. Sorry.

You know, this area, from time to time glaciers have moved over this area. In Central Park in New York City there are Canadian rocks. Did you know that? If you go to New York you can do down to Central Park and you can find some boulders there that originally came from Canada. Well, think what would happen to this sort of a barrier if a glacier came sliding over it. And just as we're in a period of global warming now, but we'll probably get a bit of an ice age after and so this way we thought was a poor way of containing tailings. And we recommended instead that the tailings should be placed in a mined out pit.

I'm going to have to have a drink of coffee here.

UNIDENTIFIED MALE SPEAKER: Worse than global warming.

PROFESSOR LEE: No, it's okay. We recommended that the tailings be put in a mined out pit. Here's the mined out pit and here's the tailings. And the way this would work, of course, is that there's a sump under here. Right here, this sand is a sump. And the water that drained out of the tailings would then run down from a pump here, be pumped to the surface, a dn on the surface it could go to a water treatment plant and be cleaned up, and then released to the environment. And then when the milling is over and there's no more tailings to produce several metres of sand or rock could be placed on top of that and, above here, the least expensive thing would be to let it fill up with water. And then the tailings would be isolated from the environment by all this water. Or alternatively, this could be filled up with clean rock and sand and till on top of it and the lichen would grow on it. And the tailings would then be placed under round back in an area close to where they had come from originally. And we think that they would be safely there.

Then the other thing that we had to worry about is waste rock. This is rock that's above the ore itself. And here we see some piles of waste rock. If that waste rock has sulfide minerals in it the sulfides can oxidize and you eventually get sulfuric acid. I put in a little gratuitous chemistry here just to titillate you a little bit this morning. You can see what happens here though. It's not very difficult chemistry. If you have a sulfur atom it can be oxidized to sulfur dioxide. Sulfur dioxide gets oxidized to sulfur trioxide. And when that

reacts with water you get sulfuric acid. That's a quite simple process. And of course then when it rained sulfuric acid, dilute sulfuric acid would drain down from here and kill the vegetation and the fish and anything else that it came in contact with. You just can't allow that to happen.

Now, you can't separate these tailings from water, but you can separate them from oxygen in a number of ways. And that has to be done. One way would be just to cover them up with other rocks and till, but over time that might erode and be exposed again. So the second best way would be to place them in a deep lake. If they were well under water then not much oxygen would get down to them and they would probably be safe there. The best way, we think, though is to return them to a pit where, more or less where they came from. If you have a mined out pit the waste rock containing sulfides should really, any waste rock containing sulfide should be returned to a pit.

Now we come to another problem with the pits. I've used this same diagrams. Here's tailings or it could be a waste rock. Either one. We've noted that water that comes down this way goes off to this pump and it is pumped to the surface and sent to the water treatment plant. But what about seepage that comes out here? That's what these arrows are supposed to represent. What if the pit leaks rather than the water all going down? It begins to course out into these rocks and eventually into aquifers. Well, to deal with that – oh, yeah. Here we have an actual pit. This is the JEB pit at McLean Lake. And there's that mill we saw a moment ago right back there. And you can see, here's where they're filling in the tailings. We've seen this picture before, but what hasn't been mentioned yet is right here. If you look right here, that's Fox Lake. It's hard to see on this slide, but it's easy to see when you're there. That Fox Lake is really close to that pit. And I know when we were doing this I spent quite a few sleepless nights worrying about that. What if this pit leaks over here and all these toxic materials get into Fox Lake and then down that watershed and it becomes contaminated? Well, in order to prevent that, what's being done here is that all around here water wells have been dug. And periodically the water is pumped to the surface and analysed, and they can tell then whether seepage is occurring out through the pit in any direction. And so the pit is continuously monitored by these wells. The monitoring wells could also be used to mitigate the situation. If seepage did occur one could then use these wells to pump this area dry. You could just pump it every day, if you like, to make sure that nothing escaped very far away from the pit. And in that way these wells that encircle the tailings management facility both are used for monitoring and they could be used for mitigating. I think that so far, while it's only been in operation 10 years, I don't think there's been any seepage yet. But if there is there's a way to handle it.

Cumulative effects. Here we are back to Saskatchewan again. But you can see all these mines in this area. One could have a situation where each mine was operating perfectly according to regulations, but that the combined effect of all the mines was overloading the environment. So one has to think not only about an individual project, but you have to think about all of the projects in the area. But they might not all be uranium mines. There might be a gold mine or diamond mine or whatever else is in the area. You have to take into consideration all of the things that might accumulate that might produce environmental impacts.

Local participation. In 1995 we realized that there wasn't sufficient participation by the

local people in monitoring the environment around these mines. So we recommended to the government that they form something called environmental quality committees. And two years later in '97 they passed legislation bringing these environmental monitoring committees into existence. They are committees composed of people from the local region that become knowledgeable about uranium mining and visit the mines and make recommendations. And you know, there's nobody as interested in the environment as the people that live right there. Now, Betty Hutchinson is going to, who's now the director of that program, is on the program here for later today. So I'll let her explain how the environmental monitoring committees work, but they have been one of the big successes in northern Saskatchewan and I take a little pride in the fact that we recommended them originally.

Transportation. Transportation is important. I would say that as far as environmental concerns are there are three main things that you have to be concerned about if you're going to get into uranium mining. First of all, the tailings. The tailings from the mill have to be secured and for a long, long time. Permanently secured. That's the most important thing. To deal with those, make sure the tailings aren't escaping into the environment. Secondly, want to be concerned about the waste rock. That there isn't acid generation from the waste rock. And the third thing you want to be concerned about, I think, is transportation. A road causes quite a bit of environmental damage and change. Sometimes animals won't cross the road. And you not only have to be concerned about the road, but also about the kind of vehicles that are going to go on that road. And about the containers that the material is in. You know, you always have to take the worst case scenario and say, well, let's assume that this vehicle is going to tip over in the snow some day just as it's crossing this bridge. What would happen? Well, you've got to have –

—Interjection

It's happened to you? I see some smiles over here. Anyway, you have to take the worst case possible and make provisions for that possibility. So never, never, never truck ore around in an open truck or anything like that. Have it in containers.

How'm I doing for time, Nick? Oh, that's lots. I'm almost done.

Health and safety. Well, We had a lot of, we had a lot of, a long discussion of health and safety measures yesterday and I won't go into that any further, but I'll remind you of the presentations that were made by Graham Simpson and Dr. Edwards and ... Doug. Doug. After. So you remember those and I won't have more to say about them.

Finally, acknowledge the other people that worked on this panel with me. They were the brains. I just kind of refereed the meetings. But the participants, Jamie Archibald is a professor of mining engineering from Queens University in Kingston, Ontario. He knew all about how mines should be made and so forth. John Vantusig (sp) was the vice-chief of the Prince Albert Grand Council and had a good understanding of the culture of the region in which the mines were being produced. Dick Neil from the University of Saskatchewan is a biologist, had a great understanding of plants and animals and the environment in general. And Annalee Yassie (sp). Annalee is a medical doctor. She is an expert in community health and at the time we were doing our study she was at the University of Manitoba. She has now moved to the University of British Columbia.

So I finished on time. Questions?

—Interjection

If you have questions save them for Alison.

FACILITATOR: Any questions? Dr. Lee has certainly got a lot of experience in this area. And he'll be here this evening. Okay, we've got one question here.

UNIDENTIFIED MALE SPEAKER: I just wondered if all of your recommendations were adopted or if some, if you're disappointed in some that were not adopted? What those would be.

PROFESSOR LEE: We were happy to note that most of our recommendations were accepted. I would say about 90 percent of them. Some of them were modified somewhat, but most of them were accepted. You know, uranium is kind of a touchy thing for politicians and they kept saying, well, we'll do what this expert panel says, and by and large they didn't deviate from that. Although there's some changes. But we were by and large happy with the response we got from governments.

FACILITATOR: Thank you. Any more? One.

UNIDENTIFIED MALE SPEAKER: You said that at the end of your work you said you were going to have 10 recommendations, but you ended up with 12. And what were they?

PROFESSOR LEE: Well, they're, they're on the hand out. Do you have my hand out? Okay. This one here. And those, they're scattered through there. There's 20 slides, but there's 12 recommendations that are there.

FACILITATOR: Okay. Thank you very much.

---Applause

Dr. Lee will be available tonight and tomorrow. So I'm sure he's got a lot of good experience to share. I'd like to welcome Alison Jamison from the Pembina Institute to give us a presentation about nuclear power.

Nuclear Power in Canada – An Examination of Risks, Impacts and Sustainability

MS. JAMISON: Thank you. Can everyone hear me at the back? Yeah? I'm very grateful for the opportunity to speak today and the chance to present some of the research that we at the Pembina Institute have done over the past few years looking at the entire life cycle of nuclear power in Canada. As you consider uranium mining in Nunavut, I think it's important to think about where uranium mining fits in the entire life cycle of nuclear power.

Just a quick bit about the Pembina Institute for those of you who might not be familiar with us. We're an environmental non-profit group, about 50 to 55 staff across Canada, and our focus is largely on sustainable energy and minimizing impacts of conventional energy. And then also reducing the impacts of climate change. We have a northern program of which our goal is essentially working to ensure that northern energy systems satisfy the long-term needs of northerners and Canadians while preserving the environmental, social, economic and cultural integrity of the North as energy

developments proceed.

Just a quick bit about some of our northern program work. Encouraging sustainable energy strategies with governments and communities and supporting northerners just with concerns that they might have about energy developments. One example of that is our Pembina northern oil and gas workshops held in the North, in the Northwest Territories, and also in Calgary, bringing northerners down to spend a week learning all about the ins and outs of oil and gas development. And the impacts that might result from that. Also answering concerns and helping to raise awareness around the cumulative impacts, the social and environmental of energy developments, and then providing technical support to Mackenzie Gas Project interveners.

So what I'm going to talk about today is essentially some of our findings from doing this report, "A Life Cycle Assessment of Nuclear Power in Canada." And I'm going to, in this report we looked over the entire life cycle: uranium mining and milling, fuel refining and conversion, and fabrication of the fuel pellets, and power plant construction, operation, decommissioning, as well as the waste fuel management. It's certainly important with nuclear to be looking both upstream of power generation, which is something that I think is often forgotten when we're talking about nuclear as a clean energy. And also different points in time as that's, with nuclear power, which is quite unique to nuclear, that's where most of the impacts actually occur.

So just a bit about why we got involved with this project. Essentially, in some of our energy policy work in Ontario we were looking for an analysis, an overall analysis over the entire life cycle of nuclear power. We found that there really wasn't anything out there that looked at it as a whole. There was many the purported to present the full nuclear life cycle and often completely ignored a lot of the upstream impacts and a lot of the downstream impacts, as well, such as the fuel management.

I think, this is just another, I think you've seen a lot of these maps over the last day and a half. Essentially this is the nuclear power life cycle in Canada, mines in northern Saskatchewan, most of the facilities about 3,000 kilometres away in Ontario, with some power plants also in Quebec and New Brunswick. I won't talk much more about that.

Just a bit on the project scope. Essentially, these are the main areas: environmental and health impacts and risks that we explored, atmospheric releases, we've got radionuclides, hazardous and criteria, air pollutants, greenhouse gases, water quality, a lot of similar impacts, a whole range of pollutants as well. And waste generation. We really focussed on the radioactive and hazardous and high-volume wastes as opposed to everything, just because there's a lot of waste generated. Some on landscape and ecosystem impacts and community health, as well.

The thing that's unique about nuclear power is there's a number of long-term, as I mentioned already, impacts that result that need to be considered in any assessment of nuclear power. And I'm going to focus on these briefly at the end for costs and construction, performance reliability issues, security and weapons proliferation – which I'm hearing a bit about – and then the impacts on future generations.

So while we looked at what, in all the areas that I'm going to be presenting we looked at all the different, all the four or five main life cycle activities. But I'm going to focus largely today on the uranium mining and milling impacts and the bit about waste generation as

well.

So starting with waste generation from power plant operation. I talk about this because I know there has been some discussions from nuclear fuel waste disposal in the Arctic. And in Canada each year 85,000 waste fuel bundles are generated. That has resulted in 1.7 million of these fuel bundles in storage as of 2003. So the number's already bigger today. This number, in requiring isolation for up to one million years, that comes directly from the Nuclear Waste Management Organization. And here's a picture of a waste fuel bundle. It's about the size of a fire log. It's about 25 kilograms and contains a bunch of these nuclear, the fuel pellets that were passed around yesterday. I guess the interesting thing about this waste fuel bundle as opposed to a fire log is if you stood next to this for any appreciable amount of time it would kill you. And we certainly wouldn't be passing these pellets around after they come out of the reactors.

So although we've had nuclear power generating stations in Canada since the 1960's, we still have no long-term management strategy in place for managing this waste. In 2005 the Nuclear Waste Management Organization came out with what they're calling the adaptive phase management strategy. It's essentially what we've been talking about: eventual deep geological storage. But we still don't actually know how we're going to do that. With a $24 billion price tag and they're talking about 300 years to implement. I think it's interesting to think about where Canada was in 1707. It gives a sense of the time frame here that we're talking about. And then where were we a million years ago? We were barely down from the trees.

So continuing on the topic of waste generation, we've been hearing a lot as well on impacts from waste rock and the hazards of uranium mining and milling. I think the reason we've been hearing so much about it is there's a lot of concern. It's a really long-term, frightening problem.

Waste generation from waste rock, which is essentially the overburden rock that must be removed to access the ore, is about up to 18 million tonnes per year in Canada is generated and needs to be stored over the long term. Again, this contains radionuclides, heavy metals, may be acid generating. Uranium mining and mill tailings, approximately 575,000 tonnes per year generated in Canada currently. Don Lee did a great job talking about a lot of the hazards from that, but again, acidic, potentially acid generating, radionuclides, heavy metals, other contaminants.

And then where are we at currently, just from the uranium mining that's happened already? Currently an estimated 213 million tonnes of tailings in storage in Canada. This is actually, just to put this in perspective, the Toronto Skydome, this would fill up approximately 100 of them. That's the amount that we already need to manage forever.

The Auditor General of Canada has said that uranium mining and mill tailings require long-term institutional care as they are perpetual environmental hazards. We're talking about forever. We won't ever be able to walk away from the mining mill tailings, but who will be there to manage them for the next 80,000 or 100,000 years? I think, from my perspective this clearly violates one of the basic principles of sustainability, which is not transferring risks and costs to future generations to support consumption today. That's essentially what we're talking about here.

We've seen this picture a few times as well. Elliot Lake in Ontario. This is the real

algome (sic) Quirk (sp) tailings where effluent discharge here has resulted in significant radiological contamination and acidification of the 300 square kilometre Quirk Lake.

This must look familiar by now. Don Lee did a great job of explaining this as well, but I just wanted to flash it up here again quickly as it's through the dust and the radon from the mill tailings, the potential for dam failures and seepage into ground water. These are the sort of impact pathways from the uranium mill tailings, which is what eventually impacts the land or water and wildlife.

So the next one before we looked at in the study, and it's certainly all in the report that's available for download on our website. We looked at the impacts to land, air, water, wildlife and human health over the entire life cycle. But for this point I'm just going to focus on uranium mining and milling to keep it most relevant.

Environment Canada and Health Canada concluded that uranium mining mill discharges are classified as toxic substances for the purposes of the *Canadian Environmental Protection Act*. And just as an example, Cluff Lake, one that's being touted by proponents as the first and only modern mine decommissioning project in Canada. It is part of the environmental assessment of the decommissioning project. Ground water monitoring revealed highly elevated levels of heavy metals and radionuclides. Just as an example, arsenic concentrations were 66 times higher than background levels and nickel levels were 1,250 times higher.

In addition, review of numerous water quality studies have revealed that while modern regulations require mines to stay within water quality guidelines a number of studies show total loadings over the mine life may have significant cumulative impacts. For example, the Rabbit Lake operation, even though mill effluent releases to the Horseshoe Creek drainage system consistently stayed within regulated limits, a substantial accumulation of uranium and other metals, such as arsenic and nickel molybdenum has occurred in the sediment of Horseshoe Creek and Horseshoe pond.

As far as atmospheric releases, I've got radon gas releases particularly from underground mines, since they need to be vented through an occupational hazard. So they become very large point sources for radon gas. When you talk about wind blowing dust from mines and tailings management facilities to contain a range of heavy metals and nucleides. A 2000 study at the Key Lake mine, uranium series radionuclides were measured at three sites near the mine. As a result of wind blown fugitive tailings dust significantly higher concentrations of uranium and other uranium series radionuclides were found in soils, twigs, vegetation, birds, and small animals near the mine.

In addition, uranium mining and milling are very significant emitters of acid and smog-producing gasses. I mean, a mill is essentially an acid bath making sulfuric acid. At the Rabbit Lake acid plant, for example, it released 43,000 tonnes of sulfur dioxide in 2004. This is a major contributor to acid rain and those levels of emissions in 2004 made it one of the largest point source emitters in Canada.

And of course, greenhouse gas emissions are also emitted across the entire life cycle. I'll talk a bit more about this later.

Issue with land impacts, as proponents of nuclear power like to say, the land impacts of nuclear is smaller than wind. Yet they're only talking about the actual nuclear power

generating facilities. And even if they are talking about the mines, one of the key things is with mining and milling of uranium the impacts occur way beyond the boundaries of the mine itself. They're occurring way, way off site. So in the northern context it's crucial to understand the extent of the impacts beyond the mine fence line as they will be very significant.

And of course, one of the pathways for this is into the food chain when we're talking about country food in the North. We heard from Pat Thomas' presentation yesterday about the caribou-lichen-wolf pathway and some studies looking at caribou-lichen-human pathway have shown that bio-accumulation from lichens eating, or caribou eating the lichen and then humans eating the caribou bio-accumulation of radionuclides leading to elevated cancer risks occur in humans.

Fish down stream of the Key Lake mine in waters receiving discharges from the mine were found to have heavy metal concentrations – that's nickel, cobalt, cadmium, as examples – up to 43 times higher than normal levels. These are all things we need to be very cautious of.

I just wanted to highlight some of the challenges in the North. And we certainly have a much more fragile ecosystem up here with the cold weather. Regeneration will take a much longer time. Don also mentioned transportation risks and I think certainly much more complicated transporting uranium products from the North. We should be asking questions like how will the uranium be transported and how will, where will milling occur up here? What are the technical issues surrounding that? How do tailings management facilities work in permafrost?

And then off course, you've heard that the regional impacts of climate change will be much more severe in the Arctic. If we're already seeing warming happening, happening faster. With melting permafrost what will happen to the tailings management facilities?

Just a summary of the uranium mine impacts. Essentially, again just a reminder, we're talking about perpetual care. And the return to the natural state will be impossible. There's physical landscape changes from the mine as well as the waste rock and tailings management areas that will be here forever, and long lived radionuclides and heavy metal contaminants in the surrounding environment.

So I want to kind of switch gears here for a minute and talk about the sustainability challenges I introduced briefly at the beginning. And we came across these as we were embarking to study the entire life cycle and quantify a lot of the environmental and social impacts and found that, you know, unique to nuclear power, these long term challenges that we really can't ignore. First and maybe less severe is the capital cost and construction time lines. Already in Ontario we're seeing government's need to assume the risk of cost overruns because the economics really aren't that great. It's how we've ended up with a $20 billion debt from nuclear power in Ontario. An example of this is the 2005 Bruce Power deal. Bruce Power signed a $4.5 billion deal with the Ontario government for the refurbishment of two of their reactors. And one of their partners, Cominco Corp, who's involved in a lot of uranium mining projects already, bowed out of the deal citing insufficient returns.

An assessment of 75 reactors in the US saw final construction costs three times higher than those that were projected. And we haven't yet decommissioned any plants in

Ontario, but decommissioning costs for those are expected to, from what we see around the world, be largely, at least as often as expensive as initial construction.

And then these cost problems are of course compounded by facility reliability issues. In Ontario, average fleet operating capacity has been in the 50 percent range in the last few years rather than the expected 85 to 90 percent.

And finally, fuel supply and cost of uranium. Of course, the price of uranium is why we're seeing exploration companies operating all over the North. But one of the big issues is, you know, with the lower grade of ore there's going to be greatly increased environmental impacts resulting from that. And certainly compared to Saskatchewan the ore that we're refining up here so far is of a much lower quality.

Security risks. The CNSC, the Canadian Nuclear Safety Commission has told ACL to design reactors to withstand someone flying into them. I don't think terrorists lie awake at night dreaming of flying into wind turbines and even conventional generating facilities, whether they're natural gas or even coal. I don't think, if they were to be part of a terrorist attack they wouldn't potentially contaminate half of the country. And we're really talking about an entirely different universe here.

On the subject of weapons proliferation, we've heard enough about this yesterday, probably, but this is the reason why we're worried about North Korea, India, Iran, Pakistan. And the head of the International Atomic Energy Association, Dr. Mohamed ElBaradei, has said that once a country has nuclear power technology we really can't stop it from turning into a nuclear weapons state from a technical perspective.

And of course, the issue of transferring risk to future generations. This to me is a real bottom line. We're talking about sustainable future, passing on perpetual care of nuclear waste in mine and mill tailings is definitely violating any concept of sustainability.

And on the subject of future legacies, climate change is the final issue I want to touch on today. As mentioned before, nuclear power is not greenhouse gas emission free. Greenhouse gases arise from a whole range of activities over the entire life cycle. Probably the largest source identified so far is the construction of and refurbishment of the nuclear power facilities, but also emissions result from the mining and milling, tailings management, refining and converting of fabrication, eventual waste management. While they may not be as high as fossil fuels, they're definitely not zero. And this winter a very comprehensive study was released from Sydney University in Australia. It explored the life cycle of greenhouse gas emissions from nuclear power in a lot of detail. It highlights the fact that decommissioning activities of plants and mines have been largely ignored from a greenhouse gas perspective and the energy and greenhouse gas hit at the back end will likely be as big as or bigger than initial construction.

Another key finding from this study was what I mentioned before about the energy invested goes up significantly as ore quality goes down. We certainly have a limited supply of hydrate ore, so greenhouse gas emissions from nuclear power will be increasing in the future.

The third reason why nuclear power is not the answer to climate change, we'd just be trading one set of problems with another. Nuclear power is the only energy source that

produces waste which will require perpetual care and management for hundreds of thousands of years. We must address climate change without creating additional serious, long-term environmental problems. And the reality is we have better options as well. We don't need to go here. Energy efficiency and energy conservation initiatives, fuel switching, low impact renewables, the real story in the growth of electricity in the last few years is, globally in 2005, for example, installed capacity of low impact renewable energy increased by 22 gigawatts. This is compared to only 3.3 gigawatts of nuclear power. This isn't percentage; this is actual installed capacity.

Nuclear is a huge diversion of waste and, waste of resources taking us down the wrong path. Just imagine what could be achieved in energy conservation and low impact renewable energies if the money put towards nuclear reactors today was instead put towards clean energy.

And again, and certainly really pertinent to the Arctic, is the regional impacts of climate change as well. Which I've talked about.

So, you know, nuclear, from our perspective, is not the climate answer and here's the perspective from the international governmental, Intergovernmental Panel on Climate Change. This is just from their most recent working group three report on the mitigation of climate change. And they state: Given the costs relative to other supply options, nuclear power, which accounted for 16 percent of the electricity supply in 2005, can have an 18 percent share of the total electricity supply in 2030 at carbon prices up to $50 US a tonne. But safety, weapons proliferation, and waste remain as constraints. So two points here. One, nuclear power economics are so poor that even at $50 per tonne of carbon, the current prices are somewhere around the $15 to $20 range. Nuclear's only projected to grow two percent over the next 23 years. And in that market, I guess in that scenario, what are their chances that the uranium prices that we're seeing today will remain high as well? And then it's interesting that the Intergovernmental Panel on Climate Change is also cautious around the issues of security, weapons proliferation, and waste. And this is straight from the United Nations expert body on climate change science. So.

Thank you for the chance to speak today and share some of our findings with you. And as I mentioned before, our full report is available for download on our website. Just go under the publications page and our report's there, as well as some facts sheets that we've released recently. We have one on nuclear power and mining, which I have some handouts here today of, as well as an eight-page summary of the report and a fact sheet on nuclear and climate change as well. Thank you.

---Applause

FACILITATOR: Thanks very much. We've got time for one or two questions before our next presentation, if there's anyone. A question for Alison? From the chair here.

UNIDENTIFIED MALE SPEAKER: That, I wish I knew what you were talking about, that 13 million tonnes, 13 million tonnes that, 13 million tonnes of waste rock that you were talking about. That report only consists of starting from when to?

MS. JAMISON: You're talking about that 213 million tonnes?

UNIDENTIFIED MALE SPEAKER: Yeah. Starting from when?

MS. JAMISON: Oh, since we started uranium mining in Canada. So that was in the 1960's, I believe.

UNIDENTIFIED MALE SPEAKER: But will you know what it's going to be like within 20 or 30 years?

MS. JAMISON: Well, I mean, we're currently adding almost, it's just a bit over half a million tonnes per year, so I mean, that's going to keep accumulating. Certainly, I mean, mining and milling is certainly mor efficient than it used to be and that's part of it. So we're, you know, I would guess now we're at maybe 215 million tonnes. That number was from 2003. But that will continue to add up as we can't decommission them currently. Any other questions?

UNIDENTIFIED MALE SPEAKER: (Begin Translation) I have a question in regards to, for example, will the little song birds, will they be affected? The birds in general that migrate up here, will they be affected by, will they be impacted? (End Translation)

MS. JAMISON: Sorry, I think I missed the very beginning of your question, but what I caught was, you're wondering if the birds that migrate up here will be impacted?

UNIDENTIFIED MALE SPEAKER: (Begin Translation) Will they, you mentioned before in regards to birds that they can be affected. Will they be contaminated from uranium, such as the song birds or any other birds that come up North or any other animals that come up here? Will they be affected? (End Translation)

MS. JAMISON: Well, there's been a number of studies that do show that animals, birds within, that live or spend time around the mines do become contaminated with radionuclides. So it would depend on how many birds are within the vicinity of the mine, but there is certainly the potential for that.

FACILITATOR: Thanks very much, Alison. We're, we've got a little technical problem up here. We're going to have to stop for a couple minutes and change some microphones out. Okay. One more question here. Quickly, please.

UNIDENTIFIED FEMALE SPEAKER: (Begin Translation) Is the chairperson or facilitator who I'm addressing this to? I can't hear her. I've asked this question in the past. We received the information. For example, we were given those energy saving light bulbs understanding that we have to conserve energy and now they're talking about uranium. Fifty years ago in Saskatchewan uranium mining, do they use those energy saving light bulbs with those three or four prongs in them? (End Translation) Yesterday and this morning we were shown about those little pellets. I don't know the correct name for those little things.

MS. JAMISON: Fuel pellets.

UNIDENTIFIED FEMALE SPEAKER: With Saskatchewan being, doing the uranium mines over 50 years there must be quite a bit of a stockpile, enough to use nuclear power from the stockpile. Why do we need to open more uranium mines to counteract global warming today? Thank you.

MS. JAMISON: Well, as I mentioned in my presentation, I actually don't think we should be using nuclear power to counteract global warming. I think you make a great

point. You know, we need to conserve energy and using those energy efficient light bulbs are certainly an example of a way to do that. As for, I believe you were asking about stockpiles of uranium and I think there certainly was a lot of uranium that was used from the decommissioning of nuclear warheads in Russia, so that's one of the contributing factors to keeping uranium prices low over the last few years. But if the information we're finding is correct, projections for uranium show that there is a bit of a market for it in the future. But ... I think that's all I have to say about that.

FACILITATOR: Thanks. Thanks very much. We've just got to switch a microphone here at the front. No, we, by switching the microphone we have to shut off translation. So we'll just take two minutes here. If I could have your patience.

—Break

FACILITATOR: Please take your seats. Okay. Welcome back, people. I'd like to introduce Soha Kneen from Inuit Tapiriit Kanatami speaking on long-term management of nuclear fuel waste in Canada.

Long–Term Management of Nuclear Fuel Waste in Canada

MS. KNEEN: Good morning, everybody. Again, my name is Soha Kneen. I'm a senior researcher and operations manager in the Environment and Health Department at the Inuit Tapiriit Kanatami. I've been with ITK for about five years now and spent about a year and a half conducting the dialogues, the national Inuit dialogues on nuclear fuel waste management in Canada.

So I'm going to sort of switch back and forth between my presentation and some feedback and snippets in terms of information that we accumulated throughout the dialogues that will sort of come to me as I go through the document. So if anyone actually does have any questions or if I'm missing something that you'd like to know, raise your hands and I'll try to answer them as best as I can. And for those that want more detailed explanations or more information, I've got the documents in the back. So we've got the presentation handout back there and I also brought the final report that resulted from these dialogues, and I brought the bulletin that addressed nuclear waste issues that came out in 2005. So all three documents are in the back on the table. And a business card if you need to reach me.

So I'm going to start off with the – slower? Yes, sorry. I am going to slow down now. So I'm going to start off with the background. All right. On November 15th in 2002 the *Nuclear Fuel Waste Act* was brought into force by the federal government. This act was passed. Sorry. This act was passed to confirm that the Government of Canada was meeting its responsibilities regarding the long-term management of nuclear fuel waste and set in motion the processes necessary for the successful implementation of the act.

The *Nuclear Fuel Waste Act* was developed as a result of extensive consultations with the public and stakeholders by the Government of Canada in 1996 and 1998. In 1998 the Government of Canada's response to the Seaborne Panel, as the response to the Seaborne Panel the government further included that it would undertake a participation process for Canada's aboriginal people, among those the Inuit.

In discussion with the Nuclear Waste Management Organization and Natural Resources Canada representatives, ITK staff members had underlined the fundamental importance

of Inuit becoming involved in the formation and development of the management options that are required by the *Nuclear Fuel Waste Act*. And it was also expressed that it is essential that a comprehensive public dialogue process with Inuit is conducted in order to develop recommendations for the long-term management approach options which were included in the NWNO submission to the Minister of Natural Resources Canada on November 15th of 2005.

We initially were going to have about three years to conduct this process, but because of delays it took us a year and a half. So what started off as being a consultation became an informal dialogue process. And what I'm going here today is to relay the results of that process. The feedback I received from people who attended the four regional workshops as well as the task force meeting, so basically I guess that's the regional feedback. I am relating what people told me they wanted out of this process.

So to continue the background, in the past the Inuit have been opposed to the long-term management of nuclear waste in the Canadian Arctic. One such example of such opposition is the 1997 NTI Resolution Number B97-08-24: Storage of Nuclear Material in Greenland. In this resolution NTI voices its strong concerns about the matter of the storage or transport of nuclear materials in the Arctic, as well as of NTI's intent to notify representatives of government and organizations involved in any such planning of their strong opposition to such plans. And please correct me if I miss anything in terms of these types of resolutions.

A second example of such opposition can be found in the June 1977 ICC Resolution Number 77-11 concerning peaceful and safe uses of the Arctic circumpolar zone where ICC's board of directors resolved that the Arctic shall be used for peaceful and environmentally safe purposes only and that there shall be prohibited any measure of a military nature, such as the establishment of military bases and fortifications, the carrying out of military manoeuvres, and the testing of any type of weapons and/or the disposition of any type of chemical, biological, or nuclear waste and/or other wastes. Further, present wastes be removed from the Arctic. And there are two more points. That a moratorium be called on the emplacement of nuclear weapons, and (c) that all steps be taken to promote the objectives in the above mentioned. So that's the whole resolution.

The need had remained, however, to dialogue with and educate Inuit regarding the possible effects that will accompany the long-term management of nuclear wastes and receive the feedback from the Inuit in the four land claims regions.

So throughout the 2004-2005 period ITK, with the help of the National Task Force members of the Inuit land claims organizations, was actively engaged in the organization and coordination and execution of the national Inuit specific dialogues on the long-term management of nuclear fuel waste in Canada. Which I had to come up with an acronym. It wasn't working. We had to stick to the whole title.

So these dialogues took place in Iqaluit on November 9th and 10th in – Slow down. Sorry. I apologize. These dialogues took place in Iqaluit on November 9th and 10th in 2004, Inuvik November 17th and 18th, Kuujjuaq January 27th and 28th of 2005, Makkovik in Nunatsiavut on February 9th and 10th, 2005. These dialogues or this dialogue represented one of the most thorough dialogue processes that ITK has ever conducted

within the four land claims regions.

In addition to these activities, ITK was engaged in the organizing and conducting of the National Task Force meeting, which took place on November 7th and 8th in 2005, where we brought all the results together. I had initiated the putting together of the final report and we went over Everything point by point to ensure that Everything that had been submitted by members of the various work groups, the four working groups, was actually contained within the report. So again, the purpose of this meeting was to review at the technical level all submissions to the report.

The reasons and objectives of the dialogue. The design and execution of a culturally specific dialogue program by ITK on the long-term management of nuclear fuel waste in Canada. To provide information, means, and opportunity for Inuit to conduct a dialogue, to share the opinions and views of Inuit with the government of Canada. And to provide a series of reports, and in particular a final report, to Natural Resources Canada which was then to be transmitted to the Minister of Natural Resources Canada. Further, it was to provide the Minister with the views and opinions of Inuit in advance of the recommendation to the Governor in Council on the approach for the long-term management of nuclear waste in Canada. To assist in developing capacity for Inuit at an organizational level, as well as allowing you to acquire knowledge on matters related to nuclear waste management and to develop communications between Inuit and the Government of Canada on the issue of nuclear waste management.

These dialogues were to be explicit and strictly in relation to the long-term management of nuclear fuel waste in Canada and the structures and processes laid out in the *Nuclear Fuel Waste Act*. So we did not address mining issues, although it did come up in the Nunavut dialogue, a brief discussion, we focussed strictly on what to do with the waste once it was produced.

So what is nuclear fuel waste? We've talked about it a little bit already in the past day or so. Nuclear waste is used uranium fuel from nuclear reactors which is used to produce energy. And we've had the little pellets, it's what Alison was using in her presentation as well. They are inserted into the fuel bundle that you are seeing on the screen right there. This nuclear fuel waste is contained within these irradiated fuel bundles and these bundles weigh approximately 20 kilograms each. They're about this big. Because of its radioactivity and toxic properties, nuclear waste is dangerous to human and environmental health.

So where is ... I have to eliminate a word in there. Where is nuclear fuel waste currently stored? For the most part nuclear fuel waste is currently stored on site at nuclear generating facilities either in wet or dry storage. And I will have some examples of wet or dry storage pictures in the presentation. Some waste is also stored at the Chalk River and Whiteshell laboratories. On the map circles represent research reactors, triangles, and triangles represent the commercial facilities. Okay. So it's a little difficult to tell on the slide that's on screen right now, but in the presentation that I've had printed out for you it's much larger, so you'll be able to tell where the circles and where the triangles are in terms of the location of Canada's nuclear reactors.

The next slide is an example of dry storage. And I believe this picture was actually taken in Pickering by members of the Nuclear Waste Management Organization. And so you'll

see how the containers are steel reinforced and they are stored in rows in a large warehouse on site at the reactor.

Wet storage looks like this. We were able to look, there's a window behind the gentleman that's actually standing on the platform. We were standing at that window to be able to look in and see what it actually looks like.

Nuclear fuel waste is initially very hot and highly radioactive and it is stored in water pools such as the one you can see. In reactor buildings for cooling and shielding and the water pool capacity is 15 to 20 years of reactor production. This waste has to stay submerged for seven to 10 years and then it could be moved.

So here are examples of locations of radioactive waste sites in Canada. So we've got Whiteshell Laboratories, Gentilly, Point Lepreau. And then above you've got Douglas Point, Darlington, and Chalk River Laboratories.

Who produces nuclear fuel waste in Canada? This waste is produced by nuclear generating facilities that have, as you know, been operating since the '70's. Ontario power generation is responsible for approximately 90 percent of the waste, New Brunswick power for four percent, Hydro-Quebec for four percent, and Atomic Energy of Canada Ltd. for two percent. Other waste owners, such as universities, produce much smaller quantities of nuclear waste.

How much waste is there in Canada? And the figures that I was provided with by the Nuclear Waste Management Organization, or NWMO, were that as of 2002 approximately 1.7 million used nuclear fuel bundles, which are about 40,000 metric tonnes, enough to fill three hockey rinks, have been produced. And these numbers are growing.

How long is this waste dangerous? The radioactivity of this substance is measured in half lives or the amount of time for the material to lose half of its radioactivity. Waste byproducts such as uranium have half lives as long as 710,000 years.

So now we arrive at the outline of proposed methods of disposal and storage. And please remember, this is what was proposed, but that's not what was recommended by the NWMO and I will conclude with that. The 2002 *Nuclear Waste Act* directs the NWMO to examine three methods of long-term management of nuclear waste: deep geological disposal on the Canadian Shield, the storage at nuclear reactor sites, and then the centralized storage which can be either above or below ground. Deep geological disposal on the Canadian Shield can come in two forms: one that's sealed off and one that's accessible.

So the results from the dialogues included the following. So as the storage or disposal of nuclear waste has potential safety, environmental and health implications, participation in this dialogue process represented an important opportunity for Inuit to provide feedback to the Minister of NRCan, thereby recognizing the importance of the Inuit voice in the ongoing national dialogue process. It was very important.

Although the national Inuit specific dialogues could not be considered a formal consultation due to the limitations and time, for example, with Inuit consensus was reached on 11 points that have been outlined in the final report that has been submitted to and approved by the ITK board of directors and then went to the NWMO and then to

the Minister of NRCan as part of their recommendations.

So I have summarized the key elements of these points into two points that you can see on screen right now and they are: the complete opposition to the storage, disposal or transport of nuclear waste in Inuit-owned lands – so Nunavut, Inuvialuit Settlement Region, Nunavik and Nunatsiavut – Inuit co-managed lands and lands governed by Inuit land claims agreements. And actually, also there was a point within the results and recommendations by the members of the four working groups that stated that there was an opposition to these types of wastes also being on lands adjacent to Inuit-owned lands.

The second point in terms of the key elements again is now that currently existing nuclear fuel waste should remain on site at existing nuclear reactors.

Decision-making structures that may be initiated with regards to the implementation of a final management approach must also include that mechanisms for direct community involvement are implemented and that potentially affected communities have the right to refuse to host a nuclear waste disposal or storage site.

Number four is that the nuclear industry should in no way interpret the findings contained within the feedback provided by Inuit as encouragement or acceptance of an increase in the production of nuclear energy and the subsequent production of nuclear waste.

And finally, the Government of Canada ... Oh. Let me just check something. Yes. The Government of Canada must take the necessary steps to conduct research and develop alternative energy sources in Canada.

So the complete list of the 11 points that were actually put together by the four working groups can be seen in the final report that's actually on the table in the back.

Further results included that the participants of this dialogue process stated that the production of nuclear energy and the subsequent problem of the long-term management of nuclear waste represents and volatile issue that will continue to be present in 30 years, 60 years, or 300 years. It's a very long-term process that we're about to engage in. It was also stated that the production of nuclear energy was initiated without a thought towards a means of disposing of the inevitable and highly toxic byproduct of nuclear fuel waste. As such, it represents a very serious waste problem which goes against Inuit ethics with regards to environmental protection and the inseparability of environmental and human health.

So on my final slide, as such it was seen as important to emphasize that environmental protection in the Canadian Arctic is of utmost concern to Inuit and that as aboriginal Canadians Inuit consider the implications of additional locations for the storage or disposal of nuclear fuel waste a very serious problem to Canadians. This process further resulted in the ITK board of directors' resolution B05-06-09 on the subject of the long-term management of nuclear waste and that's included in both the final report and the bulletin that you can see at the back. This resolution opposes the storage and disposal and transport of nuclear waste in Inuit-owned lands, as I had already said, in areas adjacent to Inuit-owned lands, Inuit co-managed lands, lands governed by land claims agreements, as well as a recommendation to restrict the transport of such

materials across international boundaries, and that the current waste should be stored at existing sites until a way is found to safely dispose of these wastes.

So that leaves us at the current situation where, sorry, basically the reports by Inuit have been submitted to the NWMO, as have all the other natural aboriginal organizations. All the information has now gone to them. The recommendations by the NWMO have been submitted to the Minister of NRCan on November 15th, 2005, and these recommendations included basically a combination of the three approaches. So the proposal has been to bring the waste to a centralized location, to have a period of shallow, below-the-surface disposal, and then for it to go into a shaft to do the deep geological disposal. What needs to be highlighted is that this doesn't mean that the waste gets shipped off from the reactors directly after they come out into a centralized storage location which will have the three components. It still has to stay on site. It still has to go into a wet storage and then it can go into dry storage. Wet storage takes 10 to seven, seven to 10 years. Sorry about that. There was one component in the recommendations that was of interest, of particular interest and this was that what I would call sort of a host community clause was included. It has to be a willing host community according to the recommendations. If people don't want it they should have the right to reject it. However, we don't really know what is going to happen because the federal government has not actually made a decision on the proposed recommendations yet, so it's up in the air at this point in time. But this is the feedback that was provided to me as a result of the four dialogues in Iqaluit, in Kuujjuaq, in Makkovik, and in Inuvik. And that is what I'm reporting to you.

That's the end of my presentation. Does anyone have any questions?

FACILITATOR: We do have a moment for a few questions. Just, I know Soha mentioned this, but just so everyone's clear, she's speaking of nuclear fuel waste produced at the reactor site rather than waste produced in the mining process. But we have time for one or two questions. Graham.

MR. SIMPSON: Was this position of the Inuit people presented to the Indigenous World Uranium Summit? Are you aware of that in December –

MS. KNEEN: No. It was not presented there.

MR. SIMPSON: There were many different nations made a world statement about uranium and particularly nuclear waste disposal. You didn't. Okay. Thank you.

UNIDENTIFIED MALE SPEAKER: Thank you. You kept talking about, you talked about NTI motion ICC resolution and at the last slide show you talked about the ITK's board of directors' motion long-term management of nuclear fuel waste in Canada. Would it be possible for you to provide us with these, the wording of the motion and the resolutions?

MS. KNEEN: Absolutely. I would have to, is it possible to E-mail it to you or fax it? I can, I left my business card in the back because I didn't bring these as individual documents, but I can certainly provide you with that. Definitely, I will. Yes.

FACILITATOR: Just ask if you, when you're speaking up if you could identify yourself first, please. It's, we're recording the proceedings here.

MR. TOOKTOOLOOK: (Begin Translation) I'm David Tooktoolook from Repulse Bay. There, it may not, this is not really a question, but from we Inuit have been here and how we are being and those of us who are elected and who represent our people. As you are from ITK and who are representing the Inuit who are working together, working for us Inuit and the wildlife it seems Everything that you have there is not and a lot of us are not, cannot speak or read Inuktitut. And they, if you're going to be talking about there should, there should be translation so that the Inuit or people that we represent can understand and sometimes even those who really need to understand don't quite and all the waste that we don't want our land, we don't want any waste being left behind on our land for any length of time. As I'm an Inuk originally and, but thank you very much. Every word that we're hearing. So because we can't remember every word that is being said that we hear. So there should be translations of everything including on the screen is what he was saying. (End Translation)

MS. KNEEN: Thank you very much for that feedback. I apologize for not having my presentation translated. That's pretty much the only document I didn't manage to get translated, so I'm very sorry about that. The documentation from the dialogues is available and it is all translated. So if anyone wants the translated information that I put together for the dialogues I am very happy to forward them in English and/or Inuktitut. So please just let me know and I'll make sure that you get it. And thank you for your feedback.

FACILITATOR: Time for one more question if there is.

UNIDENTIFIED MALE SPEAKER: (Begin Translation) I'm going to speak English because I can speak English. (End Translation) You mentioned about ITK making a policy on Inuit-owned lands. I'm just wondering if individual land claims organizations such as NTI have adopted those policies concerning storage and disposal of nuclear fuel waste on Inuit-owned lands. Are these existing policies now?

MS. KNEEN: I wouldn't call it a policy. Basically what happened is this was the feedback we received from representatives of the land claims regions, which went into the document, which was compiled and then reviewed by everybody probably about 10 times, and then it went to ITK's board of directors, which is comprised of the presidents of the individual land claims organizations. You know this. But no, I wouldn't say that it's a policy. It became a recommendation from the board of directors and I don't believe that every land claims organization has formally made policies like this, but all of them agreed as the board of directors of ITK that this is what they wanted to put forward.

FACILITATOR: Okay. Thanks very much, Soha. As she mentioned, copies of her presentation are available on the back table. Thanks again. Our next presentation is on behalf of the Beverly and Qamanirjuaq Caribou Management Board. Unfortunately they can't be here today. They have a board meeting in Thompson, so I'm going to deliver their presentation. And I think Sharon's going to take great pleasure in cutting me off.

Potential Cumulative Impacts of Uranium Exploration and Development on the Beverly Caribou Herd

Okay, the focus of this presentation will be on the Beverly Caribou Range because uranium interests and exploration are primarily on the Beverly range. However, since some of the potential for uranium development is also on the Qamanirjuaq range many

of the concerns identified and issues raised also apply equally.

The focus will also be on the effects on caribou and caribou habitat, however, the long term health of the land and its wildlife is a key issue for the board. Terms of other key issues, it's a focus on cumulative effects relating to mineral development and uranium development.

The Beverly and Qamanirjuaq Caribou Management Board is a co-management board that's been working for 25 years to ensure the long-term conservation of the Beverly and Qamanirjuaq herd. On this map the yellow area is the overlapping ranges of the two herds that the caribou management board deals with. Today, as I've said, we're focussing on the Beverly herd, which ranges over the western portion of the yellow area. From the southern winter range in Saskatchewan to the spring and fall migrating/rutting areas primarily in the Northwest Territories, and to the calving and post-calving areas in summer range primarily in Nunavut. The dark green area on the left is the traditional calving area for the Beverly herd and the one to the right is the Qamanirjuaq.

The board is a co-management board that includes aboriginal hunters, biologists, wildlife managers from Nunavut, the NWT, Saskatchewan, Manitoba, and the federal government who work cooperatively to protect caribou and their ranges. Although the board's official responsibility is for caribou and caribou habitat, board members are concerned about the overall health of the land and all factors that impact the environment that caribou and people live in. Caribou and impacts on caribou are not considered alone, but as a part of the system they live in; a system which includes people.

The board is not against mining. They recognize that people living on the caribou ranges need jobs through economic development. They also know that people across, people from the communities across the ranges don't want jobs that harm the caribou. The board believes that we should work together to protect caribou herds and their ranges. Several years ago the board produced a paper outlining action that is needed to protect the caribou herds and has been working to try and get this work done. Some copies of this paper are available for meeting participants and were on the back table. They may be gone. There also is a website that the paper can be downloaded from.

The ecological, economic, and social value of Barren Ground Caribou is important to the board. Caribou are an indicator of overall ecosystem health. Healthy caribou tell us that the land is healthy. Caribou herds are extremely valuable resource for northern communities and governments. The board has estimated that the economical value of the Beverly and Qamanirjuaq herds harvested each year is at least $17 million. This is a preliminary estimate; a final estimate is expected to be higher. In addition, the social and cultural value of the caribou herds is immense.

What do biologists know about caribou use of the Thelon watershed? There have been surveys from the air and the ground beginning in 1955. I understand there may be surveys going on this week. Data has been collected from collared caribou since 1993. Caribou cows are fitted with neck collars that contain small transmitters that send signals to satellites that circle the earth. The signals are used to track the location of the collared caribou. They do not, the collar information does not tell us the locations of the

bull caribou or the full extent of the range use. The board also relies on traditional knowledge from residents on the ranges and information provided by hunters and elders over time.

Information from the past surveys tells us that Beverly Caribou use the areas shown on this map in pink during spring migration to the calving ground based on government surveys between mid-March and late May during the years of survey. The primary movement corridor for spring migration of the Beverly Caribou is the darker pink in the centre.

Information from the tracking of collared caribou tells us the Thelon watershed is used most frequently by Beverly and Ahiak cows, which is a separate herd that calves farther north, and to a lesser extent by cows from other herds, including the Qamanirjuaq.

This slide shows the locations of collared caribou during the period of 1995 to 2006. It shows the location of 19 Ahiak and Beverly Caribou from the herds in a nine-year period. So far we have very little information of this type about Beverly Caribou because in fact only a few of the Beverly Caribou have been collared. The Government of the Northwest Territories hopes to place 15 more collars on Beverly Caribou in 2007.

Regional views show spring migration from cows from Ahiak and Beverly herds north from winter range through the Thelon watershed to calving grounds. Spring migration, if you can see, is the dark pink in May, calving in June, the green, and post-calving in July, the darker green.

Based on what we know, we can say that the Thelon watershed is most valuable to caribou in providing the following key habitats: spring migration route between the winter range and calving areas, traditional calving area, post-calving area, and undisturbed water crossings. The board does not agree with permitting exploration activities on calving and post-calving areas. The board has recommended establishing long-term legislation for calving and post-calving areas.

Land use activity across the Beverly and Qamanirjuaq Caribou ranges shows much of the land use activity across the ranges as of May 2007. There are in the back corner several maps depicting land use over the ranges. On the winter range in Saskatchewan it’s an area of long-term exploration and development for uranium and other minerals. Again, the map on the side shows mineral permits and claims where many uranium mines and refineries have operated since the ‘40's and over 80, or almost 80 companies are now searching for uranium. Many old exploration sites and mines had serious problems and are still considered hazardous sites in the area around Uranium City, and there are still many radioactive sites that have not yet been cleaned up.

The winter range in Saskatchewan and NWT is an area of high-quality caribou habitat that has been reduced due to recent large-scale fires.

The area in yellow is called the Thelon Formation by geologists and extends from the upper Thelon watershed south of the sanctuary, which is a key spring migration area for the Ahiak and Beverly herds. It extends through the sanctuary, north and east across the Beverly calving grounds. The Thelon Formation has experienced a recent exploration rush with rising uranium prices. It has a similar potential to Saskatchewan’s Athabasca Basin and many more companies are expected to be exploring the area in

the near future.

This is the same map that is displayed on the wall at the back. Uranium exploration has occurred for several years and is still increasing on the Beverly calving ground northeast of the sanctuary. The number of mineral rights on the calving ground increased by 150 percent between February and September 2006, including 163 new mineral claims issued to a single company. There is also active exploration by several uranium companies on Beverly post-calving areas. Some exploration is in the advance stages and has been under way for several years.

The board is concerned about the amount of mineral exploration under way and proposed across the range of the Beverly Caribou herd. Much of this is also relevant to the Ahiak herd.

What do we mean by cumulative impacts? Many definitions of cumulative impacts, each which contains the following key items. Combined environmental impacts from a series of similar or related activities that accumulate over time and space. The effects add up.

Why are we concerned about cumulative impacts on caribou? Three main reasons. Barren Ground Caribou are wide ranging, which exposes them to a variety of land use activities on their range. All impacts collectively impact the health of caribou and their ability to cope with the stress and disturbance caused both by nature and humans. Although the stress and disturbance from each land use activity may seem to be minor, the combined effect of many impacts can be serious.

Potential impacts of proposed uranium exploration and development. Disturbance can cause stress or affect the use of key habitats, such as water crossings. Disturbance to caribou can result in obvious behavioural changes, such as running away from aircraft or vehicles. Disturbance can also cause stress to caribou when behavioural changes are less obvious or when they are not apparent to an observer, such as when feeding stops but the animal's head remains lowered.

Habitat loss. Direct loss of habitat resulting from project activities can affect water crossings, feeding areas. Also the potential for indirect habitat loss through avoidance of areas because of project activities. As an example, noise from an exploration site.

Another potential impact is contamination of food.

How seriously will individual caribou be affected? Impacts to caribou cows can occur as follows. Added stress to the cows resulting from both direct and indirect impacts. This could decrease survival of this year's calves and could also decrease the ability of cows to become pregnant and bear calves in the following year.

The need for caribou to feed continuously. Frequent interruption of feeding during spring migration through to late summer can have a significant negative effect on the condition of individual animals. Caribou need to feed continuously through the summer to ensure that they are in good condition during the fall migration and rutting period, and have reserves for the winter.

Why are we worried that impacts to individual animals will harm the herds? Well, there's declining population numbers on caribou herds in the NWT. All five herds that use range in the NWT to the west of the Thelon have declined over the past decade. Population

size and trend for Ahiak and Beverly herds are not known as the last population surveys were conducted in 1996 and '94 respectively. It's likely that these herds have also decreased in size.

The importance of calf survival for healthy herds. Research on the Bathurst Caribou herd shows that the herd is declining because survival of adult cows and calves has been low for several years. Models show that recovery of the Bathurst herd will happen only if both survival of adult cows and calves increase.

Specific concerns about uranium exploration. Effects from exposure to radioactive uranium in addition to potential effects of other types of mineral exploration through disturbance or habitat loss.

The lichen-caribou-human food chain interactions. As you know, lichen are an important food source for caribou and they can accumulate radioactive substances over several decades. Dust and soil containing radioactive substances can be consumed by caribou through lichens or at mineral licks. Radioactive substances can be absorbed into the bodies of caribou and build up in organs such as kidneys and livers.

The board and the members and other people from the caribou range communities have voiced many concerns about uranium exploration and development. Despite these concerns, no conclusive studies have been conducted concerning the effects of uranium exploration and development, including the effects of exploration and mining activities and the resulting environmental contamination. The cumulative effects on caribou of uranium development in Saskatchewan, in combination with exploration of potential development in NWT and Nunavut is of great concern to the board.

The four main reasons why uranium and other mineral exploration and development is of great concern. The first two reasons have been described earlier in this presentation as certain areas and landscape features are very important to caribou, such as migration routes, water crossings, and calving grounds. Caribou are vulnerable to disturbance at certain times, including spring migration, calving, and post-calving.

Applications for mineral development in the Thelon watershed are likely to increase, given the increasing price of uranium. Once mining companies are permitted to conduct exploration with substantial investment it appears unlikely that development of mines will not occur.

Similar situations with increasing cumulative effects have occurred elsewhere in the North. Two examples should be considered. Sixty years ago the Athabasca Basin of northern Saskatchewan was wild land and the homeland of the Athabasca Denesuline. The same area now contains many developments, including several operating uranium mines. The Athabascan communities live with the legacy of contaminated sites from past uranium mining and increasing exploration that may result in more development. Another example, 40 years ago the area including Alaska's north slope was the largest intact wild land in the United States. Since the development began in 1968 of the oil fields a large segment of this region has been transformed and now the oil fields are one of the largest industrial complexes.

Much remains unknown about caribou, which prevents us from being able to predict the cumulative effects. We don't even have the most basic information required to

determine if the herds are healthy, growing, and likely to continue to do so. Other things we don't know includes impact of exploration on individual caribou, population level impacts of disturbance to individuals, effective loss of winter habitat, the impacts of climate change, how demand for Beverly and Ahiak Caribou will increase because of the growing size of communities and greater access to winter range for hunters from the South, and the reduced availability of Bathurst Caribou, and how all these influences will interact.

The Beverly and Qamanirjuaq Caribou herds are a valuable and irreplaceable resource to more than 20 communities in the Northwest Territories, Nunavut, Manitoba and Saskatchewan. There is potential for significant impact to caribou through disturbance at particularly vulnerable times and in certain habitats.

Summary of the key caribou issues. Considerable uncertainty regarding the cumulative effects at both the individual and herd level because of a lack of knowledge. The impact on individuals through their annual migration across the range of human and natural factors such as exploration, habitat loss due to fires, climate change, potential over harvest, and other issues. The cumulative effects of the population level, especially if the herd is already decreasing.

If uranium and other mineral exploration continues to proceed across the caribou ranges the board is very concerned about the potential environmental and social costs, including the impact on Barren Ground Caribou, their range and habitat, and the ability of caribou range communities to maintain traditional lifestyles based on the caribou and other wildlife resources.

The potential for cumulative impacts on the Beverly herd must be assessed with consideration of all development activities across their range. Assessing developments one at a time in isolation of each other is not adequate.

Due to considerable uncertainty that exists, both about the caribou herds and how to assess the cumulative effects of development on caribou, a precautionary approach must be applied. This approach requires that new permits for additional exploration work in the Thelon watershed in both Nunavut and the NWT should not be issued until substantial work has been undertaken by territorial governments and other agencies to make informed decisions. Identification of data needs should be the first step for work in each area.

Research on the Beverly and Qamanirjuaq Caribou should be conducted by governments, Northwest Territories, Nunavut, Saskatchewan, Manitoba, and other appropriate partners. For example, population size and trend. There are surveys currently or planned to be underway at this time. Habitat requirements and movement patterns. Energetic and reproductive requirements. How natural and human disturbance affects caribou at an individual, herd, and system level. Modelling is needed to identify what is sustainable development in relation to ensuring the caribou continue over the long term.

Cumulative effects impact analysis for proposed developments on Barren Ground Caribou should be conducted on the entire range of the caribou herds rather than on individual project study areas only. It should be conducted by federal, territorial, and provincial agencies responsible for cumulative impact assessment in collaboration with

industry, communities, and other organizations, including the IPG's.

There is a preliminary list of considerations for developing a cumulative effects impact analysis for caribou submitted in the paper at the back, if there are any copies still remaining. We need to determine if active uranium exploration on the Beverly calving ground and uranium exploration and mining in the southern winter range have collectively affected the health and ability of the herd to withstand additional impacts from natural and human sources. Need to identify thresholds for further impacts that will not threaten the long-term sustainability of the herd and to develop a better understanding of significance of effects. Need regional land use planning that includes consideration of the value of caribou and caribou habitat. It should be initiated in each jurisdiction of the caribou range in conjunction with ongoing protected areas, planning, and regulatory frameworks.

Comprehensive regional plans should be developed that identify overall goals for the area, human activities that are compatible with the goals, the likely effects of human activities, the likelihood that activities will result in serious, long-term negative effects or irreversible harm in the scope, intensity, and consequences of human activity that are judged to be acceptable.

A range-wide system of conservation planning should be established to safeguard the Beverly and Qamanirjuaq Caribou herds over the long term across seasonal ranges by the Nunavut Planning Commission, INAC, territorial governments, and provincial governments. The system should determine how people from across the caribou ranges will work together. It will require consultation and cooperation between communities and governments, and the goal should include conserving important seasonal habitats for caribou to ensure their not damaged irreversibly as a result of human land use activity.

In conclusion, many of these recommendations follow from work the board has been doing for many years. The board is ready to assist other partners with the protection of the caribou herd and their habitats. Thank you very much on behalf of the board to present this information. Again, they apologize. They were not able to attend due to a board meeting. Thanks very much.

---Applause

Switching gears here, I'll introduce the next presenter. Monte Hummel of the World Wildlife Fund speaking on Inuit, Dene and World Wildlife Fund cooperative efforts to balance protection and development around the Thelon Wildlife Sanctuary. Please welcome Monte.

Inuit/Dene/World Wildlife Fund Cooperative Efforts to Balance Protection and Development Around the Thelon Wildlife Sanctuary

MR. HUMMEL: Thank you. I too would like to thank NPC for inviting me to present at this workshop. As promised, I will talk about cooperative efforts between Dene, Inuit and my organization, WWF – which does not stand for the World Wrestling Federation. Our efforts to balance protection and development around the Thelon Wildlife Sanctuary.

I have about 30 handouts at the back with maps that I'm going to be showing you, and these handouts have that picture on the cover. There are also maps along side.

Before I start I want to clarify three things. First, when WWF talks about protected areas or conservation areas we mean an area that is protected for hunting and for traditional use by the Inuit. Second, WWF's style is only to support conservation initiatives that are being championed and lead by the people who live in the North. Third, WWF is not against mining of any kind. In fact, we have worked cooperatively with leading mining companies right across Canada and around the world for over 25 years. And we would like to do this in Nunavut as well.

In 1995 Dene and Inuit elders, hunters, trappers, and community leaders from Lutselk'e in the Northwest Territories and Baker Lake in Nunavut met in the Thelon Wildlife Sanctuary and signed a declaration of principles for managing the sanctuary. They both wanted one plan for the entire sanctuary. Inuit were counting on Dene to protect the headwaters of the Thelon River in the NWT and Dene were counting on Inuit to protect the calving area of the Beverly herd in Nunavut. There's the calving area and there's the headwaters of the Thelon. So both cultures were counting on something, on the other to do something for them from a conservation standpoint.

The Beverly and Qamanirjuaq herds are worth over $17 million per year to Dene and Inuit hunters in meat value alone. This has been documented by the board. A Thelon sanctuary management plan was developed by both communities, especially with input from the Akilinik (sp) Planning Committee here in Baker Lake. That plan proposed a special management area to the southwest to protect the headwaters of the Thelon and another special management area to the northeast to protect the calving area of the Beverly herd.

In the year 2000, WWF funded a follow-up meeting between Inuit and Dene in Lutselk'e and they both wrote to their respective territorial governments requesting approval of the plan. This is also required by the Nunavut Land Claims Agreement.

Now, since 1990, a number of, in the '90's when all of this activity took place, a number of things have happened on both sides of the border. Number one, Nunavut and INAC have approved the Thelon Wildlife Sanctuary Management Plan for the Nunavut side. WWF assisted the Baker Lake Hunters and Trappers organization in accomplishing this. In the NWT there has been extensive industrial activity in the Slave Geological Province exploring for diamonds. All through here. This has resulted in two operating, soon to be three operating mines in the NWT and one in Nunavut.

Third, the Mackenzie Gas Project has been resurrected resulting in oil and gas leases and mineral exploration in the Mackenzie Valley. The oil and gas leases are indicated in red and the yellow indicates mineral leases, or mineral dispositions of one kind or another.

Fourth, there has been an explosion of interest in uranium in the Thelon Basin on the geological formation that INAC and the Beverly-Qamanirjuaq board just showed you. The formation goes right through the Thelon, extends southwest and northeast, exactly overtop of the special management areas proposed by Dene and Inuit as part of the Thelon Wildlife Sanctuary Management Plan.

Number five, the Dene's response to all of this activity on the NWT side has been to identify and try to reserve large areas that they want to protect in advance of development while they still can. So I want to show you this complex of areas coming all

the way down the Mackenzie Valley. The Inuvialuit, the Gwich'in, the Sahtu, the Deh Cho, and the Akaitcho Dene, including this very large protected area going from the East Arm of Great Slave Lake right out contiguous with the western boundary of the Thelon Wildlife Sanctuary. Please note, particularly the people from industry, that this effort to establish conservation areas is not an anti-development position. It's a condition of development position providing greater certainty for everyone. Like Inuit, most Dene also want jobs and economic development and benefits, but they also want to make sure that they protect areas for hunting so that after the diamonds, the oil, the gas, and the uranium are gone they still have something important to their culture left on the land, especially the caribou.

Number six, in 2004, as you've just heard, the Beverly and Qamanirjuaq Caribou Management Board published a very important position paper strongly recommending two things: first, that the Beverly and Qamanirjuaq calving and post-calving areas should be given permanent year-round legal protection with no industrial activity, including mineral exploration and development. And second, that the caribou protection measures are not, are not adequate to conserve caribou. That they should be reviewed, improved, and applied only outside the permanently protected calving and post-calving areas. Please remember this when people tell you that everything's okay because they obey the caribou protection measures. The board responsible for the management of these herds has said that the caribou protection measures are not good enough. I also want to note here that Nunavut is strongly represented on the Beverly and Qamanirjuaq Caribou Management Board. Through a government of Nunavut Biologist and Technical Advisor Mitch Campbell, who was introduced yesterday and who helped develop the board's position paper, through KIA represented by Joe Kaludjak, through the Baker Lake HTO represented by David Aksawnee and now Thomas Eetoolook, who is the HTO chair, and through INAC by Carl McLean out of Iqaluit. Also, AREVA and NTI sit as observers, as does WWF. Yet, over 400 mineral dispositions – that is prospecting permits, mineral claims, or leases – have been issued on the Beverly and Qamanirjuaq calving grounds alone, many of them for uranium, by some of the same governments or organizations represented on the board. This is an obvious contradiction and violation of the board's recommendation which has never been publicly explained.

Number seven, in January of last year the Baker Lake HTO wrote to INAC and the Government of Nunavut requesting a moratorium on any new mineral dispositions in the Beverly calving and post-calving areas, as just recommended by the Beverly and Qamanirjuaq board. They wanted this moratorium not forever, just a breathing space until they had time to decide which areas they want to protect and where they want to see development. Including what they wanted to do with what's left of that special management area. In November 2006, the Lutselk'e Dene First Nation Chief Addie Johnson wrote to the Nunavut Member of Parliament, INAC, GN, KIA, and the Baker Lake HTO citing the Beverly and Qamanirjuaq board's position paper and urging protection of the Beverly calving and post-calving areas outside the Thelon Wildlife Sanctuary.

Number nine, WWF funded through the Baker Lake HTO a three-year place names study with the Hundingerurmiat (sp), who are the Gary Lake and Back River people, and these elders now are found in Baker Lake, in Rankin, Whale Cove, some in Arviat, and Chesterfield. These elders identified over 120 traditional place names in this area

connecting the Thelon Wildlife Sanctuary to the Queen Maude Gulf Migratory Bird Sanctuary and expressed their concern about protecting this area especially for the caribou. And I have a map of the Huningiuk (sp) study on the wall in the back if you want to see those place names. In February 2005, Gjoa Haven, up here on the coast, the community of Gjoa Haven HTO wrote to the Canadian Wildlife Service requesting a bump up of the Queen Maude Gulf Migratory Bird Sanctuary to a national wildlife area citing their concerns about the Ahiak Caribou herd which calves almost entirely within the Queen Maude Sanctuary.

Finally, in June of this year, I'm sorry. In January of this year a caribou summit was held in Inuvik because of concern about the decline of the herds hunted in the NWT. This summit was attended by over 150 participants, including caribou management boards, grand chiefs, ministers, elders, hunters, industry, caribou biologists, and Nunavut representatives. Former Premier Stephen Kakfwi and I were invited to make a presentation together on behalf of WWF. It became clear at the summit that five of the eight caribou calving areas for the caribou herds hunted in the NWT are found in Nunavut. One of the strongest recommendations of the summit was to provide protection to these areas. Here you can see the extent to which these are partially covered off by existing protected areas. The Ahiak is almost entirely within the Queen Maude Gulf. But the others, the Qamanirjuaq, this part of the Beverly, the Bathurst, the Bluenose East, are just kind of hanging out there, open for business.

In conclusion, of all the things I've mentioned in my presentation I am unaware of any positive action, apart from approving the Thelon Wildlife Management Plan, any positive action by any Nunavut-based organization on any of these community-based conservation requests.

I respectfully submit to the commissioners and the staff of NPC that what's really at stake here are land use planning issues, especially the proper sequencing of conservation and development. There's a mining strategy for Nunavut and NTI is working on a uranium strategy, but there is no conservation areas strategy. This of course allows large areas to be committed to the mining industry before any conservation area planning takes place. But it should be the reverse. Conservation first while it's still possible.

How do NPC's existing land use plans deal with this issue? And what about the regions in Nunavut where there are no land use plans? What is guiding both conservation and development there? Isn't this going to create problems for industry if people want to protect areas where they already have been issued permits, leases, claims, as is happening in the NWT? How are international customers going to react when they discover that Nunavut diamonds or uranium could be coming from caribou calving areas or other areas which aboriginal people wanted to protect? And where do the IPG's, such as the Nunavut Wildlife Management Board, stand on issues as important as allowing mineral activity in calving areas of the Barren Ground Caribou when the management boards responsible for them have recommended that this not happen?

These issues are not going to be resolved and should not be resolved by WWF. They will only be resolved by Inuit. If Inuit are allowed to speak up, if the communities are listened to, and if their representatives act on their concerns. Mantna (sp), thank you.

---Applause

FACILITATOR: Thank you very much, Monte. I'll call up the next set of speakers, please. I've got Jerry Aicott, Barry McCallum, and William Noah from AREVA going to present on environmental issues related to uranium mine, and community and stakeholder involvement in protection programs.

Environmental Issues Related to Uranium Mines and Community and Stakeholder Involvement in Protection Programs

MR. AICOTT: Thank you very much, ladies and gentlemen. Pleasure to be here. Once again, my name is Jerry Aicott. I'm the director of licensing with AREVA Resources Canada Inc. My background is biology. I've been in the mining industry now for about 35 years, which is a little bit scary in itself. But I recall back when I first started having environmental people in the industry was unheard of. People used to ask me if I worked for the government. Once we got beyond that, of course, as we all know, environment became more and more important. And today it's one of the major parts of our organization. AREVA hires many, many environmental people, everyone from fisheries biologists to ground water scientists. And it's become a major part of any industrial development. So there's been a lot of change in personnel. And there's also been a lot of change in environmental protection management procedures, which is the subject of what I'm going to speak to over the next 30 minutes.

We're going to talk specifically about northern Saskatchewan because we have a long history of uranium mining and we'll show you how changes have evolved over time. We've heard in previous presentations that there's a number of problems associated with uranium mining. I think we look at them as challenges and we're working very hard on many of them. But I'd like to provide you with a little bit of time perspective so you can have an understanding of what was yesterday's problem, which may or may not be solved. What's today's problem, that we may have partially solved or we have more work to do on. And what really is tomorrow's problems. That will be the focus of my talk today.

I'd like to start with a little bit of history.

—Interjection

Thank you, Nick. A little bit of history in northern Saskatchewan. Mining first started back in the early '50's and in those days there really wasn't very much for environmental regulation. We really didn't know the implications of some of the things that we did for environment and we made some mistakes. And today we have some legacy sites that we're still cleaning up and we're trying to apply today's technology to make them better. It's the best we can do. The other thing that we can do is make sure we don't make those same mistakes again.

There was two major environmental assessments that were conducted along the history of uranium mining in Saskatchewan and they really resulted in many improvements. The first one I'm going to talk about is the Beyda Commission. The board of inquiry happened way back in 1978 and it was really a bench mark, it was really a moving from the next generation. The first generation of mines were the ones I showed you in the first slide. There was really no consideration of environmental concerns. People just

really didn't know that there was an issue with it. The second generation came after the Beyda Report and we started to have a very good appreciation for the information we needed so we didn't make those mistakes again. The third generation mines came after the joint federal panel that Dr. Don Lee spoke about this morning. I'm going to talk about the impacts of both of those inquiries.

First of all, the Cluff, the board of inquiry headed by Justice Eddie Beyda. This individual is very prominent in Saskatchewan. He's currently our chief justice. A very prominent man. And showed a tremendous amount of foresight back in 1980 when he conducted the first panel review.

Here are some of the major conclusions that that inquiry came to. First of all, the board of inquiry decided that we, as a mining industry, really need to have much more in the way of comprehensive environmental base line. We needed to do field-based studies that looked at the wildlife, that looked at fish, looked at all the aspects of the environment and quantified them so as we went on with operations we could actually measure if we were having an impact. Very fundamental today, but back in 1980 that was a significant development.

Also, the Beyda Inquiry recommended that environmental monitoring should have some regulatory foundation and that came with it. Since that time the Province of Saskatchewan have had monitoring requirements right in our licences. Again, a major development.

Tougher standards for environmental performance. He encouraged research to go forward and create values, standards that needed to be applied for things like water quality. Before that time there were no standards for Radium 226 in effluent water. Another good development that came from the Beyda Report.

It recommended that decommissioning should be part of the initial planning of any mining development and with that should come some financial security to make sure the operator was prepared to go ahead with that decommissioning or, in the even that he didn't, the government had money on hand to actually do that work.

And lastly, there needed to be research focus on the environment so we continually improve in our environmental protection capabilities.

So those were the main points that came from the Beyda Inquiry and, as I've said, back in 1980 they were very significant developments. They really raised the bar. So all the mining that occurred after 1980 were now to this standard and we much benefited from that exercise.

I'd like to talk a little bit about the next phase, which was the joint federal-provincial panel. Dr. Lee already spoke to us about that this morning and went through the 12 recommendations that his panel made. It was a very thorough investigation. As he mentioned to you, it took seven years to go through. Very comprehensive and considered a tremendous amount of material. And it was based on mining of the new generation, the third generation of mining of uranium in Saskatchewan. These were the very rich mines that had high quality uranium and they have to be handled in a little more cautious manner.

What I'd like to do is go through not all of the recommendations. You've heard those

from Dr. Lee already. What I'd like to do is just pick the key ones that relate to environmental protection and perhaps I can give you some insight as to how industry has reacted to them. In the question period, Dr. Lee told you he was reasonably happy with the response of the government to his recommendations and his panel's recommendations, but really the onus falls on industry to incorporate those recommendations into our operations. If that doesn't happen nothing happens. So I'd like to tell you how we, as industry, have reacted to those recommendations.

One of the first recommendations was that there was further scientific research required. I'd like to give you examples of three different programs that we are working on as we speak today at McLean Lake. The first one is arsenic in tailings. As with any ore body, at McLean Lake we have impurities in the ore. Particularly at McLean Lake we have a problem with arsenic. And when we did the environmental assessment through Dr. Lee's panel there was many, many days of discussion based on how we were going to control arsenic.

You heard Brian Reilly yesterday talk to you a little bit about the milling process. When we take the ore out of the ground we grind it up into very fine rock and we expose it to reagents to leach out the uranium. When we do that we also bring arsenic into solution. We've got to find some way to get that arsenic when we put it in tailings as waste, to put it back into a form that's immobile, that over periods of time will not release into the environment. Because it's very serious if it gets into the environment.

So we embarked on a very long program. We called it the Tailings Optimization and Validation Program. We employed some of the top scientists in North America, Colorado School of Mines, and McGill University out of Montreal, and we did a series of tests in a laboratory to determine how we could immobilize this arsenic. To make a long story short, essentially we added a little bit more reagent. It was a liquid form of iron called ferric. And if we were to add ferric to our tailings under certain conditions we could make that arsenic fall out and precipitate in a solid form that would be immobilized in the tailings forever. Very similar to the types of minerals that we find arsenic combined with in the original ore body.

So once we had developed that in the laboratory we had to prove it in the field. We employed that technique in our tailings system in the mill and we pumped tailings into the tailings pond and we drilled the tailings pond to the bottom and we took samples of the tailings to see if that was actually happening. And the best information we have today it looks very positive. We have tied that up. We are now looking at long-term monitoring to make sure it stays that way. So this was one program where we embarked on a lot of research. This program was in the range of about $700,000. So there's a fair amount of dollars expended on this one.

The second one I want to talk about a little bit is waste rock. I'll speak to it a little bit more, but one of the key things in preventing the drainage from waste rock is understanding how water flows through waste rock. We've employed graduate students from the University of Saskatchewan and the University of British Columbia to conduct series of research on this particular problem. Both at Cluff Lake and at some of the Cameco mines. And it's provided us with a lot of good information of how we control the drainage from a waste rock pile.

We also do a lot of research on ecological matters such as effects on fish. We, all the water that's collected from a mine or comes from a mill is all treated. After it's treated it's released to the environment. We have standards that we must meet from the government for quality of this effluent, but even if we meet those standards there are some other elements that may or may not be problematic. So we've done some further research to evaluate the effects of some of the things that we don't have a good strong understanding of. Things like uranium in the water, selenium, molybdenum. We've done those tests through the University of Saskatchewan Toxicology Department where they take some of our effluent and they put increasing additions of those types of chemicals and they compare the effects on fish, on plankton, on some of the underwater plants that we observe, and some of the underwater insects. All of which are good indicators of whether there's environmental stress on the environment. And by looking at the concentrations we can tell at what point there is an impact.

So we've been able to refine the levels that we want to make sure we keep our treated effluent at to make sure there's no downstream environmental effect. And one of the key ones we've found is selenium. Selenium nobody knew very much about 10 years ago, but in effect very small amounts tend to accumulate in the environment and they're particularly of interest in development of fish. If there's too much selenium it causes deformities in the fry of the fish. So we want to be very precise and know what that level is so we can stay below it. That's an example of some of the research and some of the favourable results that have come from this research.

A second panel recommendation was that we should have centralized milling. This one Dr. Lee talked to, so I won't spend too much time on it. You can see that we have a number of mines in the Athabasca Basin. As Dr. Lee told you, we currently have mills and tailings facilities at Key Lake, at McLean Lake, and at Rabbit Lake. So ore from McArthur River gets trucked to Key Lake. Ore from Cigar Lake will be trucked to McLean. And ore from Midwest will also go to McLean. So we very much adopted the recommendations and will be moving forward with future deposits in the Athabasca Basin to use those same existing mills. It makes a lot of sense to have up-to-the-date, state-of-the-art mills in a few locations and large intensively managed tailings locations in each of those rather than having them spread all over the country.

Okay. I'd like to spend a little bit of time on this particular panel recommendation because there's been a lot of discussion about tailings management. The picture that you see is from one of the second generation mines and int hat time frame, in the 1980's, we felt that the best way to handle tailings was to find a topographic depression, build a dam, and put the tailings in behind. And we've since found that there's some problems with that technique and some have been discussed here earlier. For certain there's some radiological issues. The wind blows, the tailings are exposed, there is some movement of long-lived radioactive dust. We have to control that. Also with tailings there's radon that emanates from that if it's left exposed. So those are two problems that we had to overcome. Also, when you expose the tailings in the winter time, obviously they're going to freeze. And when they freeze the water stays within the tailings. It doesn't squeeze out. And what that does is causes a problem with capacity. You lose capacity. The tailings now take way more space than they would otherwise. And there has been requirements in some of these above-ground tailings facilities to actually put heat or steam in to try to melt these down to reduce the volumes. There's

also an issue of segregation. If you dump the tailings at the top end of the topographic formation the course fractional falls out and all the slimes and problematic material go to one end and it becomes very difficult to reclaim or decommission. And there's the long-term care. We have to make sure that the dam is there in perpetuity and that the tailings are intact in perpetuity and that makes for long-term institutional control. All in all, we can do better than this.

So what I'd like to talk to you about now is the advances that we've made in tailings management and what they actually do for us. Why they actually work. This is the JEB pit at McLean Lake and you've seen this picture before. The mill is in the background. The pit was mined before the mill was ever built and the ore was stockpiled. The purpose was so that we could use this pit for tailings management. The tailings are produced in the mill. They are in a pipeline which moves down into the pit, out on the catwalk to this disposal barge and they're injected below water into tailings below. And as the mining operation and the milling goes on the tailings level rises.

Also, we have water recycling that goes on. This is a water reclaim barge. In one of Dr. Lee's pictures he showed you a cross-section, which I don't have here, but there is an added at the bottom which collects bottom water, pumps it up to the surface, both those sources of water go back to the mill, either for use in the process or for treatment and release into the environment.

Sorry, these seem to be sequenced.

Okay. Let me tell you a little bit about how this actually works during operation. You can see that the tailings are stored in an open pit, which gives us a much higher degree of long-term stability. During the operational phase, when the tailings are being placed they're being injected into tailings below and that really helps us in terms of many of the different issues that I showed you on the previous slide. First of all, it virtually eliminates the radiological issues. There's no gamma exposure to people that are down in the tailings pond because everything is under water. This water cover is between three and six metres deep. It will vary as we move up. But that provides adequate shielding for gamma radiation. It also provides protection from radon release. While it's very effective in terms of radiological release. Also, it prevents the tailings from freezing. Even in the winter time we'll get ice forming on the top of the pond, but everyone underneath will be unfrozen. So when we inject our tailings they stay unfrozen. This saves us in capacity and makes us better able to estimate how much size we need in our tailings facilities.

In addition, I spoke to you earlier about arsenic and the methodology that we employed to engineer our tailings. So we're actually developing tailings that are engineered chemically and placed in the bottom from the perspective that they're not going to release these chemicals as time goes on.

Now, a word about hydraulic containment, which is the philosophy of keeping the dirty water in and the clean water out. You'll note that the pond level within the pit is very low in relation to the surface water in Fox Lake. The surface water in Fox Lake is about the level of the natural ground water around the pit. So the natural ground water is much higher than the water in the pit. The tendency is for clean water to flow into the pit such that dirty water can't flow out. And that's the whole concept here. We control the water level through the barge pump and through the underground de-watering and recycle it

back to the mill. So while we're operating there's no ability for contaminated water to leave the pit.

We do have monitoring wells around the perimeter that we check to make sure that's the case. We also have fresh water de-watering wells. All these little buildings you see right around the ring. And they're purpose is to intercept some of that clean water that would otherwise flow into the pit and release it directly to the environment. And we control that by making sure the pump levels in each of those wells are well above the level of the pond. So it can only pump clean water.

Now, you might ask yourself, what happens when we decommission this pit? We're not longer going to have that hydraulic containment. The ground water level is going to re-establish up at the normal level, and this concept will be lost. Well, here's the thinking in the long term. We are going to continue to use the JEB pit until we bring the tailings level about to the top of the rock and that will be as far as we go in terms of placing tailings. At that point in time we will take the water from the top and recycle it through the mill, treat it, release it, or use it. And as a final decommissioning measure we will completely back fill the pit with sand and rock as was proposed by Dr. Lee. So over time, the weight of the tailings on themselves tend to squeeze the water out. And when we put the final layer of sand and rock over the top that will add further weight that further squeezes the tailings. And when we get these tailings completely de-watered or as much as they're going to we call it consolidated. At that point in time the tailings mass is going to be one solid mass that's very, very tight. When I say tight it's going to be such that water will not easily flow through those tailings over time. So the ground water, if it naturally moves from this end to Fox Lake, will continue to flow in that direction, but when it gets to the walls of the pit and comes to the tailings the tailings will be so hard for water to flow through it will flow around instead. And using that concept there will be much less contaminants that will move from the tailings into Fox Lake and the downstream system.

So we believe that this type of tailings management is a significant advancement to what we've used in the past and we believe that we'll be able to decommission a tailings pond such as this without having to worry about long-term monitoring. We'll still have to do monitoring to prove that it works, but we think that in time this is not going to be problematic for the environment.

I'd like to talk a little bit about waste rock management. You've heard before that there have been historical problems with acid rock drainage. And this is due to the fact that much of the waste rock around the ore is exposed to sulfur. When you bring that sulfur rock material to the surface, as Dr. Lee showed in his chemical formula, when air and water is exposed to sulfur it tends to turn to an acidic solution. The acid in itself is probably not so much a problem as the fact that that acid leaches out some of the impurities in the rock. It might be nickel, it might be uranium, it might be arsenic. But as soon as that acid is there it'll start to leach that out from the waste rock pile. This has been a long-term problem not just for the uranium mining industry. All the mining industries in the world have to deal with sulphidic rock. And we have many bad examples of how because we didn't know about this process back in 1980 we didn't handle the waste rock correctly. We've done a lot of research on this subject over the last 10 years and I'd invite you to talk to Dr. Grant Feesbe (sp), who's been involved

with the min (sic) program and coordinated a lot of that research. But I think the research has really helped us understand and deal with this problem and the way we deal with it now is to try and prevent it as opposed to try and deal with it after it's already on the surface. I'd like to show you how we do that at McLean Lake.

The key part in preventing the acid rock drainage situation is to prevent it from being on the surface. The way we do that is to separate the sulphidic rock from the clean rock. Now, in Saskatchewan we have large amounts of clean sandstone before we get down to the ore. And all that material has absolutely no problem. It can be left on the surface. All that has to be done is re-sloped and re-vegetated. But once you get to the clean rock, or the rock close to the ore reserve there can be some sulfur and there can be some problems. So we try and separate those rocks and in order to do that we have to know where the sulphidic rock is going to be first encountered. When we're mining the pit down from the surface in benches we have to drill each bench separately first and then we blast the rock so the trucks and shovels can actually mine it. But before we do that we have a probing system that we probe all the holes with. This shows a gamma probe going down the hole. And it identifies where the mineral rock is going to be. If we know that beforehand we can arrange to have the trucks haul it to a special place that's got a plastic pad underneath it and we temporarily store it on that pad. All the rest of the clean waste rock can go on the surface. We also do some other things to cross-check this method. We take cuttings from each of the top of the holes and we do chemical analysis because it could also have things like arsenic and nickel and other contaminants that we wouldn't discover with the gammametre. And the third thing that we do to make sure that we've got Everything is we do manual sampling radiologically on the clean waste rock pile on a daily basis to make sure that we haven't made a mistake and accidentally put some sulphidic rock into the clean rock pile.

So by taking all these measures what we're able to do is separate the special waste, which has some sulfur in it, and when we're completely finished mining the pit we take that special waste and we move it down to the bottom of the pit, which is at some later time either covered with rock or flooded into a final lake during decommissioning.

I would also like to talk a little bit about site water management. All the water from both the mines and the mills get treated before it's released. This is a picture of the inside of the McLean Lake JEB water treatment plant. You can see there's a number of tanks, pumps, vessels, and the way we treat the water is we introduce chemicals. We have one stage of treatment which removes Radium 226 and arsenic. We have a second stage of treatment that removes all the heavy metals. And the sludges which contain those materials all go to the tailings pond. The clean water then can be released. We discharge that water treatment plant water into monitoring ponds. We actually measure the water quality before we let it go to the environment.

We should talk a little bit about environmental monitoring. We do a lot of that. It's the responsibility of the company to do compliance monitoring to make sure all of our emissions meet the standards of the regulatory agencies.

In addition, the Canadian Nuclear Safety Commission and Saskatchewan Environment have project officers who come to our site on a regular basis and they do check sampling to make sure that our results are accurate. We also do a program of environmental effects monitoring. This is usually done in about a three-year rotation.

With this we're looking at the lakes and streams downstream of our effluent release. We're looking at sediments. We're looking at underwater insects. We're looking at plankton. And we're looking at fish populations, fish habitat, and fish growth and survival information as well. It's a comprehensive look every three years as to, are we really having an effect on the environment or not? And if we are then we incorporate measures to mitigate that.

In addition, Saskatchewan Environment do a downstream program of cumulative effects monitoring. You've heard a little bit about cumulative effects, but you've seen in Saskatchewan we have a number of mines, some of them on common watersheds. These cumulative effects monitoring programs look at the combined effects of more than one mine.

There's also monitoring done at the community level by an Athabasca working group who has representatives from each of the Athabasca communities. These include things like water, potable water that they actually take for their communities. Sediment right outside their water supply. The fish in the neighbouring lakes to the communities. And this is done by an independent consultant. It's funded by the mining industry, but other than that we have no involvement. The consultants come to the communities, they talk to the community leaders and get a volunteer to go with them. They conduct the sampling. They do their own analysis. And the consultant comes back and tells them whether there's any problems with the local environment or not. We fund that. Other than that we don't get involved.

In addition, the environmental quality committees, Betty Hutchinson will be speaking about that this afternoon. They do monitoring as well. The idea of that is to support Saskatchewan environment and support the community involvement in monitoring such that they're very much on board with what water quality is in the communities.

This is a map which shows all the monitoring in the Athabasca Basin. Air quality, sediment, vegetation, benthic invertebrates – which are underwater insects, water quality, and fish. And taken together you can see there's a fair amount of dots on the map. The idea here is just to show you that there is a tremendous amount of monitoring that's done.

Particularly in our third generation mines, the new mines with the rich ore – McLean mill, McArthur River – these are mines that have very small imprints on the environment. Because they deal with very rich ores there's not a lot of mining activity. It's all isolated in a very small area. We're able to reduce the footprint. And of course we're able to use state of the art methodologies. We plan for decommissioning from the beginning and that's a key part of developing the mine and the mill.

Just a couple slides here about reclamation and decommissioning. This is the Cluff Lake mine on the west side of the province. It operated from 1980 to 2002. It took us two years to decommission it, 2004 and 2006. So that project was just recently finished and we're now doing post-closure monitoring to make sure what we did is going to accomplish the objectives that we're looking for in terms of long-term water quality, groundwater quality, all those other issues. This is the DJX pit, which has been flooded into a lake and you can see that all the previous buildings have now been removed. This area was planted with trees last year. They're a little bit small to see from this

photo at this point in time, but I'd like to come back in about five years and be able to show you some trees there. This is another photo from Cluff. This is one of the other open pits that also has been flooded. It's been progressively reclaimed quite some time ago and you can see that it's looking pretty much like a natural environment.

The last subject I want to talk about before I close here is perpetual monitoring. I think this was one of the recommendations that the panel made and we've taken this very seriously as well. I think I told you that decommissioning is now planned from the outset and with that planning comes some financial assurance. We've put money or securities up for the beneficiary of the government, so if we default on our decommissioning activities they have money to fall back on and do the job themselves. All the decommissioning before we can go ahead with it is subject to environmental assessment. So the people of northern Saskatchewan were very involved in the Cluff decommissioning before it actually happened. As a result, we were successful in this assessment. We listened to people's concerns. We went ahead and did the job. Now we're in the phase of monitoring it to make sure what we predicted would be the long-term effects are actually true. If they're not, we've got more work to do before we are relieved of that responsibility.

In addition, there's going to be another environmental assessment required before we can be released from our responsibility at the site. For that we have to put all the results of our post-closure monitoring on the table and say that the evidence supports that we were successful in our efforts. Even after we do that there's going to have to be some long-term perpetual care, particularly at Cluff because it's a second generation site and does have an above ground tailings pond. But in Saskatchewan the province has been quite active, and they've dealt with the Canadian Nuclear Safety Commission, and they've developed an act and regulations that they call the *Reclaimed Industrial Sites Act*. That regulation allows the province to take over the responsibility if after the abandonment period we can show that the monitoring has been successful, but in order to do that they take on the responsibility of perpetual monitoring. And the industry funds that. The way the regulations are written we provide cash funding for the monitoring, cash funding for maintenance, repair erosion, those types of things. Plus we provide a long-term security for a maximum failure event. So this is a new piece of legislation that the Province of Saskatchewan have developed.

I'd like to close just by saying that I hope my presentation has been able to show that we've made very significant advances in environmental protection over the last several years and I think the way that we manage our business today is much, much better than we've done in the past. It's a result of more knowledge, better research, and we're still committed to those values because we want to continually improve. I think it's fair to say that should we be successful in the future of having uranium development in Nunavut we'll be bringing with us the state of the art. You'll be getting the third or fourth generation type mines and we'll be even better at what we do than we are now.

With that, I thank you and I'd like to bring up Barry McCallum to talk to you a little bit about the next phase of our presentation.

---Applause

MR. MCCALLUM: Thank you, Jerry. My name is Barry McCallum. I'm the manager of

Nunavut Affairs for AREVA Resources Canada Inc. And for the past couple of years I've spent much of my time in Nunavut and most of that has been in Baker Lake. My presentation is going to be much shorter than I planned to make it because we have 15 or 20 minutes left and there's another one to follow after this one. I'll be talking about the measures that AREVA is taking to ensure that the caribou are protected from our exploration activities and our potential future mining activities.

First, our project site. The Kiggavik site is 80 kilometres west of Baker Lake, half way between the Thelon Game Sanctuary and Baker Lake, and it's about 70 kilometres from the Beverly Caribou calving grounds and about 200 kilometres from the Qamanirjuaq calving grounds.

This is what the Kiggavik exploration site looked like last year. After 30 years of drilling activities there's very little impact to the environment. It's a small footprint. Most exploration sites are like this. Exploration took place from '74 to '97 and we're going to resume this year.

A little bit about sustainable development. All AREVA projects must balance environmental protection, social considerations with economics. We've been speaking with stakeholder groups for the past couple of years. We've talked to many groups, hamlet councils, hunters and trappers, the Beverly and Qamanirjuaq Caribou Management Board. We've participated in uranium information sessions all over the Kivalliq. The message is clear: mining will only be permitted here if it brings substantial economic benefits, if people are consulted with throughout the process, and involved in the decision-making process, and if the environment – particularly the caribou – are adequately protected.

Caribou protection measures have been in place for a long time. The measures change with time of year and with the location as compared with sensitive caribou areas. Permit conditions are becoming more restrictive. Government and non-government people are commenting on screening documents and suggesting much more protection. Our permit is more restrictive caribou wise than it would have been a year ago.

This just shows a series of plans that we have in place to carry out our operations this year. One of them is a wildlife management plan. A wildlife mitigation and monitoring plan. Our plan contains altitude restrictions for fly in. In fact, 600 metres, about 2,000 feet when we're flying between here and the camp or any other long-distance flying, provided the weather conditions permit it. We'll have independent wildlife monitors on the site throughout the summer. We'll be doing 20-kilometre by 20-kilometre caribou surveys every week. We'll be making caribou observations. Our intention here is to protect the caribou while we learn more about how caribou behave around exploration sites and how effective our mitigation measures are. So we'll be doing ground observations of caribou. We'll be suspending activities if the caribou approach the site too close. And all of this will be under the direction of the biologist.

Other areas where we've been working. We've met with the Beverly-Qamanirjuaq Caribou Management Board a couple of times now. In fact, yesterday Bob Pollack, one of our vice-presidents, signed an agreement with the caribou management board on population survey work, population studies. We agreed to provide $125,000 in funding over the next few years for cooperative studies. We're cooperating with the KIA

monitoring program. Caribou is a topic of our committee liaison community discussions and it will be the topic of a traditional knowledge discussion that we'll have here in town. We want to balance traditional knowledge with scientific knowledge so that we put the best measures possible in place.

I'm not a trained caribou observer, but I can't help but observing caribou. They're all over Baker Lake for much of the year. And this is just a few pictures that I've taken around town here the past while. These guys didn't seem to take any notice at all as we drove 100 yards or so past them on a road leading out of town. This guy certainly changed his behaviour, stopped feeding, looked at us. The rest didn't seem to notice. These guys ran across the street. This is from a couple years ago in Saskatchewan and those guys are running very fast. There's hunters shooting at them. So these are the kind of behaviours that we're going to be documenting under the direction of a biologist so that we can continue to improve our caribou protection measures because we know we won't be mining here unless we learn enough about caribou to put adequate measures in place to protect them from the mines.

Thanks. I'll turn it over to William Noah.

---Applause

MR. NOAH: (Begin Translation) Good afternoon. I'm going to, as I'm out of time I'll speak fast. At this point what I'm going to say is going rather fast, rather quickly. I was born up in Back River area and had, and we had moved to Baker Lake during the famine back in '57, '58. And the children that our youth had to go to school so we had to move, they had to move to Baker Lake. And while we were on the land obviously it was during the famine it was rather hard to live and so we had to move to Baker Lake. I'm an artists right now up to today.

And I started with AREVA, I used to oppose the mining companies not really understanding, because I didn't really understand them, but since then I, when I started visiting northern Saskatchewan I started seeing that back then they can now use computers and so on and so now I'm working with AREVA and I'm the coordinator for the Inuit in Baker Lake.

As I'm, even though I'm and whenever possible, when I'm not working I use Inuit. I normally travel to where I grew up to Gary Lake area. For those who lived in the Gary Lake area. Using the Inuit tradition, I still work on and I, when we make, when we're drying fish and we use the Inuit tradition still. Even though we're working while we are still working with the mining companies. We'll head open last fall, we're now working and where I'm now the coordinator. When we were opening there were a lot of people who were happy to go to opening and whenever the Inuit want further information or if they're looking for work they come to me and also any information on mining.

And here in Baker Lake also as we were opening the office back in 2006 KIA and TIA were represented and from the federal government had come to Baker Lake too and we had some fun in here in the community hall with a feast at the time.

And the people okay there's now who have been appointed the Baker Lake community liaison committee and they when they first started December 2006 they started meeting and we still meet once a month. And also through the local radio we inform the

community and whenever the committee is meeting the people who come to the meetings are able to speak and we're always open to anyone who wants to come to the meetings and ask questions. And because the Inuit we have the elders or anybody that they have a voice and they are able to speak. And we also want to gather and hear more of traditional knowledge for those who lived in the Killaviq area.

And, and other KIA boards, ideals, also came to go and see the McLean Lake in northern Saskatchewan and I have maybe to Cluff Lake when Cluff Lake was still open I used to go and see them. It was last, I was down there again in the uranium I went to go and see all of the mines that are still open. Here are the people at because they live near the area of Killaviq went to go and see where they grew up to Beverly Lake and to Shultz (sp) Lake. There were 17 people Inuit who went, who, maybe not all of them, but and also went to brought them over to and stop and hover over the area of Kiggavik and what I'm talking about in the helicopter while we were hovering over the area these two pictures were taken as we were hovering. The two elders, mainly three who came originally from the Killaviq and who lived in the area their whole lives they were asking to the environment or the caribou or they were always asking if the caribou and the fish and the environment will be well monitored.

And the people from the Killaviq, we took them to their traditional lands and it was we really felt from Beverly area and to from the Aberdeen and Shultz Lake areas, we also went to show them the graves. Here's another person who was, she had gone to, when it was very, she was very happy to see the former tent ring that she had built. And there is an old kudluk (sp) there and you could really felt especially when and we also sang a hymn with her and she was really happy and not having, she was very, very happy to either because she had not seen the area for 40 or 50 years and when she finally got she was, she cried and she laughed and when I went with her, Janet Eegootook (sp), she was really, really very elated.

And here we met with the Dene people in northern Saskatchewan who are hunters and trappers. And we also met with them here. Even some of them are here during our meeting.

We also went to also travelled and met with our fellow Kivalliqmiut or people of the Kivalliq who would join us, who could join us, especially mainly as a Baker Lake and Chesterfield are going to be really affected as they're not, we're going to be able to, obviously Chesterfield people are going to that have to deal with the barges and they want to, they also want to protect whatever all the wildlife in the, because we have work to be it is not like back then in '50, during the famine of '57-'58, we don't want to go through that famine time again. I wonder what you're thinking and we not only in Baker Lake we hear from food and sugar and we keep hearing over the local radio people wanting caribou or maybe if we open more jobs for them are the people not only in Baker Lake but all the other Kivalliq people there, people of Kivalliq would be helped. And we can also check through and we know that uranium is and we're now using back in, you know, we used shovels and that's all they used were hammers. Now we can use, and now we can use computers to do our research on wildlife, water, and Everything else. Thank you. (End Translation)

---Applause

MR. MCCALLUM: I'd like to acknowledge that the BQ Caribou Management Board provided some of the pictures for my presentation. I left that out.

FACILITATOR: Thanks very much, William, Barry, and Jerry, for the presentation. Just a couple announcements before lunch. Asking people to sign up for tonight's community presentation or community session. It's for, the session is designed for the residents of Baker Lake and the representatives of community organizations from the other communities. People will have five minutes to ask a question or raise an issue and if there's someone in the audience to respond we'll direct that response, but really request you to sign up. Speakers will go in the order that they've signed up, so we encourage you to sign up as soon as possible to get the chance to be on the agenda. It will go from 7:00 to 9:00 and we'll stop at 9:00.

As a request from a number of participants, we've got the Jessie Oonark Art Centre opening at 12:30 this afternoon so that people can go over the lunch hour. So those people that are interested, please do drop by as staff will be giving up part of their lunch hour for that. And I think that's it for the moment. We'll see you back at 1:30. Thank you.

—LUNCH BREAK

MS. EHALOAK: – the Nunavut land use planning process will be launched later this year. Thank you.

FACILITATOR: Thanks very much, Sharon. Betty, if I can have you and your team come on up.

SOCIAL/CULTURAL ISSUES AND MITIGATION MEASURES

Social/Cultural Issues and Mitigation Measures From Northern Saskatchewan

MS. HUTCHINSON: Good afternoon, everyone. I would like to thank you for your invitation to come and speak to the people of Nunavut about the Saskatchewan community experience with the uranium industry. With me today I have Mr. Norman Wolverine, who's a member of the English River First Nation, and Mr. Mervin McDonald from Stony Rapids, Saskatchewan. They are both EQC representatives and co-chairs of sub-committees that report to specific mine sites.

Our plan for this afternoon is I will go through briefly how the EQC is set up and why it's set up that way. Part way through the presentation Norman and Mervin will field any questions you may have from the community representatives. And we'll wrap up with just a few minutes on community vitality monitoring partnership program and what it actually means.

So we'll start off with the purpose of the Northern Saskatchewan Environmental Quality Committee. It does a lot of good work, but it has a very difficult name. The purpose of it is to act as a bridge between northern communities, the uranium industry, and the regulators of the uranium industry. Mervin and Norman, as representatives, bring community concerns forward and have the ears of both industry and the regulators and conversely take information back from industry and regulators to their home communities. As part of the role there's workshops such as you've gone through in the last couple of days that prove to increase the knowledge of community representatives and it ends up being a far more informed group than possibly the general public of the

North might be.

Now, just to give you a bit of background. In Saskatchewan we have a fairly unique environment. We have about 38,000 people in northern Saskatchewan and it covers an area of approximately 326,000 square kilometres. Some of the challenges are similar to what you face in the distance and transportation issues. We have seven communities with discontinuous access who rely on air support, barging, and seasonal roads.

This is a map of northern Saskatchewan for you. And someone ... is this the magic pointer? I need operating instructions. Sorry.

Just to show you, there's Stony Rapids. That's where Mervin's from. And over there is Patuanak, the main community for the English River First Nation. The mine sites are Cluff Lake, Key Lake, McArthur River, Cigar Lake, McLean Lake, and Rabbit Lake. In the Uranium City area there's Beaver Lodge, which is currently under care and maintenance and decommissioning which the EQC is involved in, as well as the abandoned sites that are now being cleaned up.

So the EQC is basically a partnership between northern communities, federal and provincial governments, and the uranium industry, who in Saskatchewan are Cameco and AREVA. Now, the selection of communities is done in conjunction with each mine site. So with each uranium site in Saskatchewan the industry is obliged to name impact communities or communities that could be potentially impacted by activities at that site. Once the community's been selected the leadership are asked to put forward nominations for community representatives and then they're actually appointed by the provincial government.

At the back of the room I have placed a number of annual reports and on the back of the annual report is the mission statement that was developed earlier by the EQC. And it outlines some of the roles and responsibilities of the EQC.

Now, some of the activities that we're involved in to give you an idea of what it is we actually do. We hold meetings three to four times a year. These meetings last a day and a half and the purpose of the meeting is to provide balanced information to the community representatives on current activity within the uranium industry. So for instance, if there is a licensing issue for a particular site the operator of that site would be on hand to describe what their perspective is, as well as the regulator. If in the event of a federal licence it would be the Canadian Nuclear Safety Commission. In the event of a provincial licence renewal it would be Saskatchewan Environment.

Now, you can appreciate what you've gone through in the last day and a half. That's what these gentlemen go through four times a year. Now, the lingo and the sites may be more familiar to them, but it's a fairly intense session each time we meet. We have access to a wonderful array of speakers. Industry as well as the regulators are very cooperative in providing whatever resources are requested by the communities or experts to be able to discuss or carry on demonstrations of something that's been questioned.

This is an example of some of the presenters that we have at the EQC. This is Dr. Ernie Becker. He works with Saskatchewan Labour. And he is available to us whenever we choose to deal with any labour issues, occupational health and safety, radiological

safety, and the different techniques that are being worked on. Fred, who spoke yesterday, is also a speaker, or some of his colleagues from the Saskatoon office of the Canadian Nuclear Safety Commission. They will come and present any issues they may have with the mine sites or confirm or deny rumours that may have arisen in the communities from different aspects.

Beyond our quarterly or three times a year meetings we also attend each mine site at least once per year. The picture here is taken at the Cluff Lake site with the Northwest Environmental Quality Committee, which Norman is a member of and co-chair. So we tour each of the sites. For the sites that have both mining and milling operations to best look at all the facilities we do the mine and exterior one year and we do the mill and interior a second year.

The other point about the mine site visits is it gives community representatives an opportunity to visit with employees from their site at their workspace. So for instance, an employee may have brought a concern to one of the community representatives, but not being 100 percent familiar with the site they don't quite understand what it is they're talking about. So when we're actually at the site that employee has an opportunity to show the community representative what the concern is or is not. And it also gives representatives an opportunity to actually see what the sites are all about.

This picture is taken at the mining tunnels at Cigar Lake and one of the comments, actually, when we were on this tour was we should have roller blades to get around when we're underground at Cigar Lake because the distances are actually quite great. And it just gives community representatives a whole different perspective on what's actually going on at the sites. As well, it gives us an opportunity to see what the safety gear is like and the conditions that the actual community members work under.

While we're on site we have a site meeting where each individual operation gets to present information on worker health and safety, any environmental incidents that may have occurred, and basically showcase their operation. As you can appreciate, when we're at our quarterly meetings each of the six sites often have something to say, as well as the fact that the regulators may have something new to bring up. So the time is very limited. When we visit the individual sites the entire day is devoted to that site and what goes on at that site.

We also have opportunities for other initiatives. This is a tag-along inspection where one of our EQC representatives is actually accompanying a Sask-Environment project officer on a regulatory inspection at Cigar Lake. Right now we're doing side-by-side grab samples at the former water outlet at Cigar Lake. And as you can see, the project officer has on the yellow hat, our EQC representative has on the blue hat, and it was a very intense day as we went through each and every activity that the mine inspector would go through. Obviously you can't do these types of activities with 30-plus individuals, so we do have opportunities for smaller groups within the EQC to come and participate in special activities such as this.

Other small group activities we're involved in are things like special briefings prior to a licensing or a re-licensing of a site, explanations of special areas of concern. Earlier this morning Jerry mentioned some issues with selenium. At that time we were able to call upon Dr. James Irving, who is a medical health officer, to explain the effects or possible

effects of selenium on humans prior to preparing papers that we submitted.

Another thing the Northern Saskatchewan Environmental Quality Committee has become active in in the last three years is an interaction with the Canadian Nuclear Safety Commission. As Fred mentioned yesterday, there are two branches. There's the staff, which is Fred and the inspectors and the experts, and there's also a commission which is made up of experts and we present in front of them. Now, similar to a hearing, this is a semi-judicial procedure and they're very particular rules you must follow. This is actually a picture similar to what Fred had. The commission actually held hearings in La Ronge and we were able to bring a large group of people in.

We have three opportunities for participation in a normal hearing where we can travel to Ottawa and participate live in the hearing room. We can participate via video conference from the Saskatoon office. Or we can present a written submission as we have in some instances.

By providing these interventions we have actually been able to affect change. And one of the things was, as you will get further and further into the uranium development or you may, you will realize that nothing in uranium happens without a huge stack of books that you wouldn't have a hope of reading all of them as a common person. So what we have encouraged the CNSE to do is to provide briefer, more succinct documents that we can read and readily understand called mitigation tables that go with environmental assessments. And we've also been able to influence other decisions made by the commission.

Obviously the EQC representatives participate in community meetings in their own communities. They act as an information source within the community and, such as today, we have been active speakers in other jurisdictions presenting our model and what we have found to work in Saskatchewan.

To ensure that we keep a fairly broad perspective on what's going on in the national perspective we attend the Canadian Aboriginal Minerals Association conference on an annual basis. And at that time the representatives have an opportunity to interact with other mining, other aboriginals who are involved in the mining industry throughout Canada.

Am I talking too fast? Okay. It's a bit late to ask.

Now, as I mentioned, there are 30-plus communities in northern Saskatchewan, so communication is a challenge. Norman, I think there's about 900 people in your community? So Norman would have a tough time speaking to all 900 people on a regular basis. So we try to provide some support documentation, such as the annual report that you may find at the back of the room. It's obviously provided once a year.

In northern Saskatchewan we have a publication that's dedicated to industry and development. It's published five times a year and our activities are always documented in the middle four pages of that publication. The publication is delivered to every household in northern Saskatchewan, so there's an opportunity for people to track those decisions in Opportunity North.

And in addition to that we have community posters that each representative has to put up in their community. There's the representative's phone number, as well as mine, for

community members to get more information or to have questions answered on their interests or concerns.

So while we have a model and it works quite effectively from all perspectives, there are obviously challenges to it. And one of the challenges that we find is, while Norman's been on the EQC for about 12 years, since its beginning, other representatives are new to us. So we're doing continuous updating, re-education, orientation, those kind of things. And another challenge is the continuous changing of resource people both from a regulatory perspective as well as from an industry perspective. When we meet frequently with people from the regulatory industry or, from the regulator or from industry we have an opportunity to develop a bit of a trust relationship with them. And I think that's very important. I think we would be fooling ourselves if we believed that we could get to the point where we could read each of the uranium development documents and fully comprehend or understand them. So developing a trust relationship is very important to recognize that what is being done is done with care, caution and responsibility.

Obviously a third challenge which we all face daily, I will find someone to set the little clock as I walked in the door because I'm a bit technologically challenged on that. The processes change and technology advances. So it's a continuous learning curve to keep up and to maintain what's going on.

With that I'm going to turn it over to Mervin and Felix, so if anyone has any questions for them. Sorry. Mervin and Felix are always together, so we have a different. Mervin and Norman, if you have any questions for them, they'd be happy to answer them. Don't everybody ask at once. Yes?

UNIDENTIFIED FEMALE SPEAKER: How are you funded?

MS. HUTCHINSON: Do you want me to talk about that? Sorry about that. That's something that I missed earlier.

UNIDENTIFIED FEMALE SPEAKER: Yeah, just maybe the trans, I questioned how they are funded.

MS. HUTCHINSON: Our funding is very small, actually. But it comes through the provincial government as our primary and consistent source of financial assistance. The funding is for travel, accommodation, and meals for the representatives. Any of the experts we get in are free of charge to us. So for instance, if there's something about the federal environmental assessment process we don't understand the Canadian Environmental Assessment Agency will make a speaker available to us. When we go on our mine site tours, transportation to the sites and meals at the sites are provided by industry. Every now and again we have an opportunity to access other funding such as participant funding through the Canadian Environmental Assessment Agency. From time to time Indian and Northern Affairs Canada has programs that provide funding for First Nations to review projects on adjacent lands. So our consistent funding comes through the Province of Saskatchewan. I'm actually a provincial employee, but these are my bosses.

FACILITATOR: Just wanted to remind people to identify themselves as we're taping this.

MS. HUTCHINSON: If there aren't any questions right now would you like me, I'll pass the mic on to Normal and Mervin and they can maybe share with you some of their experiences being as an EQC representative or what they think is the benefits of the program for themselves or their community.

MR. WOLVERINE: Good afternoon, ladies and gentlemen. I'm Norman Wolverine. Like Betty said, I'm from Patuanak, Saskatchewan. I'm a First Nations person. Approximately 35 years ago all this information was introduced to us in our communities. It wasn't so in Patuanak, like, we had to travel to Buffalo Narrows. Because that's where it was held. I remember Dr. Lee was going around at that time and a lot of us did not understand what uranium was about. That was many, many years ago. But today the way we understand it is different. We acknowledge it. We notice a lot of benefits that could be had by these industries. There's a lot of good communication now with these industries in the North. People have redeveloped in their ways of life. I can honestly say that it's something good if you work good with the industry, but you have to be there.

When we were first introduced to uranium a lot of our elders did not understand what they heard. I guess at that time to me it wasn't true. You know, they kind of put a fear into what uranium was going to do to us. But we let it go, but we find out it's different today. So as a First Nations person living in the area, like, we are impacted by Key Lake and McArthur Mine. You all heard how it's operating this right up to date.

The only problem that our people at Patuanak have, there's always that one question about the tailings. The above-ground tailings. We know in the future that when the industry is going away, after they've mined out the sites, that the above-ground tailings are going to be left behind. We all know that. We all have a good idea of what's in there. So what the people of Patuanak have asked me to ask on different occasions is asking the mining company to put that back into the hole where it came from in the first place. So the tailings, like, we've been asking and I think, like, it was starting to, I was starting to sound like a broken record at these meetings, you know. How about the above-ground tailings? You know? Can't we put that back into the ground? So they've done a study. They are still doing a study. I think they have acknowledged recently that they will put that back into the hole. There's two dugouts. One is being used for tailings right now and then there's another empty one at Key Lake. So they are going to eventually put that back into the pit. So if I relay this message back home and say, hey, look, we're going to get our way in the end, like, you know, we're going to have the tailings put away and Everything will be covered up and it'll be monitored for 20 or 30 years after it's all done. We are assured by the industry that it's going to happen.

Now we have a lot of trust in that. We have to build up a lot of trust into the mining companies. At the beginning nobody knew, eh? Today it's a different story. So we trust what's happening because they give us a lot of information that we request. And if the chief and council back home have some major questions they themselves will go towards Cameco or AREVA. They'll go right to them. Otherwise all the people in the community, all the rest of the people that have questions, then they'll go through me and we'll go through the whole channels.

So that's my side of the story for now. I'll be in the back there if some other people want to ask questions, you know, that don't want to make it public or something like that. I'll

be in the back over there. Thank you.

---Applause

MR. MCDONALD: Good afternoon. My name is Mervin McDonald. I represent the Hamlet of Stony Rapids, Saskatchewan. First of all I would like to thank the organizers for inviting us, the mayor and the people of Baker Lake for welcoming us here today. My experience with uranium mining. I work at a uranium mine for Cameco Rabbit Lake and I've worked there for 25 years.

I find that the mining do a lot of training, radiation safety, and they work towards improving their operations by upgrading their water treatment plants where they say they're going to bring me their, like, metals, like, that's what they were talking about today to the lower level. I see them day by day there what problems they are doing.

I guess if you guys want to talk to me later about the mill, I work in the mill at the Rabbit Lake mine. I guess that's about it. Questions?

---Applause

MS. HUTCHINSON: Does anyone have any questions?

UNIDENTIFIED MALE SPEAKER: That water was for the other guy.

(Laughter)

MS. HUTCHINSON: Yes?

UNIDENTIFIED MALE SPEAKER: (Begin Translation) Thank you. (End Translation) Just asked about benefits besides jobs. What other community benefits do you receive from the industries? For example, I'll just, you know, in some cases they give community support through, you know, providing skates or, you know, that kind of benefits. Community, directly benefiting communities.

MR. WOLVERINE: We have, at different times of the year there are different things going on. So we usually get donations from the mining companies towards the youth mainly. A couple of years ago or three or four years ago we asked for a donation from Cameco because we hold our annual cultural camp on the Key Lake road. So they donated money towards making a building. Things like that. You know? They're very helpful in those areas and they have scholarships as well at schools. And then there's different times where they will donate to different functions in the area, in the surrounding areas. So you know, there are some benefits. But just to give out money, you know, they will never do that, eh? So I guess it's all in a way like that, yeah. But there is, you know, there are some small benefits.

MR. MCDONALD: Just recently in Stony Rapids we had a donation for a hockey rink. That was good.

DR. LEE: Don Lee here. Could you tell us how you got on these committees? Were you appointed or elected or is your wife influential or?

(Laughter)

MR. WOLVERINE: No, I guess the government sent in, like, Betty, she'll send in request forms from the chief and council to nominate someone from the community to

represent that community. So the chief and council in turn will put a person's name down, they'll ask that person. They've asked me for the last, I don't know, six times, I guess, like we serve two-year terms. So if you change somebody else on that same community you'll be re-educating that person on what's happened in the past few years. So they've kept me on and we have good communication between the chief and council and the government. Maybe that's because I worked for the government for a couple years before, I don't know. It works out that way anyway.

MS. KADLUK: My name's Becky Kadluk (sp). I chair the board that runs community-based counselling service in the community. This is probably outside of your presentation, but I'd like to ask the two gentlemen if they saw an increase in social problems in their community and was the mine willing to fund such programs to help the people in regards to alcohol, for instance, drugs, and family violence? Thank you.

MR. WOLVERINE: Every community in northern Saskatchewan I believe now has it. It's an addiction awareness program worker. We've had ours in place, like, even when the mines started up. So we have our own counsellors, we have our community people working in this area because there was always the social problem. Whenever a road went into a community. And back in '74 when the road came into Patuanak people were already aware that there was going to be some social problems, although there were some already, you know, in place. So any community will have a social problem and I don't think it's up to the mining industry to prevent that, although they know that they're going to hire a lot of people.

You know, like, we, like, I'm considered an elder in my community now, so I will have an input. Although I don't come from an EQC perspective. But I will tell these younger people that are growing up now that might be working in the mining industry or wherever they're going to work about their awareness on the social programs that we have on the reserve. We have a lot of problems all over the place and I think every community is aware of that.

So no, I don't think the mining industry has a ... they can stop these kind of problems.

MR. KADLUKTIJUK: Peter Kadluktijuk (sp). Thank you. I like to hear from yourself, not from the industry, but from yourself as to First Nation who's living in that province and coming from the communities as well. I believe there are at least three or four mine sites in your area in northern Saskatchewan. Can you tell us as to what person each of these are First Nation who are working in the mine site, but at the same time that the industry provides training on jobs for younger generations? Like, people who doesn't really have skills, just coming out of school, or whatever. You know? Does the industry provide training on jobs to the First Nation?

MR. WOLVERINE: I can say yes to the training on jobs. The industry is willing to train people in different areas. But back home we stress the fact that they should train. Every year we have our annual meeting and I stress that we need a mining engineer coming out of Patuanak. But I guess it still hasn't sunk in. We got a lot of university students from Patuanak going to university, but no mining engineer. It's up to them what they want to be. So Northlands College also provides training that the mining industry requests to Northlands College. So that way when you send out young people you make young people aware that there is training available for this kind of, a certain job at

a mine site. They will go there in La Ronge. So that way the government is doing something for all the communities involved in northern Saskatchewan.

As far as people working, First Nations people working. From English River there's 24 people being employed permanently by these, at these two mine sites. Or maybe three now. Three mine sites. Although we have more young people coming up. As they get aware of certain jobs I guess it'll be up to us as elders to tell them, look, this is what the mining company needs. This is the kind of people that they're looking for. So we train our younger people to train themselves in what they want to go in for. It may not always be a mining industry that, or mining career that they want. Maybe they want to be a teacher or maybe they want to be something else. So we have the information ready for these young people, whatever they wish to do.

There's lots of other little jobs aside from mining. Mill workers, things like that. There's lots of other little jobs that people from every community wish to have short term jobs. So we try to provide that as well. I work with, in my office we have four offices and one of them is the economic development office right beside mine. And I work with that lady and give her as much information as I can by, provided to me by the mining company. So that lady will in turn ask these younger people that have signed up looking for work. So that's who we regulate information to and from the mine in my community.

So now, I've told you that we have 24 people working and there is training available. We have our own company that do training as well. We're, we training people what they want to be and then sometimes the industry takes them away on us, eh? They hire them at a better job. So it works both ways, I guess.

UNIDENTIFIED MALE SPEAKER: I'm wondering if you could be more specific about the percentage of employment of people from the North who are aboriginal in these two companies in northern Saskatchewan. The next question would be in relation to service provision or product goods provision on a contracted basis from the North and aboriginal communities. The third question is going to relate to Key Lake and what happened in January of 2007 as alleged by Mr. Simpson when there was apparently a CNSC hearing and the question was whether their high standards being exercised in the Cominco, Coneco site. Those are really the three questions that I'd like to get an understanding of from the aboriginal people.

MR. WOLVERINE: Yeah, as far as the percentage of people working it's 50/50. Or maybe it's 53 percent northerners and 47 percent southerners. All the northern people are aboriginal that's working at the mine sites.

Now as far as the other question, it's, I don't think I was there for that meeting, the one that he's talking about. When were you talking about, sir?

MS. HUTCHINSON: That's when you had your knee surgery.

MR. WOLVERINE: Oh.

UNIDENTIFIED MALE SPEAKER: Contracted services.

MR. WOLVERINE: Yeah, I'm sorry. I wasn't there. And I wasn't informed yet because I had knee surgery at that time. So I cannot answer that question. Maybe Mervin could. Like, he's working as well at the mine. So we were both absent at that time. I'm sorry.

We can't provide you an answer with that one.

What was the third question again?

UNIDENTIFIED MALE SPEAKER: It was about Key Lake and there was a CNSC hearing allegedly held sometime in January of 2007 about there being walls of waste pits were slumping, mill effluents were escaping downstream, all those kind of things were alleged in Mr. Simpson's submission. And I'm just wondering whether or not you're satisfied with what was the decision of the CNSC hearing process.

MS. HUTCHINSON: Actually, Norman was slated to participate in that CNSC hearing and unfortunately he had to go for knee surgery that day. So I can, if you don't mind, I'll provide you the update of work that was done by Jim Lafleur, our representative from Beauval. The issue that Mr. Simpson referred to was elevated levels of selenium and molybdenum in mill waste water that was being discharged. We held a workshop of the EQC up at Key Lake and this is a good example where we had access to a number of specialists. So for instance, Dr. Patsy Thompson from the CNSC in Ottawa was made available to us. Peter Courtney, Fred's colleague from the CNSC was there. An expert from Environment Canada was there, as well as personnel from Cameco and Saskatchewan Environment. We actually went through the whole, what the issue had been identified as, where the issue actually occurred, and we did a visual inspection of the entire site that day. Subsequent to that, Dr. James Irving, who is a health specialist that we work with frequently out of La Ronge, came in and had a meeting with Norman and went through the entire selenium issue and the risk to human health that could occur or not occur as a result of that.

So does that help answer your question? We were aware of it, yes, and we had a number of experts that came and addressed the group on it, yes.

Yes?

MR. BOYD: Adrian Boyd with Nunavut Planning Commission. In the Northwest Territories with the diamond mines they've set up independent monitoring agencies. And these agencies implement the recommendations that come from the environmental assessment. Does your group provide a similar function where they're operating independently and they're reviewing and researching to make sure that the conditions of environmental assessments are being implemented and carried out? How do you guys compare to what's happening in the Northwest Territories?

MS. HUTCHINSON: Actually, how that, I'm familiar with how Diavik has their independent monitoring and that's more similar to the Athabasca working group that Jerry mentioned earlier. We are involved in not physically involved in, but we are involved or receive the results of CNSC, Saskatchewan Environment, and industry results from sampling programs. So there's three already going on. There's a midfield, what's referred to as a midfield cumulative effects monitoring program that we are involved in and community students actually assist in when we go to the midfield sampling. And then there's some of the far field sampling that's actually carried out in the Athabasca communities through the Athabasca working group.

MR. COOK: Good afternoon. I don't have a question, but I maybe assist you. My name is Harry Cook. I'm a board of director of Cameco. I'm also a former chief of La

Ronge. Just in terms of Cameco alone, the participation of northern people, aboriginal and northern people, 60 percent plus are employed in northern Saskatchewan in the mines. Just the three companies that get (inaudible) trucking, catering and environmental. In the past 25 years we've done $350 million of contracting and that's only Kitsaki. I can imagine with other companies of northern identity have a tremendous impact. Thank you.

MS. HUTCHINSON: If there are no further questions I'm going to briefly outline another program that was introduced by Dr. Don Lee and was also a recommendation of the joint federal-provincial panel, which is referred to as the Community Vitality Monitoring Partnership Program. The intent of the program is to monitor the vitality of communities as they may be affected by the uranium industry. Now, while Dr. Don and his group of experts came up with a very noble thing to do, those of us left to implement it have found it a pretty challenging task in many instances.

Some of the programs that, or research projects that we've undertaken are out migration studies which looked at the effect of employment on residents of the northern communities and whether they stayed in the community or whether they chose to move out to a southern locale once they were employed.

Another research project we engaged in was a healthy food basket and food costs across northern Saskatchewan. Starting in 2002 we've held youth workshops and gotten the youth feedback on what they believe are some of the concerns or challenges within their community that should be addressed. So we've had three of those workshop focussing on things like family, health, justice, recreation, education, leadership, and the most recent one held about a year ago was youth leadership program where we tried to develop leadership skills in youth from northern Saskatchewan.

Our proposed project for the coming fall is to identify some of the challenges to post-secondary education for residents in remote communities. So those are the types of things that are covered off by the community vitality initiative. Unfortunately I didn't bring any of those reports with me. I have a stack of business cards that I'll leave on the back table so if you're interested in information on those topics I can make that available to you.

Thank you very much for your time.

---Applause

FACILITATOR: Thank you. Thanks, Betty. Our next speakers here are Philip from the co-chair of the Baker Lake Community Liaison Committee.

Function and Composite of Baker Lake Community Liaison Committee, Key Issues to Date, Future Challenges

MR. PUTUMIRAQTUQ: Is Barry around here? (Begin Translation) Good afternoon. Welcome to Baker Lake. Philip Putumiraqtuq is my name of Baker Lake. I'm a by-law officer and also a coach here, a chair of the school board, education board, and also of Kiggavik Community Liaison Committee.

Amongst the Kiggavik committee we started this 2000 when AREVA established their committee. We appointed committee members when AREVA came here in 2000. They

requested for a committee, that we should have a committee, a Kiggavik Community Liaison Committee. And AREVA, so we went ahead with AREVA consultations. When we were appointed as a committee members. First of all, when we became committee in December 4, 2006. And then amongst us the committee members we appointed new members to represent of the HTO hunters and trappers association, and elders, youth. There's youth and also education committee. They join us along with the other members that represent each and also the health group is health committee is included, justice committee, business committee, people from businesses to represent each organization in our town. And also we appointed people from Aberdeen Lake people. We invited them. We invited various people to attend our meeting. And also KIA, someone to represent KIA. We were open to invitation from each organization. I'm a co-chair myself. AREVA. I'm a chair of AREVA since I was elected this past fall when they established our committee.

This is going very well. And since we became a member, and that's going very well. And we're learning also about the uranium. This has been going on in the Kiggavik. And there's going to be, and there's going to be cabins erected outside and also archaeological sites to preserve our archaeological sites to protect our environment.

The committee members, we also include Inuit (inaudible) traditional knowledge. That's included. And if this all was going to be included, sorry. Inuit traditional knowledge we also discuss if there's going to be a road built. This is being planned for some time. We're involved.

When we hold our committees meetings we always open to anyone. And the some of the committee members went down to, will be going down to Saskatchewan to visit. This past spring some of us went down to Toronto to attend a mining symposium and we had an opportunity to go to Iqaluit also. And also we appointed various people from each organization to be involved. We also seek that would be useful to us. We keep informed our community members in Baker Lake. And we are planning on to host some more workshops in regards to uranium minings. Thank you. (End Translation)

FACILITATOR: Any questions for Philip about the committee and its operations?

MR. QUASA: (Begin Translation) My name is Paul Quasa (sp). Where do you get your funding from to run your committee? (End Translation)

MR. PUTUMIRAQTUQ: (Begin Translation) AREVA, they provide funding for us. And also initially they were dedicated to work closely with the hamlet council. (End Translation)

JOAN: (Begin Translation) I have a question here. Since you've been running your committee you get your funding from AREVA. Wouldn't it be a better idea if you were to get better funding and also there might be a conflict between when you're funded by AREVA and also aren't there going to be any conflict if you were to disagree with some of their operations? (End Translation)

MR. PUTUMIRAQTUQ: (Begin Translation) I'm sorry, I didn't quite understand you. Your voice is so low. Would you please repeat your question? (End Translation)

JOAN: My question was, since your funding is coming directly from the mining industry, being AREVA, how does it work that you're speaking for the community and

their concerns? Do you feel sometimes uncomfortable if you have to question or if anyone in the community raises questions regard to, say, environmental issues and all that stuff? Can you turn around and, I don't know what the word is. I guess what I'm trying to say is, you're getting the funding directly from them, so how can you correct them? I think I make sense. Thanks.

MR. PUTUMIRAQTUQ: Thank you, Joan. (Begin Translation) If I understood your question correctly, when we have discussions amongst ourselves as committee members we do clarify with each other. (End Translation) William.

WILLIAM: (Begin Translation) In regards to our committee, it's been over three years or every three years we request for extra funding from hamlet council also if we're shortage of the funding. (End Translation)

UNIDENTIFIED MALE SPEAKER: (Begin Translation) (Inaudible) of Baker Lake. How do you as a committee members when you became a committee, how do you nominate or through KIA do you represent KIA also? (End Translation)

MR. PUTUMIRAQTUQ: (Begin Translation) So this past fall when we became committee members we met with hamlet council. And we work closely with other, also with other committee members from the community, so they're all representing each committee from in our town here. (End Translation)

UNIDENTIFIED MALE SPEAKER: (Begin Translation) Are you answering too, was the hamlet council nominated also? (End Translation)

MR. PUTUMIRAQTUQ: Had considered to have the community liaison committee. (Begin Translation) This is what AREVA initially requested for, before I became a member of this committee, that's how it started. When AREVA came up here. (End Translation)

FACILITATOR: Thanks very much, Philip. Thanks for your presentation.

—Applause

Just a couple announcements before the break. A local artist, Simon Tootoomee (sp), will be displaying his prints in the open area of the community hall here around 3:00 with very reasonable prices and ranging on the size of the print. So please make sure you take a look and support the local artists.

The other thing, and my apologies, I forgot to mention earlier there was a question on Soha Kneen's presentation about the resolution of the indigenous summit on uranium mining and use and there is a copy of that declaration now on the back table for those that are interested. So we'll see you back at 3:00.

—BREAK

COMMUNITY PREPARATION, ISSUES AND CHALLENGES

Employment and Business Opportunities

MR. ONYSKEVITCH: – corporations. We work in partnership with other companies, federal and provincial governments, and most importantly, First Nations and Metis agencies to ensure benefits of uranium mining flow to communities and are fairly

distributed among them.

Twenty-five years ago the northern strategy took shape through the Beyda Inquiry. A series of public hearings on uranium development as part of the environmental assessment of the Cluff Lake project. At that time the industry's activities in northern Saskatchewan were more or less driven by regulators.

Mining companies now recognize that maintaining safe and clean operations and acting in a socially responsible manner is in their own long-term interest. In order to continue mining the world's richest uranium deposits we need strong support from northern people.

In Dr. Lee's presentation this morning he stated this recommendation: employment and business opportunities must be made available to northerners. Employment is the greatest benefit we have to offer. Today most entry positions are filled with northerners. However, we need northerners as technicians, journeypersons, and professionals. Knowledge, experience and life skills developed through employment at our operations extend beyond the life of the mines. The journeyperson can find employment anywhere in Canada. Companies have adopted innovative policies to ensure that northerners are able to take advantage of employment opportunities while continuing to live in their communities and maintain traditional activities. Mine workers commute to the site by aircraft from their home communities and work on a week-in and week-out rotation. The companies also offer a clear path to a rewarding career in a global industry to those who choose that path.

But we also have challenges. K to 12 students must receive a quality education in order for them to meet the prerequisites in order to enter post-secondary training. And we would like to see that the graduates, our employees, see this more than just a job; that it's a career.

Contracting. To help build capacity in the North we work to build local businesses to support our operations and increase northern Saskatchewan's participation in the industry. Last year AREVA and Cameco purchased $250 million in goods and services from northern businesses ranging from trucking, expediting, catering, to earthworks. To the greatest extent possible, future developments such as at Cigar Lake and Midwest, it will be built and operated by northerners.

The challenges there, contractors are expected to provide quality work, meet time lines, and be competitive regarding price. Joint ventures can work.

For the 2006-2007 year there were roughly 40 courses offered through the multi-party training plan in approximately 15 locations throughout northern Saskatchewan. Courses ranging from developmental studies to exploration techs, underground mining, electrical and industrial mechanics trades training. In the fall of 2006 two new mining industry courses started: mine engineering technologist and chemical technologist. These courses are offered in La Ronge and require a Grade 12 to enter with a strong math-science component.

We're also working to develop northern businesses to support our operations and increase northern Saskatchewan's stake in the industry. Last year AREVA and Cameco purchased over $200 million in services from businesses with northern ownership.

Another panel recommendation, education is a key component. Without continuation of initiatives, such as the multi-party training plan, northerners will not be able to share in the opportunities offered by the uranium mining industry.

A few words about education and training. To ensure that northern people are able to take advantage of the opportunities we help people get the education and training they need. In 2007 we will contribute over $200,000 in scholarships and other support to youth education. Now, this support can range from the purchase of computers for schools to recognizing academic and best attendance awards. The primary focus of our education effort is to ensure people can get the necessary technical skills. We encourage students to take math and science courses in high school.

Assisted in the creation of the multi-party training agreement that involves all stakeholders, government, community, industry, and educational institution in developing and operating programs to provide training and jobs for northern people who want to enter the mining industry. Not training for the sake of training, but training for jobs. Cameco and AREVA have contributed $21.8 million to this initiative since it was established in 1992.

We're also faced with challenges there. Students must stay in school. They must take the math and science courses and enroll in post-secondary programs. Such as radiation and environmental techs, geological techs, chemical technicians, and apprenticeship programs, to name a few.

Radiation levels are monitored at all sites and the exposure of workers closely monitored. Workers wear devices that measure personal exposure continually. Data collected using this equipment is reported to both workers and regulatory agencies. Radiation exposure for employees and contractors has been a small fraction of the annual limit considered safe by regulators. Some issues and mitigation measures were presented yesterday by Mr. Chambers.

Finally, many of our efforts are focussed on youth. We travel to schools regularly to show students what the industry has to offer. Get them interested in the technical disciplines that will lead to rewarding careers. We provide opportunities for youth aged 18 and over to work at the mine as summer students, thereby gaining experience and finances to further their education. And we fund and organize youth workshops that deal with topics ranging from leadership to health, justice, and educational issues.

Northern affairs offices maintain close contact with communities across the North and in consultation with northerners identify and provide direct support for projects that will improve quality of life. We assisted in the development of a range of community projects, including health care facilities and recreational projects. In 2006, AREVA and Cameco provided $2.6 million to community projects and charitable organizations in northern communities.

Relationship with northern people is built on effective consultation. AREVA and Cameco have northern affairs offices based in La Ronge, Fond-du-lac, and Wollaston, with eight employees dedicated to building our relationship with northern communities. In addition to frequent communications through the northern office, community representatives travel to 12 key communities annually for community meetings to update people on industry developments and provide an opportunity for people to raise issues and

concerns in person.

We make these efforts because we need their support to sustain and grow our business. To earn it, Cameco and AREVA maintain high standards of environmental and safety performance, ensure that northern communities share in the wealth generated by the industry through employment and economic development, and consult with northern people to ensure that they are aware of developments in their region and get the assurance they need that the people and the land are respected. In the context of the recommendations of the joint panel discussed earlier by Dr. Lee, we believe that these efforts respond well to those directed at education, employment, and community vitality. Thank you.

---Applause

FACILITATOR: Thanks very much, Morris. We'll welcome up Harry Cook, La Ronge Indian Band.

Lac La Ronge Indian Band Traditional Policy on Traditional Lands

MR. COOK: Good afternoon. I'm a Cree person and I want to say a few languages in my own language. I respect deeply all the languages of native people in this country. I'm a Cree speaker and I realize the people over here have their own language and culture as well.

We the Lac La Ronge Indian Band Cree also developed the policy on our traditional lands. And what we see are these.

Lac La Ronge Indian Band traditional policy on our traditional lands. We believe that a traditional lands and resources contain the heritage from our ancestors through to the people up here. Our ancestors must maintain a legacy for our youth and children for the future. I understand what you people are talking about being concerned about environment and developments. But I believe also as a developer that both of those can be met hand in hand, but we have to do it carefully and I encourage the northern people up here to look at all the issues that are talked about today as constructive. All of them have a place and we have to consider everything before we make any final decisions. So that's just the encouragement that I would like to give the people here.

Again, tansey (sp), that means hello in our language Cree. It is a great honour for me to be here today representing both the Lac La Ronge Indian Band Cree and the Aboriginal Peoples of Saskatchewan, the Metis people, and also the northern people that live, the non-aboriginal people in our province. Today I would like to present some background about myself and the communities that I represent. I will also talk about a company that I'm extremely proud of, Kitsaki Management Ltd. There are many reasons to be proud of this company that is one of Canada's best examples of operational economic development in this country. It also represents the strong argument for this workshop as it highlights a model relationship between the group of aboriginal communities in Canada, the mining industry with one company in particular – Cameco Corporation. I'm a little bit biassed in that for being a board of director for many years.

I want to talk a little bit about where we're succeeding as First Nations people in Canada on the journey we're still navigating. Finally, I will explore some of the challenges we face as aboriginal people together with the dominant society that we must and continue

to live in harmony with in this country.

Today I'd like to present some background about myself and the communities that I represent. I will also talk about a company that I'm extremely proud. It's very important that we have a dialogue completely at community meetings, individuals and coffee talk regarding how it is that Canada will go forward with a multicultural that we have in this country.

Let me start with some background about myself and the Lac La Ronge Indian Band. I was born and raised on a trap line in northern Saskatchewan near a small community called Stanley Mission. Many miles from the nearest road. It was there I learned the history of my people, the tradition and culture of the Woodland Cree, which is very valued by myself and the people of my tribe.

My ancestral home is one of the great rivers of North America called the Churchill River. As you can see from this photograph, it is beautiful and a wondrous place of ours. When I came up here I found this part of the world very fantastic as well. You people have a wonderful land here as well. Even if you don't have the trees, it's still a wonderful place to live and I'm sure you enjoy it.

(Laughter)

I was successful as a tradesman in the city where I quickly learned the non-Indian way of life. My family and my traditional homeland was very powerful, so I returned to the North after working in Regina for about 13 years. I'm a journeyman welder by trade. I made a wonderful living in Regina, my family and I, but I decided to come back home, to come back and enjoy my community, some of the areas that I visited where I grew up is very strong for me.

Native people in this country are very unique. We were never immigrants from other parts of the world. It's so critical for us to hold on to our languages because if we lose it it's completely lost. We will never go back to Europe or other parts of the world and retrieve it. So it's very unique that we have our native languages and we have to treasure them and our culture at all times.

I am a living example of an aboriginal Canadian that has learned to live comfortably in two distinct realities. Unfortunately, there might be a few of that, but the challenges are many, but yet individuals will excel in the dreams that they have. There were few of my generation were able to make this transition successfully. It is important to remember that it was during my life time – I'm 64 years old – that some of the government agents, particularly Indian Affairs, permitted our people from travelling and getting employment and other things within our culture. It was a very depressing time for many native people culture, you go back 50 years. Today it's much more changed. Dominant people are much more flexible. They're more open and they want to work with us. And we too want to do the same thing.

As I mentioned earlier, the Lac La Ronge Indian Band is part of the Woodland Cree and is located in northern Saskatchewan. We're a multi-community band. We have 8,500 members of our tribe. All of us speak Cree. A lot of our kids are starting to lose their language. We're trying to incorporate it back into school. This way we do not lose the culture for the future generations.

My band is well developed from a government standpoint. We now manage to administer all of our critical services such as education, including post-secondary education, economic development, housing, community health, child and family services, infrastructure. We virtually run all the government programs and transfers as a band because we knew that governance is so critical. You set up your own governance system within your band, economic development is completely severed from the band government. This shows politicians from our band do not interfere in the management decisions of so many of the businesses that we have developed. So I think it is the lessons here by some people to learn.

Kitsaki Management, I am proud to say that we also have one of the most successful Indian-owned companies in Canada. Kitsaki Management Ltd. is a collection of 15 different enterprises with annual revenues of $64 million. Forty percent of these revenues are derived from our business relations with the mining industry today in Saskatchewan.

There are two aspects of development of Kitsaki that are particularly noteworthy. The first is that it was born out of the relationship with the mining industry, in particular Cameco cooperation, a mining company in northern Saskatchewan. I also have to compliment Cogema and also AREVA today. They too are very valued mining companies in our province.

The second noteworthy aspect was Kitsaki was being a transition for my people from being largely dependent on the Canadian society such as government. We wanted to create independent for our people financially whereby we can create our own opportunities, make our own money, make our own decisions. It's very true that people have to be accountable. I completely understand with that. When you have government transfers there are very rigid rules. However, when an economic development you can make good business decisions because it's yours to determine which direction and how fast you want to go.

Through Kitsaki we've created hundreds of jobs for our band members and motivated hundreds more to pursue educational opportunities that leads to these opportunities. Indeed, even the name Kitsaki is a statement of our intent. It means 'take off your coat' in Cree, indicating it's time to get down to work.

But all of us have to remember that good work ethic is something that's very valuable in our time. Sometimes in many meetings that I aspired to as First Nations leader for 18 years people used to joke about Indian time, where people come in late. I don't support that. I believe all people have a commitment. If you represent a person, if you work on a job, you gotta be there on time to start producing what it is that you had intended to be, if you're elected or part of the work force.

Kitsaki is a holding company, which means business investments on behalf of band members. Its goals are simple: to make profitable investments in northern economy as a way to create an economic base for the band; and to create job opportunities for our band members, other aboriginal people, and other Canadians as well who wish to be participants within our developments.

Allow me to elaborate briefly on two enterprises in our stable of companies. The two that I want to highlight are the root of our success and are examples of a high-quality

relationship we have with the mining industry. Northern Shores Trucking was our first major aboriginal success. In many aspects it's one of Canada's best examples of a successful aboriginal enterprise. It started out as a small trucking company. Through the encouragement of Cameco, we joined forces with one of Canada's largest trucking companies, Trimack (sp) Transportation, and we created Northern Resource Trucking, NRT. In 1992 we took the next step in our growth plan. Again with Cameco's guidance and support, Cameco agreed to sign a six-year exclusive contract for all its hauling. In return NRT agreed to restructure and extend opportunities to nine others: Cree, Dene, and Metis.

Native people in this country have always had a sharing spirit. That's why we let Europeans settle in harmony in North America all over. We're a very open type of people as aboriginal people. We welcome people. As long as they agree to work with us we will always have that approach. And that speaks for all the tribes in the country. I've been through this country, United States, and different places; it's still the same. The spirit is still there. Open-heartedness, friendliness is there. We want to work with you, welcome to my home. All those things are a wonderful culture to be part of an aboriginal person.

Athabasca Catering is our second largest mine services enterprise. It provides food and janitorial services to all of the major mines in northern Saskatchewan, Cameco and also Cogema. It is 100 percent aboriginal owned with Kitsaki as the managing partner and four other aboriginal partners. Athabasca Catering has served millions of nutritious meals to miners and paid millions of dollars in salaries to its employees and dividends to its share holders.

Today Kitsaki's family of enterprises include other businesses, including forestry, environmental services, tourism, insurance, natural foods. I've done a lot of marketing of organic products all over the world: organic wild rice, mushrooms, and different things. We also own a series of hotels, some Westwind Aviation, we own a golf course, we own some casinos. So we diverse our economic portfolio. This way, if industry happens to have a drop such as in forestry we will still survive with the other entities that we have by diversification.

I'd like to change a bit topic in regards to indigenous people and development. As anti-development forces sometimes would have you believe that aboriginal people just want to be left alone and are being forced to work in the mines. I can assure you, I travelled all over this world, that it is simply not true in northern Saskatchewan. In my many years of engaging indigenous people from all over the world I believe it's not the case on a global basis as well. In my experience, indigenous people very much want to be part of the development. All we ask in return is our support that development be carried out in an inclusive, culturally sensitive, environmental, and socially appropriate and responsible way. That's all we ask. And I think a lot of people here can kind of relate to that particular philosophy.

This is not too much to ask. In my opinion, Cameco, as an example of that company that has taken this approach and delivered on its commitments. I can see also with the witnesses with Cogema and AREVA, they're wonderful companies that operate in our province and anybody that's worked for those two companies can tell you that those are the facts and it's true.

Since I have more or less introduced Cameco, let me tell you a bit more about this company that I've come to know very well. I have come to know them well because I am also a member of the board of directors of the Cameco Corporation going on 15 years. The very fact that I was asked to represent the interests of aboriginal people as the director of one of Canada's top publicly traded companies is a testament to the quality of the relationship between this company and aboriginal northerners in Saskatchewan. Today Cameco operations have been successfully woven into the social, political, cultural fabric of more than 20 northern communities where many of the employees reside today.

This leads me to final discussion point today. Despite this positive success in northern Saskatchewan, as aboriginal people we still face enormous challenges. I've been a leader for 18 years within my community as chief. I also know some of the things that we need to characterize some of the hope and optimism. One of the very occasions is education. I've always valued education at all levels because to have knowledge, to have understand, to have skills is very critical in our society today. Whether you're father, you're mother, whether you're part of the workforce, or part of the committee. Education to comprehend any information is too valuable today and we have our young people to become well educated it only enhances the ability for them to get better employment, better understanding of the issues that are tabled, at any session, at any forum. It's absolutely critical that we native people encourage our grandkids, our children to stay in school longer, get a quality education, go to post-secondary, get other valued education as much as you can to be more independent in our society that's rapidly changing our traditional way of life as Indian people.

First of all, we need to understand that not all employers will be as inclined and committed to open doors as Cameco and maybe Cogema has. So we need to compete for some of the opportunities and they will be discouraged to do what is that you need to do to make a better standard of living for your people in any community, whether in Saskatchewan or up here in Nunavut.

Northern Saskatchewan covers an area of some 320,000 square kilometres and is populated by about 40,000 people. I know that person earlier will challenge me. He was saying 30,000, but I'm counting a little more because I think we have such a high growth of population, so I put in those extra couple of thousand. Eighty percent of the population in Saskatchewan are aboriginal ancestry made up of three aboriginal cultural groups. The two are the Cree, the Dene people, and third are the Metis people. Demographically the aboriginal people are younger and growing faster, unfortunately less well educated at times unless employed, mainly because of that education has not been completed.

Despite the opportunities created by the mining industry, the unemployment rate is still three times higher than our province with a rate hitting as high as 60 to 70 percent. The rate of illiteracy is at least double the provincial rate and, even with much more improved access to primary and secondary education in the North today, about 75 percent of our children leave school before completing Grade 12. That's a tremendous challenge for native people to encourage our people to make sure that they complete their education formally right to Grade 12 and even beyond. Too often, those that do not graduate from high school in the North are poorly equipped academically and socially to

survive in a very competitive post-secondary employment or other opportunities that might exists.

I'm skipping through some of these steps here mainly because of time.

A few short decades ago most northern families lived a very traditional subsistence lifestyle. A lifestyle that has been eroded to such an extent by poor economics, anti-fur lobbyists, rapid population growth, and very few aboriginal people continue to practice these activities today. I'm 64 years old and many of our people don't go out on the trap line anymore. And younger people don't want to pursue that lifestyle. So we have to think more of times today and doing it in the future that education of our people and having a little different lifestyle in how it is that you derive a living is more important to many of our youth today, even though culture is still very much a priority for all our communities.

Many of our youth have different expectations. They expect to have opportunity, yet to a large degree our growing into childhood without understanding what that means and realize some of those opportunities.

Today in my band we have more than 1700 students enrolled in our public school systems and about 200 post-secondary studies in various fields. I think it's very important at this time that we also prepare our youth to meet society's needs for scientists, engineers, technicians, tradespeople. I can say that I'm proud that we have three student graduates from the university with engineering degrees. And those three people are Taven (sp) Roberts, Sharon Gauthier, and James Little. Again, those role models are very critical to the young people in our communities that, yes, we do have engineers at that level of education and again, those opportunities and wages are probably more enhanced because of the degrees that they have achieved.

In closing, I would like to remind everyone, although that Kitsaki and La Ronge band enjoy success today as a result of our strong business partnerships, such as was not the case for many people in this country, we have come a long way and we have a long way to go yet. I am personally very confident that we can chart our course with a destination in mind that achieves the right balance between our cultural traditions and full economic participation. I am also confident that the relationship we have built with the mining industry will continue and that it will continue with the respect and openness and that has (inaudible) itself so far between the parties.

As I have explained, our relationship with Cameco has been a special one, one that I'm personally very proud of both as a former chief and as also a board of director of Cameco. Together we have developed the common goal of sustainable development for northern Saskatchewan. Today we have developed a model partnership that has become an example for the world to look in on.

I know that time is very limited for us here today. I do have other information, but I truly thank you for the short period of time and also to have been invited to your community to see (inaudible). I respect all of you that are here who are native, Inuit, and non-native; the people that are here. I believe it assures me that Canada has proven to the world that all denominations of people can work together for the good of mankind.

God bless you all. Thank you for this opportunity to say a few words. If you need to call

me at some point in time, I'm semi-retired, I could be available to come and work with some of the community here, how it is economic development that get a full hold and maybe fully participate in the mining industry. It has a future. Thank you all.

---Applause

FACILITATOR: Thanks very much, Harry and Morris. And thanks to Peter Mayotte who gave up a few minutes of his time to carry on. I'd like to welcome up our next speaker, Moses Kayuryuk, the economic development officer for Baker Lake.

Baker Lake's Recent Experience With Mineral Exploration and Development

MR. KAYURYUK: (Begin Translation) Good afternoon, ladies and gentlemen. (End Translation) Good afternoon, everyone. Welcome to Baker Lake. I'm going to make this very quick and it's going to give you an overview of what's happening in Baker Lake on recent experience with mining and exploration.

First of all it provides training and employment towards the income support and employment insurance recipients. It also provided training towards local fire fighters and rangers. I will speak about that in a minute. And it also provides training towards the people of Kivalliq from the Kivalliq region.

The first stage of training was ten weeks in Morrisburg, Ontario, for heavy equipment operator training course. I believe the third group is in the process right now from the Kivalliq region and it has been sponsored by Kivalliq partners in development and Department of Education. A joint effort between the designated Inuit organizations and the GN. They also provided training to local fire fighters and rangers in contaminant oil spill prevention trained from NTCL.

From training it leads to employment. It generates income, pays off bills and accounts, purchase large, they are able to purchase large items as snowmobiles and ATV's. Store managers and customers alike are satisfied because the customers are paying off their bills and accounts.

I'll speak a bit about indirect benefits from mining activities. As you know, last week and this week it's been difficult for people to find accommodation. So there's no vacancies and it keeps the hotel staff busy, which pays off their O and M, like power bills and wages. And it also generates economy within the community. It creates more work for expediting services. Maintaining employment for private chapter small businesses and small businesses are having a hard time keeping large items in stock and it really maintains employment for the expediting services. It also provides business opportunities for either start-up or expansion.

When it comes to social impacts there has been no increase in violence or crime, at least not from the mine employees. There's a steady number of clients for drug and alcohol counsellors, so there's no increase there. Why? There's limited consumption of ordering alcohol and there is no, there is zero tolerance for alcohol and drugs at the mine sites.

At the community perspective, there's a high morale for employer employee relationship at the mine sites. So the hamlet councils and local people are very impressed with the transition. Transition from income support and employment insurance clients to full time

employment. Earning almost five times higher than the previous assistance they received. And it's an uplifting experience. Family members who has someone employed at the site they have a better quality of life.

Getting back to training and employment. Training and employment opportunities will continue to thrive in the Kivalliq region.

---Applause

FACILITATOR: Thanks very much, Moses. Now I'll call on our next speaker, Rene Rediron from northern Saskatchewan speak on business perspectives.

Business Perspectives

MR. REDIRON: Yeah, good afternoon. My name is Rene Rediron. I'm from a community called Pine House Lakes in northern Saskatchewan. First I'd like to thank the people that made it possible for me to come and share my experiences with the uranium mines in northern Saskatchewan and also for the people of Baker Lake taking the time, few minutes that I have to listen to what I have to say. I have to apologize. I'm not into the stage where I got a slide presentation and what not. Maybe I'll come to that yet. Anyway, the way I'm going to be talking to you will come directly from my heart and that's all I can offer. And later on if a person has a question or two I'll try my best to share some of my experiences.

Of course, like Harry said, basically all of us, I'm 54 years old. I was born in a community where it was only trapping and fishing. That's all I got to knew. And finally when we lived out on the small island and we moved back to a little community and started school and like most of the northern kids at that time, no high school. We quit an early age to go trapping and fishing. Because it, looking at Baker Lake, I remember when I was a young boy that's basically how I lived. No road, no nothing. Just access to, with an aircraft. As I grew into my teens all I did was commercial fish. I quit school an early age and I've learned to work with my people through commercial fishing. Perhaps maybe you can call it a small little bit, a small business.

I've welcomed the road when it came to my community in 1978, not knowing that the road had, somebody had plans for it. I kind of wondered why they would build a road in no man's land like Pine House. When the first time the industry came into my community I had very little interest. I was more interested in fishing. I guess we all look at it when southerners come into our community it's the same old thing. Promises, promises. Because we're so used to the government coming into our communities and promising us this and that and it never actually comes to reality.

I started following the industry as the mines started up in Key Lake and whatnot. I started following the roads they were making. That opened the doors for my fishing. I used them roads and of course checked them very carefully because I'd heard horror stories about what they were going to do to our land and I was very concerned about that. And I was kind of a little bit embarrassed because I was throwing more 45-gallon drums into the lakes than they did. So I don't know. It kind of a question where you have to see for yourself to believe it, I guess. I worked with them and they helped me a lot in, with mechanical and whatnot when I broke down way up north. And of course communication with the phones they had.

So when finally I approached them, fishing became so hard because everybody wanted part of the resource, which is tourists. Trapping of course was greatly damaged by the anti-fur lobbyists. So that was down the drain. I approached them and I didn't have nothing to offer really because I'm just a fisherman. All I had to offer was good hard working people that work along side of me. They gave me an opportunity and I was scared. I was really scared. But I've always, you know, in the back of my mind said we'll work hard and we'll prove to these guys that we're hard workers as aboriginal people. And that's exactly what we did.

I was very surprised to see how open these industry was. They didn't hold our hand, I should say. Or like I think Morris said, you have to be competitive, do your job on time. That's all they ask. And we gave them that. I picked the people that were people like myself. That quit school at an early age. That couldn't make it to Grade 12. I picked that kind of a people. With their hard work today I'm proud to say that I have probably 30 or 40 people that pass through my company and now have long-term jobs with the mining industry itself, high-paying jobs. And I'm proud to say I trained these people with my own money. Not with any government help or anybody. I trained them with my own money because the mining industry paid me a fair dollar and they understand, like a lot of these people, we trained with our own language and our own equipment. And now they're very, you know, one of the top workers at the mining. And not only from my community. Like, I got people working right from straight across northern Saskatchewan. And that, I am happy, although some of them I was pretty sad to see them go because they are such terrific workers. But the goal is to find a job for these people with small education.

The other reminder I got today is when I seen Don Lee here. He must have seen the pleading eyes when I sat in front of him so many years ago when they came to the hearings just like this. And when he said that he wanted to see opportunities, business opportunities for northerners, that was music to my ears. And I'm sure Mr. Lee is proud today to see me sitting representing myself as a business person.

And there's so much more opportunities that are going to come about in the industry and I have in my company a probably around anywhere from about 50 maybe sometimes up to 100 people that work for me. Ninety-five percent all the time these are aboriginal people. And we care about our land. We do. We don't really care only about the money. We still go hunting today. We still go fishing today. We never forgot our traditional way of life. It's there. It hasn't been destroyed yet. And the uranium mines have been around for getting on to 30 years in northern Saskatchewan. We still drink water from the lake when we go out camping.

So I'm telling you people the decision is yours. The choice is yours to make. My children, I got five kids, four of them are grown up. I've tried to teach them the traditional ways. Unfortunately they're not interested. I don't know how long we can keep our children from not wanting to pursue better lives. All I know is that we got technology here now that shows the young people in particular what's out there in the south, the opportunities that they can get their hands on. So the decision has to be made by us people how we want to see our children in the future live. Do we want a better lifestyle for them? I think we have to be wise to make a wise decision because there's so much potential in where we live, in the land we lived in. If we're good negotiators, work closely

with the industry – which I can honestly tell you with a straight face are fair people – I think in the future you will find, you know, and your children will remember you for making the right decision for them.

I know we never want to stray from our traditional values, but we'll have to think about our children and our grandchildren to try and hopefully have a better lifestyle for them. And if we work honestly and be good negotiators we can go a long ways and still maintain our lifestyle. It's proven to us people in northern Saskatchewan. It's changed our lifestyle to the better. And I work for myself. I don't work for, I don't get a pay cheque from the mining company. Only when I do contract work. So I'm telling you this as an individual. I rarely ever go around these people, but again, to show my appreciation for the opportunity that they give me I do go in places to make a presentation because I want to tell my people, the aboriginal people, there's an opportunity here. Take advantage of it. I thank you very much for listening to me.

---Applause

FACILITATOR: Thanks very much, Rene. Clearly you didn't need the slides to get your point across. Any questions for Rene before he sits down? Thanks again. Please feel free to talk to him after the presentation.

I'd like to welcome up Peter Mayotte of the Northlands College.

Post–secondary Training for Northern Residents for Uranium Mining Jobs

MR. MAYOTTE: I just have to get the lay of the land here. Hey. I think I can do that. I know that was a little challenging for Morris, but I think I can figure that out. It just can't be helped.

Well, I too would like to thank everybody for the opportunity to be here. And hopefully I can present something here that will be of value to you. Some of what I'm going to say you've heard before. Some of it's worth repeating. Some I'm just going to repeat anyways.

Chief Harry talked about challenges here a while ago and I must say I feel that I've been given a very challenging role to be the last on the list of a long list of very experienced and expert presenters, all of whom have presented extremely valuable insights and information. I will do my best to do the same. In so doing I'll start off with something quite different here.

Look at that. Another map of northern Saskatchewan. How many of those have we seen so far today. I'm going to put a little bit of a different spin on this, but first of all just on the first slide, that I'm director for the central and Athabasca regions of Northlands College, which includes the Athabasca Basin where the uranium mines are located. The multi-party training plan that was referred to is a training strategy that is very consistent with the northern strategy that Morris was talking about and it's for all mining operations, not just uranium mining operations. In fact it rolls in some oil and gas as well. So it's broader than just the uranium, but the uranium mines are an integral, long-standing partner. You're going to hear the word partner a fair bit here. The partnerships with

industry are so crucial to what we're doing.

I'm not a nuclear expert. I'm not a geologist. I'm not a chemist. I'm really not any '-ist' other than the fact that I am an optimist and I feel that through forums like this when people are given a broad spectrum of information to make informed choices on, that the right choices will be made for you as an individual, for your communities, your families, and your region. And I want to speak a little bit about the Saskatchewan experience. Again, you've heard that. The Saskatchewan experience with reference to training in cooperation with mining companies and a whole lot of other partners and what we've accomplished through that.

I also need to wet my whistle.

So just to make sure I'm on the right track here, I'm going to ask a few questions here first. Chief Harry also gave some information about northern Saskatchewan in terms of the population, the size of northern Saskatchewan. And incidentally, Northlands College area is the same area as the entire northern Saskatchewan, which represents darn close to half of Saskatchewan. And Chief Harry mentioned the issue around an income gap, educational gap, and an employment gap. So I'd like to ask the question of the folks up here whether that's similar to the challenges that you're facing. Is there an educational gap? Is there generally lower education or do you feel there's lower education in your region than there is in the rest of Canada, for example, on average? Lower income? And likely if there's lower income there's quite likely lower employment rates. Would that be true as well? So it's a good thing you answered that correctly otherwise I'd be done. And maybe that would be a good thing.

There are a lot of similarities to this area and northern Saskatchewan, although I too wonder what happened to all the trees. And several degrees of temperature, actually, seem to have disappeared between over the course of about three hours of flying. So we also have the rapidly growing population, a young population, which at the same time as it presents some challenges it also offers some huge opportunities as well. We hear about it every day. The shortages throughout the country in every occupational area you can name. And that should be one of the beauties of being one of those young people at this point in time is if you choose something you like to do there should be an opportunity. And when individuals, whether they happen to be young or not, should choose to try and become engaged in the mining industry, we do have a strategy called the multi-party training plan that I'll try and explain here with my time.

There is one more thing that I believe is very much in common between your territory and northern Saskatchewan and that is the strong belief of individuals, communities, and community leaders that a healthy, safe workplace for individuals and a healthy environment for communities and the region is of the utmost importance. I don't believe that's been compromised to our experience.

So, we may see some slight variations in figures thrown around here because we all collect our stats sort of from the same place, but depending on the day or the week you might get a little bit different. There's about 2,700 people employed in the mining industry in northern Saskatchewan. That might be off. That's the figures I have. It's a fair

chunk. And if you use the 1,300 as northerners that's pretty consistent with what's been said here before. Slightly above 50 percent. And the last bullets suggest that opportunities are expected to remain stable. From my perspective and from what I see, if you define stability as being around for a long time that's probably true, but they seem to be skyrocketing. The number of opportunities are just huge.

So the multi-party training plan that I'm talking about, speaking about, was shaped by – oops. Existing initiatives. There are surface lease agreements that were first established in the early '80's which are agreements between the government and the mining companies that established the rules, I guess, under which the mining company can occupy that land for what purposes and under what conditions as far as environmental protection and worker protection goes. Within those there's also human resource development agreements. And you folks may very well have something similar to this. Again, I'm just speaking of the Saskatchewan experience, but the human resource development agreement first came into place around the mid-80's and they speak to the same things that Morris was talking about in the northern strategy: Maximizing employment opportunities for northerners and particularly those that are in the immediate impact area as defined under the surface lease agreement. And also to promote, present and enable opportunities for northern businesses. And it presented a forum or foundation for industry, government, and training institutes, as well as First Nation and Metis aboriginal groups to work together on a strategy. A long-term strategy to take, move people forward in a direction that they as individuals had chosen to go.

There's also as part of this a Northern Labour Market Committee, and we could talk for a long time on that, but I'm not going to. The Northern Labour Market Committee is a large group that probably sometimes has as many people around the table as this meeting three times a year and in many respects it becomes an ongoing virtually guaranteed consultation session between all the stakeholders. And there's a whole range of sub-committees where the actual work happens. And the Mineral Sector Steering Committee is one of those.

And the Mineral Sector Steering Committee was established with that name early on in the '90's and was preceded by various groups with generally the same intent. One was the mine training coordinators group and so forth stemming back to the '80's and so forth. But the key to this is that the mining industry is front and central. In particular we have AREVA, we have Cameco, we also have Claude Resources and we're always open to more industry participation.

Northlands College is the primary training institute involved in the multi-party training plan. And we also have a pretty broad spectrum of representatives, both from provincial government, First Nations communities, Metis communities, and Apprenticeship and Trade Commission, and Northern Mines Monitoring Secretariat, which you just heard from Betty. Actually, it's really Northern Affairs, but she doesn't like to be called that.

So we have a pretty comprehensive group that meets generally about four times a year. And gee, it's amazing, but the goals of the Mineral Sector Steering Committee are pretty similar to the northern strategy and pretty darn close to the human resource development agreements and the surface lease agreements. And obviously that's done

intentionally. So there's a fair bit of backdrop to all of this activity and as a result a lot of commitment from levels of industry, levels of government, training agencies, student support groups. And I'm thinking that, I mean, it's always been considered to be a long-term strategy and we like to think of it as systematic, sometimes as more systematic than other times, but nonetheless it's long term having begun, and Morris pointed out, back in 1992. And we're now actually in our last year of the third five-year phase. It wasn't planned to have three five-year phases, but clearly the benefits were recognized during the first years and new agreements were negotiated. And likewise after the second five years. And here we are coming close to 15 years. And unless I miss my guess we'll be negotiating again because as much as we have done collectively with all the partners there's a lot more yet to do. The opportunity continues, the challenge continues, and quite likely the multi-party training plan will continue as well.

Now, I'm not trying to suggest that before there was a multi-party training plan there was no training. There was. The establishment of the human resource development agreements and ultimately the multi-party training plan was a recognition I think by everybody that there were tremendous challenges, tremendous opportunities and if any of those parties had to follow tradition, which is to say government saying well, that's industry's job. Or industry saying that's the training institute's job. That likely is not or would not have moved forward. So the establishment of this strategy was the recognition that the opportunities and the effort required to take advantage of those opportunities was such that it really needed a collective effort where everybody was pulling in the same direction with the same philosophy. And if it was just left on one group's plate it probably wouldn't move forward.

Now, at the end of each of the five-year plans there is an evaluation. Some of the evaluation completed. And at the end of the second five-year plan there were a number of recommendations that have directed us in the third phase, including training to higher skills levels. We're trying to move people into the university areas. We're trying to get more in-depth technical programs, both in terms of the increasing need for higher level skills of the industry. Not many are going lower tech. They tend to go higher tech and we want to establish northern people into those positions. So in the past we had a pretty consistent record of offering 12-month, 15-month technical programs. Now we're into 2- and 2.5-year technical programs. So it's for the benefit of the mining, but it's also for the benefit of the employee to try and position them in such a fashion where it doesn't matter what we train they still come in as an entry-level person, but their ability to move through the system is much better with the higher level training.

Retraining existing employees wherever possible, that's a great way to do it because mining isn't for everybody. The lifestyle is different than working 9:00 to 5:00 in an office somewhere. So when we see people that have the potential that already know the industry, it's awfully nice to be able to, there's a lower risk factor if we can engage them in further training because you're pretty sure that the investment is going to go back into that industry.

Business development. In this last five years we've spent considerable more energy and resources on some of the contractors who are northern businesses and will

continue to do that. And there's a fair chunk of change involved in this too. And if previous experience is any indicator, the 13.7 that is committed by all the partners over the five years will be exceeded. It's been exceeded in both of the previous five-year programs.

So I've just got a few slides here that give a bit of a flavour for the types of training that we're involved in. Geological technicians. The chemical laboratory technician is a program that we used to do as a one-year program. It's now a two-year program. Mill operators is a program that we don't do a whole lot anymore. Pretty much we may do some related stuff, we do train or are involved in training process operators, but here's the biggie. The radiation environmental monitoring. Of all the programs that have been offered since I've been around involved in this through the college, anyways, and that's going on 14 years, that's the most consistent program that we've offered. Just about every year that program is offered. Those are the folks that you heard various other presenters talking about previously that are working underground, working on the surface, collecting samples, and so forth. The participation rate in our programs would be about, well, I'll back up there a little bit. The participation in our programs is almost 100 percent northern. So those folks that are going through those programs are from the communities that are in the impact area. So that's one that continues to go on. The mine engineering is a new one and, of course, I see administrative support workers here. That covers a pretty wide range. It's not all truck drivers and hard hats out there. There's a wide range. Now, there's also a whole lot of opportunities in corporate offices and so forth that ranging from business administration to commerce to computer technicians. The list just goes on and on and that's something that needs to be demonstrated as well. Just what the range of possibilities are.

So again, the trades is another particularly challenging area because in the previous slide there was technicians where if somebody is qualified to get into the program, they take a program for a year, away they go. We need work for four to five years for these folks.

This refers to training for contractors, but quite honestly the line are really blurred. This could be done for the mining companies or the contractors. In particular, the prospector driller and the mineral exploration is an area that we've been training in more recently that, well, that's why we're here. You know as well as anybody the increased activity and we want to see that the residents of the area get the best opportunity possible for those opportunities and in order to try and accomplish that we're actually purchasing a diamond drill so that we actually have equipment to train on. It's in such high demand that we can't find the equipment. Likewise, we've purchased a heavy equipment operator simulator because again the demand is high, the cost of accessing equipment for training is increasingly difficult, as well.

So just a quick run down in terms of where we've been. You see that on the top there just about 3,000 academic upgrading seats. Now, this goes back – well, you can see phase one, two and three there. And the skill and technical training being considerably less, many of the folks that will have gone through the academia will go on to the technical. But as Morris mentioned, Chief Cook mentioned, it would sure be nice if

resources didn't have to be spent on upgrading people before they get into the technical stuff. It makes it that much more difficult to meet the time lines of industry as far as providing trained people when they need them. Because some of these people that are in the academic upgrading are going to have to be there for not six months but maybe six years before they're ready. And probably if they're walking up to the Arctic College building there, they're going to be walking right past a high school where they should have got it in the first place. So I can only reinforce what has been said before, the opportunities and the time it takes to get there just expands in direct proportion to the level of K to 12 education that you've reached and the content of that K to 12. We're not talking about general math and alternate subjects. We're talking about a full array of maths and sciences with standards up to snuff.

There it is again. Thirty-nine percent of the total enrolments and some of these are employees. We actually have workplace centres at three of the mines where some of it is upgrading, some of it is skill training, but ... one-quarter enrolled in academic upgrading. Plus the people at the workplace education programs, many of whom are dealing with literacy issues. Not all of them, but many of them.

This is just a quick graph here in terms of the areas where people have gone through. And I think again you'll see that just gives an idea of how much is invested in the basic education relative to the technical and skill and apprenticeship. And you can see here with the skill, as I mentioned, a 1- or a 1.5-year program or even a 2.5-year program, they're job ready at the end of it. The apprenticeship and trades is much more difficult and we're so reliant again on our industry partners to provide those opportunities for apprentices to move to journey status.

It was asked here before and maybe I'll just throw it in here, but I will say that that number there, 3,803, finished their course. That's not 3,803 people. It's probably 3,000 people because many are taking several levels, whether it's apprenticeship or basic education or whatever. But generally speaking the students enrolled represent, there's about 33 percent that are female, 67 percent male, 85 percent aboriginal, 15 percent non-aboriginal, and overall throughout all the programs we do, 91 percent are northern. And the only reason it's 91 percent is because the workplace education programs are at the site and they're open to everybody. It doesn't matter, northern, company employee, contract employee, they're open for everybody.

Okay, everybody wants to know about money and where it comes and who gives it. And it was asked here, what is the industry contribute to these efforts. Clearly, from start to finish, at this stage of the game up to now, anyways, or up to June 2006 the mining industry has contributed 54 percent of the overall cost. That includes Cameco, AREVA, and Claude Resources, who although an important player are a minor player in the whole thing. The rest is split between provincial agencies such as advanced education and federal agencies, which would be our First Nations and Metis funding partners.

Other benefits. We see 50 percent of northern employees currently working directly for mining companies have completed training under this program. Two things. That means that there's 44 percent that got into the work force without, either they went for training on their own effort without our help or they had the skills. And many of those that had

the skills probably didn't think they had. And you heard Rene's story. So don't downplay the experience and the skills that you have already. But in our case there is a strategy for those that need something to go on. And as far as other spinoffs, of all the people we've trained a fair number of them have gone and taken employment. Some people are trades people, technicians, and they're working for other companies. They may be working for their community. That's not bad news on our part, although the initiative is to provide mine employees. At the end of the day if they're employed and contributing that's fantastic. So fringe benefits, spin-off benefits, that's a pretty major one right there.

So I have five or 10? Okay. This is just a track here of the employment. The bottom is strictly northern. The middle dark blue is the contractor. And then other. The reason that I put this in here is that if, I'd like to just point out that if this graph went back here a few more years that northern contractor part gets really, really thin. So there is a steady increase and although the percentage hasn't gone up as the industry has ramped up we're keeping pace. And if the industry stabilizes our percentage goes up as well.

So this is just a quick look at the process that we go through and it's really not all that complicated, but it does take a fair bit of work. First of all we have to work with our industry partners and identify the employment need and when that need is going to happen. Figure out who the target group is. Primary target group. And then see whether there's people out there that are already having, that already have the skills. We have no interest in training people that already know how to do it. And if there's enough people that have the skills, there they go. Put them to work. If they don't then we'll work on either finding a program or developing a program that will fill those needs and then carry on with the logistics of program delivery, which include figuring out how much it cost, go back to our committee and see whether are we getting the best bang for our buck. If we are we go ahead, we recruit and deliver the program. And we do not generally deliver a program unless there are jobs that are clearly identified. There's market conditions and so forth that may come into how quickly people will get those jobs, but they're not on our list unless they're backed up by real jobs.

So just to wrap it up here, the partnership that we have, and you saw that earlier, it's fairly broad but it really requires very frank, honest, focussed discussion and there are issues that come up at the table. And they are resolved and we move ahead. Innovation. Well, if it ain't broke don't fix it, but if it's not working try something new and keep on going til you get it right. And keep at it. The level of commitment from my experience has been extremely high throughout my experience with the multi-party training plan. And if I was to throw a few more bullets in there I might suggest that you gotta have a pretty good supply at times of patience and persistence, which I guess is the same thing as commitment.

So there was one other, I've got about 30 seconds here, right? And there was one other thing that I wanted to mention here in terms of benefits. And I showed you that slide before with the contractors in the middle. If we go back to around 1991, the northern share, and this includes contractors and employees, the northern share of wages was about, by my figures, about 11 percent of the total money spent for services and employees. At this stage of the game up to a couple years ago, and that's what I've got

as far as the values go, it's a couple years ago, it's up to 47 percent. Now, I'm not going to suggest that the multi-party training plan is responsible for all of that, but I have to believe that the solid partnership and that commitment, persistence, and so forth, has definitely helped. And if you think about the dollars involved I think in that period of time there's about $2 billion that have been paid out for wages and contracts. And if you take going from 11 percent share to almost a 50 percent share, that's quite an increase. So with that I'll just finish it off here. Thank you very much.

---Applause

FACILITATOR: Thanks very much, Peter. Again, another day of excellent speakers providing a variety of perspectives on uranium mining exploration, training, etcetera. Just want to say a few things before closing announcements. As people know, tonight we've got the public session. We do have the sign up board in the lobby there. I think at this point we've got 17 people signed up for presentations. I'll be trying to manage that effectively in our two-hour time frame, 7:00 to 9:00. We've been able to keep to the agenda pretty well so far and I appreciate everyone's support with that. Tonight we'll have speakers limited to five minutes so that we can get through everyone in the two-hour period. Again, please make sure you're on time as we'll start at the top of the list and run through.

It's an opportunity for the residents of Baker Lake and the members, participants here from other communities to ask questions, raise their issues and concerns. Again remember, we're not at a decision-making forum at all. We're just sharing information and identifying issues and concerns related to uranium exploration and development.

If appropriate and we do have time we may ask for a response from resource people in the audience, but given that we've got 17 signed up already there may not be a lot of time for that. Again, we'll be giving five minutes per person and I really ask that people respect that. If they have their five minutes, if they go over that they're taking away time from somebody else. So really going to stress that again tonight.

We will only be taking people signed up on the list and we will, people are welcome to sign up until the presentations start. I'd like to ask before we close today, I've got a few more things to say, but the people in the first three rows of tables, if they could take their stuff, their books and stuff with them tonight we'd like to make that available for the people making presentations. We want you to come back for the session tonight, but if we could just ask you to move back when you do leave.

Tomorrow for everyone, we've gone through the formal speaking sessions. Tomorrow we're going to break into two groups and have an opportunity for many of those people who haven't had a chance to say anything to ask questions, raise concerns. They will become part of the record here today. We will be splitting up the resource people as evenly as possible so that we can try and have discussion on some of those issues. And they'll be brought back to the floor and put on the record as part of this workshop. Tomorrow morning we'll start off in this venue and we'll tell you which group you're in such. So we'll assemble here in the morning. But tonight we'll get started right at 7:00 and go till 9:00.

Finally, I'd just like to say once again thank you to all the speakers and to everyone for sticking to the time limits and the participants as well. Again, thanks to the support staff, Kathy and Hugh on the catering, our translators as always doing a great job.

---Applause

And Trevor with the sound. Thank you. And our AV technician Heidi. Thank you. Thanks very much and we'll see you all tonight.

Community Discussion of Presentations

FACILITATOR: – fairly tight time frame, 7:00 to 9:00 tonight. So I will, I'll just go over the process here. We'd really encourage people to come to the front tables. We've got a list of 17 or 18 people have signed up to either ask a question or raise an issue.

We, a couple procedures I'd like everyone to follow. We're to allow those people signed up to have their chance we're allocating five minutes per person. That will include your chance to make a statement or if you want to ask a question, if you can identify when you first start with your name, whether you're going to make a statement or ask a question. If it's a question, a very brief please. I'll direct it to one of the resource people here in the room for an answer.

I will be, unfortunately as we don't have a lot of time, I will be somewhat ruthless on the five-minute rule. So please respect that. If you go over your time it's just taking away someone else's opportunity. And again, we're not making any decisions. We're talking about uranium exploration and development in general, not any specific project. In the future, if applications are received, there will be other opportunities to discuss certain projects.

Again, five-minute rule. Please identify yourself into the microphone, and let me know if you're asking a question or making a statement. And after five minutes we'll move on to the next person.

I've got a list of people who have signed up or organizations that have signed up and we'll go through it in order. If the organization or person's not here we'll just move on to the next one.

That being said, we'll start off with the Baker Lake Concerned Citizens Committee. Who will be speaking on their behalf? Joan?

MS. SCOTTIE: Thank you. Baker Lake Concerned Citizens Committee. I'll be talking on behalf of our committee. There's eight members. I will do a presentation and then on some of it. One of our members, Hugh Icoe (sp), will be reading. We'll take turns. Thank you.

First of all I would like to welcome the Nunavut Planning Commission. And Nunavut Impact Review Board. And other IPG's. Thanks for coming to Baker Lake.

I would like to start with the history of Baker Lake Concerned Citizens Committee, Baker Lake, Nunavut. Baker Lake Concerned Citizens Committee, or BLCCC, was founded by me, Joan Scottie, in the late '80's. The Kiggavik open-pit uranium mining proposal.

During the Kiggavik open uranium mining proposal. It was formed and expanded to other Kivalliq communities under the name of Northern Anti-Uranium Coalition.

During the Kiggavik uranium proposal BLCCC received a small funding from Tunngavik Federation of Nunavut in order to administer translations, regards to people's concerns and questions.

Regards to Kiggavik open pit uranium mining proposal, the main concerns we heard and concluded were the safety and security of the tailings and the possible impact on our food chain. In their proposal, Kiggavik outlined that they would leave 50 million tonnes of radioactive waste on the land after 10 years of mining. We were very concerned about this. We were very concerned about this will threaten health of the people, environment and wildlife and our water system.

The question of one uranium mine being approved leading to unstoppable opening of an entire region of possible uranium mine, that was our other concern. We were very concerned that approval of Kiggavik open pit uranium mine open the doors forever to unlimited uranium mining in our hunting ground. We knew that there's a lot of uranium around in our land, some of it directly beneath the Beverly and Qamanirjuaq calving ground. If one open pit uranium mine is approved it will be politically impossible to prohibit others. We will completely loose control of our future.

The other concern was the moral issues, both nuclear power and nuclear weapons. There were other people who were concerned that noone can guarantee that uranium or byproducts will never be used in nuclear weapons. This was morally unacceptable to some people.

Where we are today. In early November 2006 we held an hour and a half phone-in show, radio phone-in show to find out what the people in the community want. Where do we stand? Do you feel we have to participate in decisions regards to uranium exploration? Do we have concerns? Do you want BLCCC reactivated like in the late '80's? Many elders and hunters and some younger generation wanted the BLCCC reactivated so ordinary people, the elders, hunters, and other concerned people of Baker Lake can voice their concern. They wanted BLCCC to be liaison between people and the decision makers to voice their concerns. And have BLCCC to forward their concerns and questions to appropriate organization.

Funding requests. On November 3, 2006, I wrote a letter to NTI and to KIA enclosing a funding request for one year for BLCCC to administer a small office as requested by callers, by the callers. I received a response from the president of NTI on January 26th, 2007, listing his reasons for rejecting our funding request.

FACILITATOR: One minute remaining, please.

MS. SCOTTIE: We have ... Ah, you got me confused. This is. I'm sorry. This is our community. We have to raise our concerns. Thank you. I'll read faster. Anyway, I received a letter from NTI on January 26th, 2007, listing his reasons for rejecting our funding request: (a) we already have KIA, elected KIA representative we can report to; (b) we have a community liaison officer and Community Beneficiaries Committee, CBC,

which advises KIA on matters concerning the management of land within the community areas of interest.

Where we are presently after receiving a letter from NTI I held a short radio announcement to get a direction from concerned people what next steps we should take. It was felt that we should go ahead and reactive BLCCC. Eight members were elected in late January of this year.

Since then we have met several times. We still get many calls from frustrated hunters negatively impacted by low-flying aircraft. I have written several letters on behalf of the community in regard to complaints received.

We wanted to, we wrote a letter to hamlet. We wanted to hear what the Akaitcho Dene, our neighbours, were so concerned about. We have the same interest in issues regards to protecting the Thelon watershed. We might be divided by a territory boundary, but the river, the Thelon, has no boundary.

FACILITATOR: Okay. Respectfully I'm going to have to ask you to, give you 30 seconds here to sum up and we'll move on to the next group.

MS. SCOTTIE: Thank you. We have zero funding. We operate out of our own pockets. Here out here I have copies of my presentation. I have I think 10 copies. If anybody wants to get copies. Thank you.

FACILITATOR: Thank you very much. We'll move to the next person. Or sorry, next group. Baker Lake HTO. Same, five minutes, please.

MS. SCOTTIE: You know, I appreciate this, but I'm here to represent two committees, which is confusing enough, and I hope this time I won't be cut off. Thank you.

My name is Joan Scottie. I have been appointed by my colleagues to represent Baker Lake Hunters and Trappers Organization to NPC uranium workshop. The board of directors of Baker Lake Hunters and Trappers Organization elected by, are elected by Inuit beneficiaries and provided a mandate to represent the best interests of the community in our areas of wildlife management.

Our mission statement consists of many issues. It is critical for the HTO to work jointly with community organizations, government departments, our Inuit organizations, NTI and KIA, and other partners to achieve and maintain results in the following areas of shared HTO responsibility, protection, and conservation and sustainability of wildlife, commercial activities, promotion of traditional lifestyles, monitoring, passive development.

In achieving best interest of community, the HTO independently responsible for achieving and maintaining results of, results in the following areas: review land use permit application, community hunters rules, policy development, implementation, negotiation of agreement and industry policies, practices, communities, and with the community.

Let me know if I have two minutes.

Baker Lake is the only in-land Inuit community in Canada. Our hunters are mainly and traditionally caribou hunters. We heard from BQCMB submission that local harvest is work $17 million yearly. Our hunters are part of that local harvest. We have no other big wild game other than muskox, which has been protected by law. Muskox is still heavily regulated by boundaries and seasons. Our community is given total allowable harvest of 42 in three different zones. The hunters we represent hunt mainly from two caribou herds, Beverly Lake Caribou herd and Qamanirjuaq Caribou herd. Our hunters are still maintaining their traditional lifestyle.

FACILITATOR: Two minutes, please.

MS. SCOTTIE: When I say 'lifestyle' we have to understand and respect their lifestyle which are coordinated by a traditional season. Seasons for drying meat. Seasons for collecting (inaudible), thin skin hides for footwear, etcetera. Seasons for collecting (inaudible), clothing. Seasons for (inaudible), cashing. Many of those important hunter's seasons coincide with the same time the mining industry is most active.

Baker Lake HTO receives a lot of complaints from hunters. Recently I wrote a letter to wildlife organizations to find out what regulations we have to low flying aircraft. We have been advised by GN regional wildlife officer that there is no laws how high aircraft are supposed to fly or how low they can't fly.

Baker Lake HTO has also received copies of land use permit projects and for comments, environmental assessment –

FACILITATOR: Okay. If you could wrap up. Thirty seconds.

MS. SCOTTIE: I'm almost done. There are a lot of applications for land use permit projects in our area. Baker Lake needs to meet once a month and one special meeting per month. Thank you.

FACILITATOR: Thank you very much. Next I've got Martha Jora (sp). If you could say your name, is it a question or a statement?

MS. JORA: Both.

FACILITATOR: Okay. You've got five minutes.

MS. JORA: Only five minutes?

FACILITATOR: That's correct.

MS. JORA: (Begin Translation) I'm going to speak in English. (End Translation) I'm going to speak in Inuktitut. Put your hearing aids on.

(Laughter)

(Begin Translation) I'm Martha Jora. I was born in Beverly Lake in the Aberdeen Lakes and I grew up in the area. I'm sorry if the area's going to be contaminated. Obviously it is the rich people whenever they leave they normally, they're going to be driving around and riding around in long vehicles. And here nobody's going to be looking after us, so keep us in mind. The non-Inuit will be making a lot of money and they won't be thinking

about the Inuit and they will not be thinking about, they won't be thinking when we're sick. And they're going to be looking at mainly money. And those who were able to work even though they have finished their education and it is obvious it is only the non-Inuit. Maybe they're speaking well, but they're only lying. And if the area, the land that I grew up, that I grew up with is going to be contaminated and wrecked and I'm sorry if that is. I know that in the world I'd like to get the number for the Greenpeace, the numbers. I'd like, please give me the numbers for Greenpeace.

And the other, the other one, and if there, if the young people are able to look for work let them work hard. They're well educated. Let them work and not be taking alcohol and drugs. And (End Translation) have respect on Inuit. They're human's too. Inuit (Begin Translation) and yes they have hearts. They are not dogs. (End Translation) They're not dogs. Treat them like are humans. (Begin Translation) We are not (End Translation) We are humans too.

FACILITATOR: Two minutes, please.

MS. JORA: How many minutes? (Begin Translation) The area that I grew up with that I was born in, I don't want the land wrecked or contaminated. I'm sorry for if that and it is going to be wrecked and contaminated and disrupted for by money. If you're both ready to die will the money will keep you alive? No. And if the uranium's going to be used for warheads it is also said in the (inaudible) that you should not kill and if they want to use the, not just, not just nuclear power. I'm just speaking upon whatever's been happening in my heart. Thank you. (End Translation)

FACILITATOR: Thank you very much, Martha. Peter Tapatai (sp). Tapatai, sorry.

MR. TAPATAI: Five minutes, right? My name's Peter Tapatai. A long-time resident of Baker Lake. When Nunavut was created we were one of the fortunate communities that was selected for decentralization. I really had a great deal of vision that a lot of employment was going to come to our community. We saw various departments come into Baker Lake, but today I see very few of our community Inuks working in the government offices.

I've watched the transition and the transition in my mind is not moving very good. I have watched our Nunavut government, and I'm sure you have listened to our government, ask for money from the federal government and we get very little money from the federal government. Tourism is supposed to play a role, but it plays a very small role in bringing jobs to our community.

I feel that our Nunavut government needs to have much stronger economic foundation. How can we the Inuit be heard when we depend so much on handouts? Handouts does not bring a voice from the federal government. Handouts brings very weak voice. We need to have strong voices to be heard.

Our land claims have been settled. Some of the land that we have are on some very prime property where the resource development would like to extract the commodity.

I started my business about 10 years ago. I registered my company as an Inuit firm

company. In the 10 years that I've been running I have never once successfully been awarded work from our Nunavut government. Even to get a simple snow removal job it is very, very difficult. I have worked hard to staff as many local Inuks in my business and this year we had about 20. That's pretty good. From January to May.

PEL has been only around because of strong support from the private sector. For one, the Northern Store has been faithful to us for 10 years. ComAir and the resource development.

FACILITATOR: Two minutes, please.

MR. TAPATAI: Two minutes? It is the resource development I have seen most beneficial to our community with the Meadow Bank Mining Corporation. If it wasn't for the Meadow Bank Mining Corporation I don't know where we would be finding work. It is very difficult and jobs are so limited. At this time I was very pleased to hear that 50 local people from Baker Lake were employed in that construction of the mine. I wonder how many real people will be working when it actually starts mining.

I support the resource development. It is the only way that we can be less dependent on handouts. They're the ones that are constantly looking for people to work. I was so inspired by listening to Rene Rediron when he was talking earlier today. These are the kind of people we need to hear.

We have lands that have been selected to wanting to be our wildlife refuges. We already have a Thelon Game Sanctuary. We don't need any more. Our land, we're supposed to make earnings out of it. Let's open the land. I support the resource development. Thank you.

FACILITATOR: Thank you very much. Peter Alariak (sp). Sorry. I'm having a hard time reading this. Alariak. Ala? Rak?

MR. ALARIAK: Five minutes? (Begin Translation) Listening to the people that have given their presentations obviously they have real issues that they've dealt with, that they've spoke about and they're people that are refusing. Those who want to have mining development and those who are refusing to have uranium not be mined. And I'm in my own mind I'm getting to the point where I don't even know which way I should go, which one I should believe. And yesterday when we were talking about solar power and all the other energy for fuel oil and gas and nuclear and I feel that they're saying that they want to use uranium for nuclear power. And the only thing that I'm, and it seems that, you know, they seem to be saying that they're not that, that there's nothing there that really would be dangerous to the environment, but when, and when before, before, and all we had, we were doing fine with only caribou and caribou clothing.

Now that all the others are, we're trying to, we're just trying to, we're now using the power and to be able to watch other movies or programs that are for the, to be using nuclear power ourselves instead of using, and whenever we're trying to they use it. They're no different. Our children are the same way. Our youth are in the same here. You know, we don't want to be sleeping and living in snow igloos. Yes, the houses are very comfortable. They are good, the igloos, because that is part of our traditional life.

Those who will want to be able to, okay, let's hope that one way or another we don't want to be, we don't want to have anyone scaring us and putting us down and I'm just, and the non-Inuit who are here, if they hadn't found anything to have power obviously they, you know, they didn't use the power in the past, the kind of power that we have today including nuclear power.

And it seems that when we're looking at that, and now that we have Nunavut, and it seems obviously today we want to be able to get royalties so that we want to be able to move forward and have development that we would like to see happening. Sometimes even in the morning either one of them, in the morning, no doubt in the morning, whoever is here when they wake up in the morning they will want warm water, hot water to wipe away the sleep that they had slept.

And obviously it is hard to move backwards and I think I'm almost up to five minutes. And while I'm trying to find some way of assisting others anyone else I wonder where we can find anything that are supporting for other types of energy. Are they able to find other energy? So this is for, and before, before we stop to, if asked what kind of whatever power we should be also be maybe in 40 to 50 years we've only started, oh in the last 40, 50 years we've only started education, formal education and when I was growing up, you know, I was using the skin of a bull, neck bull was used, that was my diaper at the time when I was growing up and now they don't, today they don't want to use that skin as a diaper. And so today – (End Translation)

FACILITATOR: Thank you very much. Our next speaker, Johnny Mangart (sp) from Arviat.

MR. MANGART: Hi. (Begin Translation) Thank you. I'm a mayor. I'm also a member of the HTO committee and I'm also a school counsellor at the school. And with the issues, those who are against and those who are in support of the proposed mine and just having I think the people from northern Saskatchewan I was, I was a lot happier to hear. And those, when I heard, when I heard other people seemed to be thinking this is rather dangerous and it seems those who really see, who really support and they're not listening to us and they don't understand us. But today we Inuit and our children today are not like us today. I also grew up on the land and I used, but my children aren't like that anymore. They can't even build igloos today and all they want to do, all they're looking at TV's and computers and that's all they're concerned with. Yes, we really have to be concerned about are you, because they've got to be happy too. They've got, we've, the kind of economic-based livelihood should, we who are adults, we should not be keeping our youth standing still. I'm sorry, because this is what I'm, we've got to move forward. We've got to think about our future. Our youth, if we want our youth to be happy in the future I think we've got to make sure, and whenever you, even though you get money, maybe getting a little bit of money from, and it seems that the money that you get every year, obviously they don't last very long. The money that comes from the federal and Nunavut government and to make sure that all the money that they're giving those that have graduated, obviously. They should not be working picking up garbage along the edge of the road. Those who have graduated, they should be able to work as well as they should. And the end, I have graduated then how come I'm cleaning up,

picking up garbage just outside, around the community of Arviat?

Those who are adults, they have a lot more understanding than we have and we adults, you know, we have to try and listen to them as to what they would want to do. What would make them happy? What would, there are all kinds of parties that have boards and committees and I don't think there is anything that is really that dangerous. What we think concerning their wildlife officers, there's water boards, and there's all kinds of other boards that could deal with the concerns that we have concerning our wildlife and our environment. I think we have to really think and start looking for good ideas. There's a lot and this is going to be a billion dollar business and so, and I think we've got to think clearly and think about our children and our grandchildren and of their future.

Thank you for giving me the chance to speak. (End Translation)

---Applause

FACILITATOR: Thank you very much. Leo Mimaliuk, Mimialik (sp)

MR. MIMIALIK: Hi. (Begin Translation) I am from a member of the committee and also a member of our HTO Hunters and Trappers Organization. We protect our marine. The Baker Lake River flows down to our area in Chesterfield Inlet. We have various committee members protecting that waters. Close to (inaudible) and also I would like DFO to look into the, into our concerns. I have said this before. And also close to Baffin Island, on the Baffin Straight, all the oceans that has to be protected as far as up to Baker Lake, Baker Lake River. This is my big concern to protect our sea mammals. We feed often from our waters from the sea mammals. This is my big concern. I have to support my and protect my people and my land. I'm not just going to sit back and just listen and not say anything. I feel that I have a right to say this to support them and help them.

There are many organizations today in Nunavut and also through Nunavut organizations. I think there's going to be, it's going to have a negative impact once the uranium is open in our area. It's going to damage our waters. And we're always going to feed off the land as long as we live. And it's also our next generation. It's part of our culture and we value it. We live totally different from non-Inuit, from people from down south. We're going to pass this on to our children, to our grandchildren. Although they may look like they're living in today's world it's for, we have to protect our land today and it's not just for today it's for our future. I understand that we have to come out with a new, new jobs. That's only understandable. But if it's dangerous, if it's going to damage our waters, our lakes, that's questionable. We have a big decision to make.

And also the close to the Kigotaluatjiak (sp) waters in our area and I would like Nunavut Impact Review Board to be careful of this when they review such a thing as this one. That's all I have to say. (End Translation)

FACILITATOR: Thank you very much. Matthew Inukshuk (sp).

MR. INUKSHUK: (Begin Translation) – a member of the, I'm a chairperson of the HTO Hunters and Trappers Organization. And also I'm in search/rescue. My concern is

uranium and what was being talked about in the last day and a half. When you can see the dollars before you're eyes, that's a good thing. And also what we saw on the screens and it was very helpful. And this little thing I'm holding here, it's very compact and it can produce good things.

I can understand that Everything is changing in this world. We're living in the trend today. Although I'm an elder and our future generation after we're long gone, they're going to have different values and also they're going to be living, they'll have to deal with the situations such as uranium, uranium mines. And it's going to damage our future children for the next generations.

Our children today we tend to say that our children's future, we tend to say that they're not always going to be just children today. And they'll be living in a different trend, totally different the way our way of life today. And the river that we mostly concern about is the Baker Lake River going to the sea. Our sea waters. There has not been anything said, anything about that area. From Rankin Inlet past Chesterfield to Coral Harbour. And it's going to impact all those waters. It's going to impact our sea mammals. Our water is pure and pristine today, but that's going to be damaged.

But it's, like I said before, it's good to see a big dollars nowadays, but still, we have to make a decision for our future and as most of us are active in various board members. And also our children today they have to be able to upkeep themselves. And also sustain the land. If they respect this they'll be able to work with the new technologies such as computers. I'm glad to see that if that's going to be able to work to help them. Like for example, I have this little gizmo here. That's how small it is. And that's going to come from a uranium mine. And it does sound good, but I know that it's going to have negative impact. If not that's good. I'll be happy.

The dust, pollution coming from the uranium mine, but it's totally different from southern part of Canada. Our air is different up here. And also in the mainland here, it can be very cold in the winter time. In summer it can also be extremely hot in the mainland. It fluctuates very easily. But if there is contaminated lands with the cumulative effects and so on, how are we going to be able to maintain our wildlife? And our caribou habitats? Our people? But we'll be missing that. We'll be long gone. Although what was said earlier, sometimes you cannot see when it hurts you. When uranium hurts you. (End Translation)

---Applause

FACILITATOR: Thank you very much. Hugh Natila (sp).

MR. NATILA: (Begin Translation) Good evening. My name is Hugh Natila. (End Translation) Just maybe a comment. Maybe throw in a question. It's very interesting to hear all these talks going on with the pros and cons. Very informative. I'm just glad we don't have to decide today one way or another with regards to uranium mining. I was sort of hoping to see, I've heard some delegates from Saskatchewan and I suspect there's a base study available. Someone mentioned they've been there 30 years, if not

plus, so I suspect there is a baseline study from 35 years or 30 years and prior or before. And if there's been any changes in that baseline study from Saskatchewan with some of the, I'll have to combine uranium mining activities.

I guess it's a tough choice we have to make here eventually. We all want jobs, training, and opportunities up here. And we all know we are lacking all those things up here. And, but listening to some of the comments that were mentioned yesterday and the day before, all the pros and cons, I think it's important for, especially for the younger generation now, for them to be, if we're going to involve them in the process that we need to start educating them as well now today and to be able to provide them a baseline study, something they can look at. And after all, like someone said, we're going to leave something with them. Whatever decision we make here.

So I guess that would have been one of my questions is regarding baseline studies. Just, I think you all know what they are. The ecosystem, the water, the caribou, and I think in particular with the proposed site in our area. I think there are some wildlife movements, high traffic of caribou and wildlife movement. So I don't know if there's been any base, if there are any baseline data available now for that proposed area.

So I just wanted to make that comment. I think it's, we all want opportunities and jobs and training. I think that's why I'm glad we're having these comments with the pros and cons so that if there is something that we should be aware of then by all means let's see them and hear them. And (inaudible) one of the presenters said, you can't taste, you can't see whatever it is that he was concerned with. Or you can't taste whatever it is that he was worried about. Then does that affect the baseline study? If you can't see it or taste it or, you know, smell it. I guess that would be one of my other questions.

But I guess basically just to wrap up now, I think we need, certainly going to need more information, but I would also like to encourage and also support a couple of comments earlier that we need to involve the younger generation now because after all it is going to be their world, whatever we, you know, decide here in our generation. That's all I wanted to say, Mr. Facilitator. Thank you very much.

FACILITATOR: Thank you very much.

---Applause

I'm not really sure who to address the baseline study question to, but I can say that any project that advances into environmental review is required to a certain level of baseline studies from which impacts can be assessed.

I'd like to move on to the next. Silas Anooniak (sp).

MR. ANOONIAK: (Begin Translation) My name is Silas Anooniak. I grew up in Baker Lake. I have heard many topics and discussions about the mine. I have worked with the mine before. As I recall, it has affected our wildlife. It has done a lot of changes to our natural environment. We, the local residents, have a saying that the changes, I would like to encourage and help for those people who are working with the mine. And the people who I, the people that we are working for and using mine for us to work in the

mine and not, have little knowledge of what the pros and cons are about this.

I would like to say from the people of the local hunters and trappers and I would like for the organizations that concern wildlife that the noise and the noise population and what changes have been done on our environment, they now know the wildlife, especially the caribou around here, don't even run away from the people anymore. They have become used to having all these vehicles around. And now I feel that we should have somebody monitoring all the time with the wildlife that are in the surrounding areas, especially Grizzly Bears that are hungry. If a Grizzly Bear is very hungry they can come close right into town.

I would just like to say that if the mine, although it is in the process, we are the ones that are living in this environment. A lot of the Inuit today don't rely on caribou as part of their food group. Because of the dangers that have been affected by the mine. (End Translation).

FACILITATOR: Thank you. I've got Paula Huson (sp) and John Killulak (sp) with a presentation.

MS. HUSON: Hi.

MR. KILLULAK: Hi.

MS. HUSON: My name is Paula Kigugillik (sp) Huson. This is my uncle John Killulak. I've had, I would like to thank the board for letting me talk, and everybody else here. I'm doing my masters degree in Natural Resources Management at the University of Manitoba. My masters thesis is called "Understanding the Tundra Landscape Surround Aberdeen Lake, Nunavut, Through the Eyes of an Inuit Elder, John Killulak." The inspiration for this thesis ... I'll go back one second.

First of all, I want to thank John, my uncle, for his patience for working with me on this project, as well as my mom for giving me the inspiration for this project. As well, my aunty Lucy, Joan Katlak (sp), and Sadie Hill, who were my hard working interpreters and transcribers. As you can see, I'm half Inuk, half Kabluna and I'm starting to learn my language again, Inuktitut. So I thank my uncle for his patience.

The inspiration for my thesis was my mom, Betty Natsialuk (sp) Huson, and John Killulak. They were born, my mom was born at Aberdeen Lake and before she moved to Baker Lake that's where her and her brother grew up. They moved to Baker Lake in the late '50's. John is the eldest surviving brother of my family. There were 13 siblings. My grandmother was named Martha Kigugillik. That's who I'm named after. My grandfather was Michael Avolok (sp), both of whom I've never met. In the Inuit culture people look at me as my grandmother.

That's my outline and I'll go through it as we go along because we don't have very much time. As you know, this is Nunavut, this is Baker Lake, this is the study area. Through my interviews with my uncle, this is the area where he travelled, my grandfather travelled, all his older brothers travelled, and this is where they travelled to hunt, camp. My grandmother. And in Baker Lake, it's the geographic centre of Canada. There are,

this is the only Inuit, in-land Inuit community in Nunavut and in the world. Well, in Canada. There are six Inuit groups that live here. Just like the caribou, we have our own areas. There were the Pilingmiut, Aikilingmiut (sp), Pavaktungmiut (sp), to name a few. So there were different groups of Inuit that lived in this area. And they, people from here, their main food source, country food, was caribou and fish.

My research goals were to record and document John Killulak's knowledge of the Aberdeen area so that it would be accessible to members of the community and future generations. This knowledge that he has is no longer around. I don't live the lifestyle that my grandparents, he lived, or my mom before they moved to town. For me, I learned so much about my own heritage.

This is my family back in the '50's. This is in the Aberdeen Lake area. That's my grandmother in the middle there and my mom here as a little girl. This is my family now. I rented a plane for an hour to go fly to the area that we used to live, where my family used to grow up and live and hunt and live off the land.

Part of my work, I did a lot of place names documentation. And in the name of, in Inuktitut lots of these names describe areas of where caribou crossed, where they camped, what types of animals they harvested. During my map work I learned a lot about the way of life, winter travel by dog teaming, ice fishing, just to name a few. In the summer people travelled with dogs. They lived in caribou skin tents. There's a lot more richness to this, to my, to the information that my uncle gave me, but it's hard to condense it in five minutes. As well, part of this work I had three interpreters, as I mentioned: Lucy Eevu (sp), Joan Killulak (sp), Sadie Hill. All of which are my uncle's nieces. Their fathers had passed away quite a while ago. I've never met them before. They passed away before I was born.

FACILITATOR: Two minutes, please.

MS. HUSON: I got two more slides. Another part was, my uncle knows a lot of songs and legends about the area and I wanted to capture them. He knows songs from his father's time. So part of it was capturing it on a video and having him, he loves to talk about, sing songs and educate the young kids at the local schools here or to the tourists about the Inuit culture. I wanted to document that.

As well, we're in the process right now, that's why I'm in Baker Lake, is to work on my thesis and to do some data verification. We're doing some map work and it's just one small project, but it has such valuable knowledge about a way of life that nobody lives now. And I look up to my mom, my uncle. I'm half Inuk and I've finished high school. I've graduated from the University of Manitoba with a Bachelor of Science Major in Botany. I'm going to finish my masters and I heard a lot of information today. And I just hope that people are very honest about what they're talking about and not just making, I just hope people who are giving the information are very honest about what they're talking about because this land that we're talking about is very special to a lot of people in this community. There are six Inuit groups here that live here. As well, I've heard talks about how they're going to transport the potential mining stuff. Anyways, it's going to affect the marine mammals. But not only, it will also affect our caribou.

I also want to thank my sponsors, the Department of Culture, Language, Elders and Youth, Kivalliq Inuit Association, Nunamiut Lodge, and Natural Resources Institute. These were all sponsors on this project. And I'd like to thank John, my mom, my family. This has been a great experience and it's been fun and I've learned so much. That's it. Time out.

---Applause

FACILITATOR: Thank you very much. Do you want to say a few words? Very brief.

MR. KILLULAK: (Begin Translation) My name is John Killulak. I am 72 years old. I'm getting on with my years. I may not look it, but I am getting on with my years. I would like everyone to know our habitat here, the game around our land here, and all in our region in Kivalliq and Kivalliq waters and I cannot say in numbers. I can't even tell you the population of our community here by numbers. Is it a thousand or is it a million? We have not changed our diet. What we feed off from the land. And we live seasonally as long as I can remember. Up to now. And now the different, the caribou herd is different nowadays than they used to be. In spring time they used to go down south when the snow just melting. And also in summer time and there pelts would change. They would shed their fur and even that, the season is different and it changed our caribou. Everything has changed. It's not like it used to be due to climate change. Those people, what I have heard today when people were given a workshop here I heard lots of people supporting, some people not supporting. And I'm not sure what kind of decision to come up with if I was to make a decision.

We still have to support our young people today. We have to be able to pass on our knowledge. We know the fact that it can't, it's not possible to go back the way we used to live, but I'm still very knowledgeable as long as my food is not changed. What I live off the land as long as they're here. Our children and grandchildren and great-grandchildren, and I would like people to understand me. I would like to pass this on to our next generation because I care what I have learned at the (inaudible) in one of the lakes that's close by, what I've caught, the caribou look really different. It had a different, it was different. And also the skin didn't look right. It was affected and it was also, ti wasn't normal. Although I was shooting at it, it didn't even notice. This is just an example. Thank you for giving me an opportunity to say. (End Translation)

FACILITATOR: Thank you very much. Simon Tookamee (sp), please.

MR. TOOKAMEE: (Begin Translation) My name is Simon Tookamee. I was born close to Gjoa Haven in Nunavut. That's when I was just a young man. And I moved to Baker Lake area. That's when I became a regular resident like people here. I'm an artist and I draw pictures. That's how I make a living in Baker Lake. The people active in mining industry, if some people are going to support us somehow, if they are going to be there for our children, our youth, but if the place should become contaminated and I would like this to become collected and not to spread it. We understand that you cannot see what is, what can contaminate our environment with your eyes. It's invisible, but if it's going to contaminate our land, our environment and it's going to stay for the long time, for many, many years, and I have experience some in my life what has set us ...

But today the caribou's different. There used to be many caribou in our land, in Kaminukta (sp), in Baker Lake area, and now caribou has totally changed. Their behaviour has changed. Some of the herds, they're not even scared. When we were children we used to be very shy when the white man used to come here for the first time. The caribou used to be like that. They did not like us. They were shy of us. And if there was to be a uranium mine I would like this to be cleaned thoroughly before you abandon it. And I don't want to, our game, our caribou habitat to be damaged.

The caribou ... what? Had rabies. Had rabies. Some caribous had rabies. Oh, some of the caribous were rabid. They were acting strangely and I don't know what caused that. I do not have too many comments to say here because I am not too active in such as what is going on today, but I have a few concerns.

The people in the mining industries and also there's some explorations going on, I do not go to those such sites. I won't be able to tell with my eyes whether it's going to damage our land. I cannot tell if it is or if it is not. Although we've been discussing it here. (End Translation)

FACILITATOR: Two minutes left. Thank you.

---Applause

Timothy Aviuk (sp).

MR. AVIUK: (Begin Translation) I'm Timothy Aviuk. I was born near Baker Lake. The topic we're talking about, the uranium mine. When I was 12 years old I had hunted, I have, I went to that place where the uranium mine is when I was at the age of 12. I did not touch any artifacts which is there because I'm not so educated. I don't even know how to write in Inuktitut. But I'll be living as a white man style. It's really good to have, when there's jobs available.

At around 1974 I had started working with the mining exploration. I was a camp supervisor there. And the waste, I would do drilling. Just last year when I went to work where the uranium mine is the land, the scenery of the land seemed to be expanding somehow. And I am a prospector and ... whenever, when I was up there it seems that what they found seemed to be getting bigger and bigger and if they're not, if they're going to I'd be happy myself if the mine was opened. It was last year I saw caribou that was dead last year. Maybe I wonder if the uranium isn't growing in terms of, and we used to be able to document whatever numbers and it seems the area seems to be, the uranium seems to, even though there are people, and also that there are, that there, that we could have a health problems. And we've also, that there are people who keep watching over the environment and the wildlife.

And those who want to be able to work who, maybe they are well educated and maybe they've graduated. They would, whenever they're working they don't work very long. Maybe because of their lack of understanding. And here I am who had not even it seems I'm working the longest and I have not even graduated in high school. I just wanted, as I've been keeping this in mind, I have not been able to, and I've been working all winter myself. Thank you. (End Translation)

FACILITATOR: Thank you. Next we got Johnny Kakimak (sp).

MR. KAKIMAK: (Begin Translation) Good evening, Baker Lake. I'm going to be speaking in English and those who are visiting here into the community, please welcome. (End Translation) I'm from Baker Lake. I own a small taxi company here in Baker Lake. My thoughts on the proposed uranium mine are, I support the mining of the Kiggavik mine because it will create more jobs for the local people of Baker Lake, both uneducated and those that are finishing their high school. It will put more people out of social assistance. It will give more contracts to local businesses.

In Baker Lake it was very, very hard to get a job so that had, had no choice but to go on social assistance to feed your family. But today some people are now working on the road to the Middle Bay gold project. Some of the people were on social assistance and this project has created jobs for them. They are happier now because they have jobs and they can afford to buy ATV, Hondas, snowmobiles and vehicles. They are feeling better to support their family now. They even go by taxi now around town. You can tell the Baker Lake economy is growing from this.

Social assistance limited money, like three hundred dollars a month for one person. But the mines are giving them more than that. Social assistance usually for food, but what the people earn today can buy anything. Some people on assistance don't even get cash, but only trade it at the Northern Stores.

Even the Ferguson Lake and Aberdeen Lake projects are creating summer jobs for our people. You hear about them quite a bit now. Even me, I'm going to the Cameco camp tomorrow for the summer.

Another thing is that the uranium mine is a lot safer today than from the way past. Today technology has really improved, as you can see from the north of Saskatchewan uranium mine project. Technology is really growing too now, today.

Uranium is not a toy, it is being used for real things like fuel energy. Using uranium would slow down that global warming, too.

Like you hear it on the world news all the time, this is the real thing. Not like going on the holiday to the land or sport hunting to get trophies. I had a brother who was guiding sport hunting in 1985 and he drowned along with one of the sport hunters. Me and my family never got any compensation from my brother's death, but today those that are working at the mining camps get life insurance. These people are not playing with northern animals, but they are working on real things.

We are living off the government. We don't even have any factories to grow anything up or anything or to build anything up here in the North to work with, and depending on the South –

FACILITATOR: Two minutes.

MR. KAKIMAK: If we want the uranium just let them have it so they can help us out more with the stuff we want from the South. Pay it from our hard earned money from working at the mining companies. The stuff we want from down south up here are too

expensive to get the right cost way too much. We don't have any highways to make things cheaper. The mining companies pay good money to their workers. The mining companies get news from the government before the mine opens and when it's opened and after the mine closes they will have the choice to put away the waste in a safe manner.

Baker Lake is growing in population even more. Students are finishing their high school. They are going to need more jobs to support their family. And those mines are going to make more jobs for them.

I know I asked Baker Lake people and they have the community to support any kind of mines up north. This is why I support the uranium mine. Thank you.

---Applause

FACILITATOR: Thank you very much. Carmen Kakimak (sp).

UNIDENTIFIED FEMALE SPEAKER: She's not here.

FACILITATOR: Okay. Thank you. Willie Nakolak (sp), please.

MR. NAKOLAK: (Begin Translation) I thank you very much. Sometimes I just wanted to say a few words on the approval. Maybe I don't have a lot of knowledge on it, but I can say a few words. Those, that people want to work on, any concerns that, and we've heard both sides, pros and cons. It seems at a point it might confuse us as to which way, if the communities are going to be able to make decisions for themselves. And if it is, and if this will also be obviously if it is also going to help other communities in the Kivalliqmiut and those, and I'm thinking that it will also help the Coral Harbour and (inaudible).

It seems where they want to do the mine, and I think it's a very good land. Obviously people have lived on it. And I can't say which way too much, but ... it would have been nice to hear from the elders. And those who have, I wasn't too happy with the five-minute deadline, but ... And I was thinking of how people of Baker Lake seem to be in support of opening uranium and it seems that they're supporting from what they themselves have seen. And today we've got to try and keep our youth happy in whatever way possible. But on the other side, we should look on the other side. We should keep our elders in mind. Maybe because even though they, because they grew up in the area, even though we may be, we've got to keep in mind our youth and our elders.

Inside Nunavut. I'm not too sure which way I'm trying to ask for myself and I can't say too much for myself. I have for a number of years when I was young, you know, I was a hunter myself and ... And the lands that we've used that our parents have used, and if they would obviously I would be hurt too if they were destroyed and disrupted.

I just wanted to keep my speech short, but we've heard a lot of information today and I'm very thankful for that. And if they are in support of the proposed project I would be in support of the project myself. That's all I wanted to say. Thank you. (End Translation)

FACILITATOR: Thanks very much, Willie. Agalakta (sp). Agalikta (sp). Sorry.

MS. AGALIKTA: (Begin Translation) I've been in this workshop since yesterday and today. And for people who are against or for and for those who are interested in working I've been hearing this and there are times when we hear it's not any danger to have that uranium mine. And some people say that it is dangerous. I'm 70 years old. In regards the uranium mine ... I was born in Higiavik (sp) just right, just next to it where the uranium mine is. We hear that we want to approve the uranium mine because most of the people are thinking of getting young people to have more jobs and because they won't be so much hunters anymore like there used to be. I tell my sons or my grandsons to concentrate on getting employment.

I live near, I used to live near and I was raised by where the uranium mine is. And my late husband, he also used to work there. At a camp site. When he did prospecting he had found a good value rock. And there are some people here who knows our background, but if you're interested in knowing more please feel free to talk to me.

When I was a child I started knowing about the mining camp site or mining openings ... near the Thelon Lake there was ... If I didn't know that there were rocks up in, I never used to believe our grandparents that, and it seemed like last, some, came from up, from space, from heaven and when I was, I was also a prospector, as a prospector myself I needed, when I took the training I needed interpreter. I wanted to learn as to what they, there's a lot of names, nice names for all the different rocks that we've seen. The only way that I seen, the only way, I'm a carver and I never, I don't have any real gain employment. I normally just, I'm also a hunter, but and here I am a woman and I can't share what I, by snow machine. That's the way my life is. (End Translation)

FACILITATOR: Two minutes.

MS. AGALIKTA: (Begin Translation) If you're going to, thank you very much. The uranium, I would like to see the uranium mine opening. Whichever is the greater, those, we've been hearing both sides whether it's dangerous and whichever has the greater numbers let them, it would be great as we were saying that there were first nice people that have come into town who are also telling us that uranium is not as dangerous as predicted. Thank you. (End Translation)

---Applause

FACILITATOR: Thank you. The next speaker, Winnie Olingnak (sp). And just to let you know there's room for two more speakers if anyone wants to sign up at the back.

MS. OLINGNAK: (Begin Translation) Thank you very much. I'm a little nervous. I wanted to, I have a lot on my mind. My mind is working hard. Those who are in support and those who are, and I'm not even sure which way I'm going to go. I feel that I would be a good employee for a mining company. I have a lot of rocks that I've collected. Yesterday I was, when I was listening to the knowledge that I even have a little, a little cabin with, and I found out that there is a lot, in some rocks that there is a lot of, and times there I'm, and nobody wants to go, wants to go out hunting because all they're thinking about is rocks. And I was becoming afraid because of the type of rocks that I

may have had. When we were trying to keep the mining companies at bay and now it's over. I think, it seems the mining, it may be opening, in the process of opening and the only thing that I really want that the old barrels, that the old barrels that are empty are shipped back south so that as there are a lot of things that aren't being used in town, whether they are metal based and the other thing we would like to see in the communities is having doctors in the local communities as we're, and as we're, even though I'm a little afraid I'm really confused sometimes. You know, you, when you have a bit of understanding, you know, sometimes, and because of the lack of my understanding I have fear in my heart. I'm not ... If you were talking about Inuit traditions I'm also part of the committee members of the Inuit traditional knowledge committee and because my, those who have not finished speaking. As I have nothing else, but I'm very thankful for having had the chance to speak. Those who have a little more to say, give them a longer chance as I'm out of words. (End Translation)

---Applause

FACILITATOR: Thanks very much. Elizabeth Longerat (sp).

MS. LONGERAT: (Begin Translation) Thank you. I am Elizabeth, but my real name is (inaudible) in Inuktitut is my real name. My middle name, my own name. I was, no, I was not born in Baker Lake, I was born ... When they were going to be travelling along the back river. We can speak on anything that we're thinking about. Yes, thank you. I grew up on the land myself and I did not grow up where there, in the Arctic and the only way we travelled was by dogs, by dog teams and the dogs also carried their stuff on their backs in the summer. Back then when I was growing up I didn't even know whether there were white people or whether there were any mining companies. Today even if you see them you'd be really late. I haven't had a husband for a number of, I have five children who are Inuit. We had 10 children, but five of them had passed away young. I'm speaking, I want you to know that I'm speaking only of what's in my mind. Our parents ... when I was maybe two or three years old I had two brothers and they were, and they died young. When I was either two or three years old, and having growing up without parents it is rather hard to live on. I want people to, I'm in support of mining companies even though I'm not working and I'm not educated. I would like to, I want to be, I want to live with the knowledge that I grew up with. Go and catch ptarmigan, caribou and fish so that I, this is what I want to speak about and that's all I have to say. Thank you. (End Translation)

---Applause

FACILITATOR: Thank you very much. I've got Silas Silungiak (sp).

MR. SILUNGIAK: (Begin Translation) I was not going to speak today, but the, I'm asking that we can speak, and obviously, when we're talking about our future I think we can say anything. I'm not longer shy today. I'm going to speak. I'm going to talk about myself. I grew up in the area of Anadine (sp) Lake. I'm now 62 years old. I lived in, I lived out on the land. That's where I grew up and that's how I lived. When we were moved by the government we moved onto the edge. I'm a hunter myself. I do make stuff. I'm, maybe I'll work for a month or two. I'm not really full time, gainfully employed. I

grew up on wildlife and sometimes I get gas so I can travel. I use, I have, my wife is working except she's not making too much money. We can't even get what we both want because we don't make enough money. We have two children. There's a number of people, okay, we're looking for anything to help with food. Sometimes we're always worried about as to how we're going to feed our children.

There are people that are opposed and it seems as if we're opposing each other and whoever wins and if the mining company, I would think, I'm getting to the point when our children are growing up I will not be able to, they're going, just like myself as they're growing up, once they grow up they're going to have to try and live the way I do, go out hunting and working and we've gone to watch them. We do, we cannot, we cannot stop them anymore and we don't want to stop them and whoever wants to work okay, go ahead. Maybe those who are on social assistance, they start picking up things that they don't own, but if they found gainful employment, if they could, they can, because they're making good money, I don't think we should keep them at bay and keep them idle. I'm starting to see that too myself. They're not going to be like us elders anymore. We've got to try and direct them to somewhere to try and make them happy and maybe that's the only way, even if they tried to do what we did, you know, they don't know what to do any more. So maybe if they worked like the white man maybe they'd be a lot happier. This is becoming very obvious today. And if we just start opening jobs for them so that our children, we can watch our children happy. Maybe it was, I did work for a short time, but in the '70's I just became a hunter and trapper and trying to catch foxes. You know, don't, you can't even make enough money. Especially when you're not a very good hunter. (End Translation)

FACILITATOR: Two minutes.

MR. SILUNGIAK: (Begin Translation) Can you give me an extra two minutes?

(Laughter)

---Applause

When I was growing up I did work, did have gainful, and I worked with wildlife officers to hunt whales and the work that we did, I was happy with that. So now that I'm not longer working I would take myself out to the land and get whatever we want. And it is not very good to, for our young people, it is very hard for them. And so that they will have, even if we're on, even if they're on the land, if they were going to be leaving them, so that we can leave them to something that they can deal with that they understand that they enjoy. And whether it's gas or oil, as long as the jobs become available. Those of us, I don't, because the social assistance is not large enough, maybe if our children were working, you know, I'd be able to get assistance from my own children. So I'm now support of whatever is coming up. I can't move whatever that they would do, work with, but one other one, it's going to come from just myself.

It's been 10 years I've, in the last 10 years we try and make money in terms of I'm also the vice-chair for, that, the elders should all, should not be forgotten. Sometimes it's hard to ask for, if there are people, if there's somewhere we can go and request for

funding and if we see that give me some more. Thank you for giving me the chance to speak. Thank you. (End Translation)

---Applause

FACILITATOR: Thank you very much. I've got Dottie Kayuk (sp) next, please.

MS. KAYUK: I think I'm the youngest one that's speaking up. When I first heard about this and that it was probably going to go ahead, growing up my parents were going to meetings going against uranium mine. So I kind of heard what was going on. And this afternoon I saw some slide shows about education. That you are going to educate the people. But what about the drop outs? What about my age group? My age generation that have dropped out of school? Will you train them? No. You will give it to high school graduates. If you made that much money, if you have that much money why can't you pull those people out of their homes and tell them, here, I'll educate you to give you a job. And one of the things I saw was the northerners will have the jobs. And then I saw less than half have the jobs. It was mostly people from down south.

And the mines, the mining companies come into Baker Lake and they give fees and they give out prizes, things that will be damaged so easily. But what about our wildlife? What about our pride? Here the government is saying we have to keep our tradition alive. The elders are saying we have to keep our tradition alive, our culture. And what are they doing? What is government doing? We have no say in this.

They're going ... They're going to places saying we're going to open it to create jobs. Plus ... What's going to happen when there's a leakage? Who's going to help us? And how do we know that it will be properly stored? Who will come and educate the people that have dropped out? The government should know that there's a high majority of drop outs and they're giving the jobs to somebody else from down south who is qualified. Why not spend the money on Inuit? Us locals? Because we are the ones that are going to be affected. The people from down south, the government, they're from down there. They're not drinking water from here. They're not eating our animals. They're not eating the fish. They're not breathing the air we're breathing. And a slide show I saw was from, the uranium is going to be open near our drinking water, where it flows from. And then what? Who will give us our drinking water? Who is going to buy for it? We are. Because we never have a say with government. They just kick us around and they hand us this and hope that that's going to be satisfactory. But it's not.

Our children's children will be hunting two-headed caribou. Maybe two-headed caribou, eight legs, four, three, and we'll have, we'll probably have big mosquitos. I don't know. And the waste, where are you going to dump it all? Are you just going to leave it up there? How are you going to assure the people that we are going to be safe? And you show slide shows about all the good things about uranium mine. But where are the pictures of the other countries that have deformed babies? That have sicknesses? That have cancer? Why are you guys not, why are you not showing that too. The possibilities of dangers. You're not showing that. It's all goodie-goodie stuff.

Yeah, I know it's jobs for the people. But in the long run, 50, 60, 70 years down the

road, it's going to affect us. And we, the Baker Lake people will be affected. So send your next generation, when all else fails, send them and we'll be pointing our finger. See. I told you. Something's going to happen. But I'll probably be turning in my grave pointing my finger.

---Applause

FACILITATOR: Thanks very much. This workshop this week is a result of a Keewatin Land Use Plan need to do an examination of the environmental, environment and health issues surrounding uranium exploration and mining. And it's being sponsored by the planning commission. They have invited, as indicated under the plan, the other institutions of public government and just before we close I'd like to give NIRB and the Nunavut Wildlife Management Board and the Nunavut Water Board a chance just to say a few words before I turn it over to the chair to close.

MS. BRISCOE: Good evening. My name is Stephanie Briscoe. I'm the executive director with the Nunavut Impact Review Board. I just wanted to let the public know that NIRB is responsible for environmental assessment in Nunavut. Our role in this workshop was to make a presentation outlining our roles and responsibilities and we did that yesterday morning. NIRB will assess uranium mines the same way they do every other project that comes before them. We will work with the proponent, all levels of government, interest groups, and most importantly, you the public to identify impacts, both good and bad, to the land and water, the wildlife, and the economy. It's up to the proponent to commit to mitigation measures and prove to all of us that the project is both economically viable and environmentally viable. Be assured that you will have further opportunities to speak up and comment on future development. I encourage you to participate in any hearings or public meetings that come to your community. And speak out and tell the board how you feel about the project in front of you. Thank you for the opportunity to speak.

MR. TIGULLARAQ: (Begin Translation) Good evening. I haven't said anything all along until now. In, people in Baker Lake, I used to live here at one time. I say hello to everyone here, if I did not see anyone yet. I used to live here in 1991 to 1994. I will appreciate the hospitality. I'm really grateful, first of all. And also, I would like to say, those people who do not know me, my name is Joe Tigullaraq (sp), I'm a chair of the renewable resources board, the management board of Nunavut. I was invited to attend this workshop and also to listen as one of the panels here. We are involved with the game animals. We manage the wildlife board. We observe and also for the Nunavut we represent Inuit, Nunavut. But we work closely with Nunavut government. And also for ... before we got Nunavut it was back, the government, people were, we followed the government of wildlife acts and legislation. So we Inuit, as for today, we are now able to speak on what kind of legislation we would like to say concerning as, as they are part, all in part of, those who have not spoken here today, I'm speaking on the legislation and the policies concerning mining companies as we do not, are not really involved in the policies and the regulations, but those that are going to have an effect on the wildlife and seems the only thing that we really work on is we don't really work with the mining companies, per se, but with the ability that we were able to, we're now able to work

because of the land claims agreement and, and the land use policies. Today the Nunavut wildlife they have not been working hard on this and they're going to be following whatever policies that they are set for them and, but I have a better understanding. We've got to keep that so that Nunavut wildlife plan could move forward. But the meeting that we have, I don't, we've got to try and get information. Those who are working in the mining companies and those who are saying so that people can have jobs who are saying, you know, it's not very dangerous and those from, concerning uranium and it was not, they gave us good information on the effects of uranium that were made. And the people of Baker Lake who spoke on this, I'd like those who are in support of this project, proposed project and those who are against, those who, there were, I noticed that there were four people who were against, opposed, and there were nine people who were in support, and there were, I think there were six who were, who could go either way. And so it is a little hard to say so to which way we might be able to go. Obviously we've got to keep in mind our wildlife because it is those who are not, if there are no more, our life, our life as Inuit would be seriously affected. And if we are not able to harvest our wildlife or look after our wildlife and there's no more side, you know, the work that they should not affect in one way or another and in a negative way should not affect any of the wildlife on our lands. And those who spoke from yesterday to today, I'd heard from, you know, they've got to seriously think about especially the caribou calving areas and the migration areas. And this is, having heard this, this is true, but I'm also saying that because we're planning on this and we have not too much, heard too much on land use for mining companies. Because it is not the type of work that we as Nunavut Wildlife Board deal with. And so, and I'm very thankful that I was given a chance to speak on this and also thank our facilitator, who has given me this chance to speak. Thank you. (End Translation)

---Applause

MS. FILIATRAULT: Thank you. My name is Dionne Filiatrault. I'm the acting executive director for the Nunavut Water Board. To my left is our acting chairman, Thomas Kabloona (sp), who is a resident of Baker Lake. I just wanted to start off by addressing, the community has raised several questions this evening that relate directly to the Nunavut Water Board's mandate with respect to water quality, some issues were raised, waste disposal, impacts from waste disposal, reclamation, clean up. The Nunavut Water Board has heard what the community representatives had to say and will consider those in any future decisions that this board may be required to make.

The Nunavut Water Board, for people who are not familiar with what our mandate is, we are an institution of public government created under Article 13 of the Nunavut Land Claim Agreement. As an institution of public government it's key that we hear from the public. So we welcome all your comments at any time.

We are responsible to ensure that the fresh waters of Nunavut are protected for today's generations and future generations. And how we do that is we issue water licences. We issue water licences to communities for their infrastructure and we issue water licences to the mining industry.

As a result of today's, this workshop that we're attending now, it's our understanding that no decisions are being made at this meeting with respect to full-scale uranium development. But I can confirm for the community members that the Nunavut Water Board has issued water licences for uranium exploration in this region and those licences include terms and conditions for the protection of fresh water. We have terms in those licences that ensure that companies are going to clean up. We tell them how much water they can use, where they can use that, and we consult with the public before any of those licences are issued.

So on that, I thank you for the communities comments, I thank NPC for allowing us to make some final remarks, and good night.

---Applause

FACILITATOR: Yeah. On behalf of NPC I'd just like thank everybody for coming to the meeting today, especially the people from Baker Lake, to express your concerns and your opinions. As we've said earlier, there's no decisions being made. This is an opportunity to voice your concerns and your issues. We have recorded everything and all the issues and concerns from the people in Baker Lake and the region will be included in our written report that will be made public to all of the IPG's, the hamlets, and anybody that has an interest. On that I'd like to close the meeting and thank everybody for attending tonight and taking time out of your busy schedule, and we'll see you back here tomorrow morning at 8:30.

---Applause

INTRODUCTION – Thursday, June 7th, 2007

FACILITATOR: – invite Mark Kaliuk (sp) to give us our opening prayer.

Opening Prayer

MR. KALIUK: (No Translation) Amen.

FACILITATOR: Thank you. Welcome back. Today we've had the last two days of presentation and some questions and discussion. We had a good session last night where people raised a number of issues and questions. Today we're going to put everyone in the room to work and try and flush out some of these issues and follow up on some of the things that we've heard. It's a chance for many of you who haven't had a chance to speak yet to speak in the smaller groups.

We're going to divide ourselves into two groups. One group will remain in this room here. We've got another room upstairs that we'll put the second group in. The groups will spend about two hours by themselves with facilitators and recorders and we'll come back and present a summary of their findings to the main group.

We will have two topics of discussion. One group in the morning will discuss issues related to the environment. The other group will look at health and safety. In the afternoon we'll switch topics for each group. So you will have an opportunity to address both of those main subject areas in your group. The group going upstairs will be discussing environment, and health and safety will be in this room.

We will have obviously the audio set up in here with translation and the earpieces. We've got similar set up upstairs except we don't have the amount of headsets, so there may need to be some sharing of headsets upstairs.

To help stimulate the discussion, based on what we've heard over the last two days and last night, we've formulated a number of broad questions or discussion items to help stimulate discussion. Within those areas we'll try and tease out some of the people's concerns and ideas. There also will be an opportunity if those broad areas don't cover your specific concern there'll be an opportunity to raise other concerns. And what we're really hoping to do is identify those issues of concern and frame them in a way that looks at how are they, what's the current state of knowledge on those issues and the related processes that may address those, and really identifying gaps that may need to be filled to assist future decision makers down the road. So what's the current state of knowledge on these different issues or topics and what are the gaps that need to be addressed to assist decision making in the future.

As I said, there will be two groups. There will be a facilitator, a note taker, and a rappateur, and they will, at the conclusion of each session, will come back and present the results of the discussion of each group to the group at large. Then we'll break for lunch and the groups will switch and we'll do the same thing after lunch.

We have, as you know, some of the people here have excellent technical knowledge. We will be on certain aspects assigning those people to specific groups, whether it's health or environment, so that they may be able to provide some answers or information

on specific topics. But the focus is really to have people here from the region and the community in particular identify issues and topics that need further discussion.

There will be both here and upstairs, it will be recorded for the meeting record, but at this point in terms of what we present today it will be a summary of the discussion. Again, we'll have translation upstairs. As I said, there may be a need to share some of the earpieces.

And so, I'll be going upstairs with Heidi and a couple other resource people to discuss environment issues and Sharon will be leading the group down here on the health issues. And we'll switch the actual groups in, after lunch. Those people upstairs will come down here to discuss health and vice-versa.

What I'd like to do, I have some specific assignments of groups for those resource people and then I will make a general split of people amongst the two groups and would ask that for any of the organizations or governments or sectors to, if I don't split you relatively equally if you could split yourselves up so that we've got a good cross-section of all types of participants in each group.

But in terms of the resource people, we'd like to have in the health and safety group down here, I've got Doug Chambers, Gordon Edwards, Graham Simpson, Betty Hutchinson and her group from the environmental quality committee. In terms of the environment we'd like to get Dr. Lee, Soha, Monte, and Alison upstairs. And we'll, I'll split the groups here in just a moment.

We've got a number of broad questions that the facilitator will pose and will work through those, as well as providing opportunity for each individual to raise their specific issues if we don't cover them in the broad group or the broad questions. So again, what's the current state of knowledge and what are the gaps is what we want to focus on.

So with the resource people assigned here to the two groups ... Okay. I've just been informed that these earpieces will work upstairs on channel three, so if some of the people going upstairs could take those earpieces up and leave enough for the people down here we'll have, you know, I think there's about 80 or so people. So if we get 20 earpieces going upstairs that would be great.

In terms of splitting the two groups, you will get a chance to participate in each session and essentially I'd like people on this side going all the way back here on this side going over, upstairs to the environment group. On this side on the health and safety group for the morning. And we'll split. Again, in terms of your organizations, if you're all sitting on one side of the table if you could split up amongst the groups. We're, we don't need exactly equal groups, but we want to have them so there's enough of each sector of people that you're comfortable and we can provide you an opportunity to speak.

Is that clear for people? Okay. And within your group it'll be your facilitator's role and authority whether he or she wants to give you a break for coffee or not. But we do ask that, I think we're back at, I think we're back here at 11:30 to do present our results briefly and then break for lunch.

So over the ... Adrian, are there chairs upstairs? Okay. So I think we're ready to go. And if I could ask in general this side of the room to go upstairs, from myself over. And this side to stay here and make yourselves comfortable. We'll reconvene in about five minutes.

BREAK OUT GROUP DISCUSSIONS

Morning Group Discussion on Health and Safety

MS. EHALOAK: – come closer to the front. Everyone that is here this morning is welcome to participate in the discussions. We're going to focus this discussion for the next hour and a half on health and safety issues, and we have a number of experts supporting our group today and I'd just like to identify them. Jen Hayward has been volunteered by Bernie to help transcribe and take the notes. So thank you. Our technical support for this group is Adrian Boyd, our director of policy. And we have the commissioners as well as the chair of the impact review board with us this morning.

So just to identify our resource people. Doug Chambers, where are you? Hi. And Gordon Edwards. So everybody can see. Betty. And Graham Simpson. As well as, where is Doug? He's over here. From GN. Or Peter. Sorry.

So we have this morning, what we'd like to do is just talk about everything we've heard over the last couple of days, all the information that's been shared. I know that everybody has had a lot of information put in front of them. And what we would like to do is take the opportunity to focus what we've heard, identify and share the information. And we've got a number of questions that we've put together to stimulate the conversation and identify basically some of the gaps, some of the concerns, and work towards the state of the community now, identify some of the needs potentially, and what the future growth or how the community will need to look like in the future if the mine or the impact of development moves forward.

So I'm going to read the questions and we only have an hour and a half, so if we can spend maybe half an hour and then get into, if there's any other issues or concerns. So if we can stay a little bit focussed.

So the first area we want to discuss this morning is what contingency plans should be in place to manage potential impacts to public health resulting from accidents or malfunctions? So if, just to give you some examples, if the mine was to go forward potentially some of the incidents or accidents that could happen, some of the contingency plans or preparedness of the community. If we can think about those things, as well as what will it do to the services in the community? How will that affect your current level of services? With development we've heard over the last couple of days that there would be an increase of jobs, potentially people relocating to the community. That would increase pressures on your health system, your social services, the hamlet, your water and sewage. Just for an example Adrian used this morning, with so many extra people in your community there's an extra demand on the water and sewage. The impact that that will have on the overall need for the community to look at what you need to do and how you feel that you could address it.

So with that, if we can open it up we'd like to have everyone participate in the discussion and if we could talk about maybe some of the community members how you're, what you see your concerns might be or the ideas you might have to address some of the potential impacts that this could have on your community. So I'll open it up to the floor. Jennifer is going to take notes this morning. We're just going to do it in point form. This isn't being recorded, this session. We're just doing it in point form so we have the information to take back. And everyone, even if you weren't registered, the people at the back, you're welcome to participate in the conversations this morning, as well as our commissioners up here. Adrian? Oh, sorry. It is being recorded. I apologize.

Okay. I'll open the floor to comments. Questions? Or if you have questions for our resource people. We also have Bob Pollack here from AREVA. He's another support person. And if you can say your name, Becky, just for the record. It is being recorded.

MS. KADLUK: Becky Kadluk, representing Pautuutit and also in education. Also involved in community-based counselling service in Baker Lake. I'll just use Cumberland as an example. They told us that they will not be an impact on services in the community. Health, schools, etcetera. Already with it starting there's people moving in from other communities that will impact health services, education, and other services in the community. We've been told that people will go into the camp for two weeks in and two weeks out. And there seems to be no concern about, especially in the area of mental or counselling services at this moment. But we know as, where there's development, an influx of people, there'll be an increase in drugs and alcohol, even prostitution that happens. There should be services available while they're out of, even out of the mine. We know that there will be an increase in these areas, even though nobody wants to talk about them right now. For those people who work in that field we can see it coming. I'll let other people talk too. Thank you.

MS. EHALOAK: Thank you, Becky. With your comments do you have any ideas or suggestions how you could identify or what potentially could be put in place? Like for example, I know in the other regions, just to speak with, and I have direct experience, when the Lupin mine was in some of the issues that you spoke to, the rotation, the impact on the families, the rotations went anywhere from two-weeks-in/two-weeks-out, four-weeks-in/two-weeks-out and some of the programs that they developed was working with families. For example, when it was mostly the males that were working at the camp, but that's changing. The male would be out for four weeks, work the 12-hour shifts every day straight, come home and think, oh, I'm coming home for a break. I'm going out hunting and I'm going to have some time off and go out on the land. And the wife was thinking, oh, my God, I've been home with the kids for four weeks straight, 24/7 and I'm getting a break. So when the husband came back and the wife, when they joined up their expectations were totally different. One was thinking I'm getting a break, the other's thinking I'm getting a break, and they're both, when they come home then there's conflict. So some of the programs that the mine developed was working with the families and looking at how each could understand what the other was going through.

So when we talk today, if we can talk about the ideas for, we have AREVA here. Bob is listening. Some of the things that you as a community would like to see happen or how

you can support. You have the other resource people here that have travelled. Any ideas or suggestions we'd like to hear that and record. So if you have a comment on that, Becky, if you'd like to, excellent concerns that you've addressed, but do you have any ideas how we can address them?

MS. KADLUK: In (inaudible) we have two community workers, one counsellor. They're both bilingual because we strongly believe that any counselling provided, any person who wants to receive counselling should be able to receive it in their language. Like, when you're dealing with emotions, when you're Inuk it comes out in Inuktitut. So even at the camp, the mine site, if they had a person that people can go to for counselling I think that would be really helpful. Thank you.

MS. EHALOAK: Brian or Bob, did you want to add anything? Could you provide any information on here? Or Betty?

MS. HUTCHINSON: The community vitality initiative that we discussed yesterday just completed a research paper last year on the effect of the work rotation on families and communities. I'm sorry I can't rhyme it off for you chapter and verse. Some of the things that you've mentioned were actually identified in that study. One of the things was communication and some of industry's response to date have been installing cell phone towers so that there's communication with workers. One of the guests who was here earlier today is a site elder and he acts as a resource to people on site.

It was interesting to see the results of the study because they weren't all what one would have expected. But it did identify the difference in expectations as you mentioned. So I can make that available to you if you would like. I'm sorry I can't tel you what all the points were right now, but work has been done on that.

MS. EHALOAK: Thank you, Betty. Maybe if you can share that information with us and that community, that report, that would be appreciated. Bob.

MR. POLLACK: Thank you. Bob Pollack from AREVA. I guess I would make several points. One is that if I look at, I'm talking now in terms of specifically uranium mining, which is the focus of this workshop. If I look at where the areas are that are being prospected being active for exploration, they're far enough away from any of the communities that I don't think we're going to have a daily commuting type of work schedule. People are simply not, it's too far from the nearest communities to drive back and forth on a regular daily basis. So we're going to have a type of operation that's fairly similar, I think, in many respects to what we're familiar with in northern Saskatchewan, which is very similar to the mining operations that take place in the Northwest Territories at the diamond mines and also at Tahera, the Jericho diamond mine in Nunavut where you have a camp at the site and the workforce commutes in for a schedule. Our most common schedule in northern Saskatchewan is seven-days-in and seven-days-out. There seem to be some advantages to having a shorter cycle. Two weeks or even four weeks can get to be a very long time. So we have for many years been a week in and week out type of schedule.

We have multiple pick-up points across northern Saskatchewan so that the northern

workforce can continue to live in their home community. You don't have to move from where you currently live to some place that you perhaps would rather not move to. You can stay in your home community and we have both planes that fly workers from the south, plus we have a network of pick-up points, I think there's something like 14 total between Cameco and AREVA. Some of these pick-up points will just be one, two, three people picked up. So clearly we're using quite small planes to provide those services. So I would anticipate that for a fairly substantial project is this model of multiple pick-up points would certainly be one that would be fully looked at. I don't think there's any desire to cause people's lives to be disrupted. That they don't have to move from Whale Cove or Arviat or Rankin, Baker Lake. Clearly those who live in the closest areas have a shorter commute, but –

MS. EHALOAK: Bob, could you speak to Becky's issues? Like, provide some information around what support the mine has for families or for the workers?

MR. POLLACK: Yeah, I think I'll turn this over to Brian Reilly. I just wanted to speak to the commuter lifestyle.

MR. REILLY: Brian Reilly, formerly of AREVA. And Becky, in my past role with AREVA it was as vice-president of Human Resources and Industrial Relations. We talked a lot over the last few days about jobs and salaries and wages. That's a big component of the compensation package. But in addition, there's a benefit package which includes things like life insurance, disability insurance, pension plans, dental and medical plans. But there's also a particular program called employee family assistance program. And this is a program that's offered by Cameco and AREVA whereby individuals faced with some of the issues that you've identified have the ability to access the professional help and care that they need and that they request. This is, it's not a service provided within the company. We contract this to professional services who have a stable of individuals, a stable of professionals who can address these issues on a more personal level.

Now, having said that, and it is a wonderful program and it does work, but we've had some challenges delivering this service to the northern communities because most of the services, as you can imagine, are based in the southern communities. So the concept is good, the model is good, but in terms of delivery more work has to be done in making those programs and that assistance available to the northern communities. So this is a model that would certainly be looked at in Baker Lake and the Kivalliq region. The challenge would be how to find those services and how to deliver to the communities.

MS. EHALOAK: So Brian, would there be an opportunity for the company to work with – you're hamlet based, right, Becky? With the hamlet to develop maybe a memorandum of understanding to enter into an agreement for support services at the community level? I don't know how you're, like you said, you're, I'm trying to identify what the issue is here and how an opportunity to bridge some of the impacts to the community. So putting that out there, is that an option for you? That you can work together to bridge the services.

MR. REILLY: I think that's a great. Chief Cook, you've got some comments, please?

MS. EHALOAK: Harry.

MR. COOK: Good morning. Harry Cook representing La Ronge band, Kitsaki, and Cameco. Sometimes, like, you know, organizations identify health as a balance. The way we identify it is that physical health is very important, mental health is important, emotional and spiritual. And if we can balance all the four it makes a holistic sense to all of us. I think it's very important for mining companies to make available, and they do, I know Cameco does, physical equipment to make sure the bodies are healthy and in good tuned up at the mine sites. And I believe we also have mental health workers to deal with emotional and some of the spiritual stuff that people have to deal with. So we have to have a holistic approach to have. It's not only physical because it also involves other things, such as your mental stability, your emotional feelings. Spiritual is personal, but nevertheless it still enhances the balance within your well being.

MS. EHALOAK: Thank you, Harry. Becky, could you speak to the level of, so for everybody, the level of mental health services or counselling services that you do have currently in the community? And then potentially with the growth maybe we can look at what are the gaps and what would the future needs be to address the impacts if it went ahead. Harry?

MR. COOK: Yeah, I'm going to do a little promotion here. As I mentioned yesterday, Lac La Ronge Indian Band has 14 different companies. When I sit on my tribe we worked with Great West Life Insurance. We have a life insurance policy that's tailored to First Nations people. Particularly to treaty people whereby as a recipient today, I'm 64 years old, all my income from my insurance from RRSP comes tax exempt as I get it on the reserve, so the government does not take a lot of my pension in retirement. So we do have that policy, so if communications or other things up here, like, if they need more resource material Kitsaki is a wonderful marketer and we do stuff all over the world. So if you need information technically, even in health services, we can provide much information. Thanks.

MS. EHALOAK: Thank you. Peter.

PETER: Yeah, but how do we know that the, with the Betty's concern, I mean, the mine might turn around and say we're not responsible for this, we're not responsible for these issues. Your government is the one who should provide that. The need in the community. So is the proponent, are they going to make their concern be known to the Government of Nunavut and say look, you need this service in the community. You've already got it, but it's already too small. How does the community going to be able to, you know, justify that to the government? The government might turn around and say no, we can't, we don't have enough money.

MR. COOK: I'll try and answer it the best way that I can. Being a board of director of Cameco for 15 years now, we developed a lot of strategy to do sustainable development. What we looked at is safety of the workers and the area where we operate. We also look at the health of the community and the people that participate in

our industry. We also look at the clean environment where we operate. So we take responsibility for all those. And I'm not sure whether AREVA has the same standards or not in the mining industry. I'm sure that they do. But Cameco is the leader in the industry and we try to look at all aspects of the well being where we operate, including the people that do work and also the communities that work within the operations of Cameco. And we operate all over the world. It's not only North America. We operate in Australia, Asia and different parts of the world. And we try to treat people with respect the way we operate, respect their needs, and we try to deal with every concern that comes about in the best possible way that we can.

MS. EHALOAK: Thanks, Harry.

PETER: Yeah, the other question I've got is that the talking about the influx in the community. I agree with the guy over there who said that the mining side is going to be a long distance from this community, but you have to remember that this community is going to be the closest to that place and the family members who's going to be working out of there might want to move into this community from Arviat or Rankin, Whale Cover, or wherever. So you might say that, yeah, I agree with you that the mining side is going to be distanced from here, but this, you have to remember that this community is going to be the closest community to that place. So the family from Arviat or Chesterfield or Coral Harbour might want to move here.

MS. EHALOAK: Thank you, Peter. And that goes to growth. I don't know your name, so the fella in the back there.

MR. UNGULIAK: Silas Unguliak (sp). I'm listening to all the concerns coming out. I have some experience working at various mines where we were given four weeks in or two weeks home. And you can't just go in the mine without being trained or instructed otherwise. Your family, yourself, you are talked to. All the concerns come out in front. And relating to alcohol and drugs, it's individual how they're educated. Whether the parents have a close relationship with their kids or whether they talk to their kids or not. I see a lot of kids that just roam around parentless. And this has always been an issue. Even if there was no mine or nothing going on, there's prostitution. Doesn't matter where you go, what you do, this will never stop. And I think that we should really focus on educating everybody on training or all the safety issues that come out. You can't just go into a mine and start work. You have to learn all the rules of safety. Safety is always the number one issue. And before you go to a mine you are taught with, you have a counsellor at the mine. It's depends on what mine has aboriginal or just whatever. But everybody goes by the same rule of safety issue. And everybody where I work you get searched in and searched out. And I never had any problem. Like, family-wise we talk, we both take a break. But like I said, it's to individual person, how they feel, how they understand. And this is all I wanted to present out. Thank you.

MS. EHALOAK: Thank you. Okay. I've taken a number of names. I'm going to go in the order of the names. But just to recap what you're saying, so it's important for education, training, safety, and good communications. Okay? Does that capture everything? Okay. Next on the list, Peter. Yes.

PETER: (Begin Translation) Thank you. My name is Peter. What I would like to talk about is about the surrounding areas of the mine, but not so much as it affects people. (End Translation) My concern has more to do with environment than social part. We can deal with the social part when those things begin to happen, but I think what we can be concerned for now with me anyways is the environment part.

I worked underground before in Vinley (sp) and I have a bit of knowledge of safety. And also I have been down to Saskatchewan with that uranium mine. And looking at those two mines down there in Saskatchewan and Manitoba are different from what they will have up here. Big different.

I'm being distracted here.

I drove around yesterday and this morning looking around town. I went towards the new road they're building and also I went by the sewage lagoon here. I noticed the sewage lagoon is behind the hill and it's just a sewage lagoon. There's not too much danger to it, but I noticed it seeping out of there into the lake further down and I don't know from that lake where it goes. It might be going into the big lake here. I don't know. But the water has a very funny way of getting around. It can go through ice. It can go through rock. It can break the outcrop and also if you, when you fly over the lake here you will see pressure ridges. The lake, it's got a big crack because the pressure is too great from, I don't know, maybe the ground, or the ice is expanding and it happened on the ground with small lakes.

I come from Arviat and it's the southern most Aktivilluq (sp). We're not too far from Manitoba border. When I go around hunting I usually notice the ground has been pushed up because of ice pressure from the bottom because there's free water that wants to get out and it's pushing the ice and it cracks and whatever is underneath the ice comes out and is kind of yellowish because the ground at the bottom has come up.

And I have been to Saskatchewan. They have a very nice, very deep containers to hold the water in it, but can they do the same thing up here? Can they hold the water in there? Even if they could, you would also notice we have very, very strong winds sometimes and it blows like crazy. When you are landing here you will notice the sand has been blown all over the place. And with the uranium, I don't want that to spread all over the place.

I am for the mine. I want to see the mine built up here. Uranium mine. I want to see that. Because I want to see the jobs being created here. I want royalties for our government., but the concern I think has to be steady before it is created. Mantna (sp).

MS. EHALOAK: Thank you, Peter. Bob, did you want to provide a response or any information in that regards?

MR. POLLACK: Bob Pollack. Yes, with respect to the question about can we hold the water in, the method that we use in Saskatchewan is to keep the water level in the pit down below the natural water level in the surrounding area. So everything runs towards the pit. Now, clearly there is some differences in detail, but we do have cold winters in northern Saskatchewan, so the basic concept of having the water run from all directions

to be collected in the pit and then treated before release I think works.

Your point about the wind is well taken. I've been outside here when it's been both in summer conditions and in winter conditions and clearly the wind was a constant factor. It seems to blow all the time. So the means by which we would need to control dust again, if we put the tailings into a pit under water that pretty much deals with the dust issue. Clearly we need to look at how one best controls dust during things like mining activities, but I think the basic concepts can be translated to the North. Clearly there's many differences in detail and that's what we would see the detailed type of assessment that would be made of any specific proposal as the avenue where one looks at the potential impacts and the mitigation measures in much more detail than we could go into today.

MS. EHALOAK: Thank you, Bob. Gordon, do you have a comment that you can share with us?

DR. EDWARDS: Yes. I think the wind up here is awfully strong, as I've experienced first hand, and there is a good deal of dust that does blow around from the ore that's being transported out of the mine. It's not only the tailings, which are managed, but the actual material that's coming out of the mine. It's important to realize that this dust is not only toxic in itself, that is radioactive, but it's also the source of other radioactive materials, one of which is a gas, the radon gas. So as you spread the dust around you're also spreading the source of radon gas, which then disseminates over a larger area. There's been very little talk about the particular radioisotopes Lead 210 and Polonium 210. Lead 210 and Polonium 210 are distributed mainly through the radon gas that comes off. And that does get into the vegetation and that is a concern for the long term, especially. Lead 210 has a half life of about 22 years so that over decades it gradually builds up and accumulates and becomes a growing problem.

MS. EHALOAK: Bob. Peter.

PETER: It's true that mining activities release dust and radon, but there are many studies in northern Saskatchewan, for example at Rabbit Lake. If you look at measurements of radon and lead and polonium, for example, in lichen, which are very important, as you go from one side of the site right through the operations to the other side there's no difference in the measurements of radon or lead or polonium. So yes, there is some addition from mining activities. But it's so small that it can't be distinguished from natural background.

MS. EHALOAK: Okay. I'm going to move on because we do have a long list already of people that would like to speak to the issues. Next is –

UNIDENTIFIED MALE SPEAKER: Sharon. I might be wrong, but what I seem to be hearing right now is concern about the environment and I thought we're not covering that until this afternoon.

MS. EHALOAK: Well, we're covering health and safety and some of the issues that Peter brought up have a health implication. So some of them are grey. It is a health issue, so because it has an impact, it's environmental but it's a health issue because it

impacts the plant life, human, food chain, water system. So some of the things of what needs to come out here is, one, how do you contain it from what Peter is saying. He supports it, but he wants the information and education for the community as well as from the industry. How you contain it. Gordon identified the risks of if it's not contained, the blowing around, because it has a health risk. So the cross over. So some of the contingency plans that may have to be put in place, opportunities to talk about them as well.

UNIDENTIFIED MALE SPEAKER: With all due respect, I think this is a most fundamental health issue that could possibly be dealt with with respect to uranium mining and I think this should be explored further. If there's reliance on studies I think those studies should be in the matter of some further exchange between the different sides on this issue. Because we're talking about fundamental threat, not only to current life and health of people in this community and in other communities who provide workers to this area, but we're talking about anyone that eats caribou, anyone that eats mammals from the sea. We're talking about something absolutely fundamental and this should not be glossed over. This should be dealt with intensively.

MS. EHALOAK: Yeah. And the other issue that Peter brought up is the water and sewage. We see currently that even with the population where it is today Peter identified that he saw that there was the sewage lagoon is seeping over. So if there was growth to the community what infrastructure or what would the hamlet have to do to address relocating or potentially making that sewage lagoon bigger. So that's another issue as well that would have to be looked at. But if those studies could be shared – it's Gary, right? I'm really bad with names, you guys, so if I get you the wrong name I'm sorry. Doug? I was right. Well, I called Peter Doug and you Peter. So there you go. Anyways. The next speaker we have is Joe. Joe at the back.

JOE: Thank you. My name is Joe Abluto (sp). I'm the KIA director and the chair for the clerk, DEA member. Having been born and raised here, had the opportunity to work from late '70's to last fall. So I had the luxury of not being able to be concerned of my children, about their health and what they're going to eat. Not working since last fall, I've experienced how health can affect a family. We're both working and since the time, experiencing first hand of what a lot of the people of Bake Lake have gone through for, let's say 20 years. When you work for so long you have that luxury and when it's gone it affects the health. I noticed a change in my family. But the other day I had a chance maybe to get back into the working field and as soon as I mentioned it it was a different atmosphere, not only for myself, but for our teenagers, the ones we always talk about.

I have my reservations about this uranium. I'm not saying I'm against it or for it, but I've heard over the time, like, let's write letters and propose it through the government. Well, I wanted to ask how many more letters? How many more proposals? How many more meetings? There's no more jobs going to be created from Nunavut. We are thankful for the jobs that we do have, but I don't believe that if we write it with hundred dollar words it's, there's not going to be any more creations from the Nunavut government or NTI. We have to accept it. The mining industry, with the mining industry, not just AREVA, we have a chance.

We always say our children, our children, our children. Well they want to work. I know some students that have graduated in the last three or four years, they are in college, in university, and I know of two that are studying environmental issues. When I asked them, they said they may be young, but they're fully aware of the hardship of growing up, of not being able to get items, not being able to get the things that the working few take for granted.

And I've seen some of the guys working up there, growing up. We always hear alcohol and drug effects. Well, when we were in northern Saskatchewan and on my way home through Winnipeg, listening to the people that are alcoholics or drug addicts or gamblers, they will tell you we do it because we need a job. I met a couple people in northern Saskatchewan just on the side, on the road, on the street. When they ask me where I'm from, I mention it and right away they said that they were full-blown alcoholics. But since they been working for the mine they've had alcohol treatment. They were able to buy houses. They were able to buy stuff. Sometimes we think too much money will create more problems. Well, sometimes lack of money will create more problems.

The other thing that through community concerns, birth sites, spiritual sites, burial sites. Those sites affect the elders. And when the elders get affected, well, the first one that's going to hear it, family members. I know in this community there's one part that was affected. I believe it was about 40 years ago. To this day it still bothers some people. If we ask the mining industries, let's just say for a minimum of one-mile radius to stay away from these, the people that we have met with, they said we have no problem staying away from these sites.

We may think, you know, alcohol and drugs and all these other issues are going to increase, but if we ask those that went to various treatments they will come back and they say, once they started working. I just talked to a guy last night. The poor guy had it rough, but when I talked to him I've never seen him so happy. He's about 30, 35 years old. And the dreams that he's coming up with. He said once in for his life he doesn't have to depend on his mother, on his parents. It's just that opportunity to work.

But I would like to, I agree with the caribou crossing grounds. Yes, it does affect us, but a lot of, as we know, the migration is changing. A lot of people say the global warming has effect on the caribou crossing grounds. Last year we saw animals that we've never seen. And we were just at a different place in a different community and they were saying the same thing. That has no mining industry around there. They're seeing different types of wildlife. The wildlife is changing. That's beyond our control. I mean, we can meet all day and discuss it, but that's beyond our control.

But getting back to a lot of these younger people and the generations, if we're going to help them, like they would say, actions do a lot better than words. I wish we had a simple solution. Like I said, the ones that concern the elders the most are the spiritual sites and the birth sites. And when we told them that we were going to make a recommendation to the exploration camps, stay away from a one-mile radius, the elders that did hear about them they mentioned themselves that they were able to sleep better knowing that their loved ones that were buried are going to be untouched. Thank you.

---Applause

MS. EHALOAK: So, Joe, just to make sure we've captured Everything in the notes, the lack of employment has an impact on the overall health of the family. That it's very important that the spiritual sites or traditional sites be respected and identified. And that the elders are aware of that and information is given to them so they understand that that's not going to be affected. And the overall economic opportunity is something that you think is a positive to be embraced. And then the caribou, respecting migratory pass and impact that it would have on the overall animals. Is that, does that highlight your points? Okay. Okay, the next speaker is Sandy.

SANDY: (Begin Translation) Thank you. My name is Tungala Sandy. My concern is, in regards to this I'll speak Inuktitut. In regards to, while we're here in Baker Lake there are not too many animals close by, although we have seven communities in our region of Kivalliq. There is fish, caribou mainly in the mainland. This is where the habitats, where the fish are or the caribou are in this area. When we visited Saskatchewan their lifestyle is different and also in the mining. Their mining companies are open pits. When they're open, when they're exposed they're very, very deep. The open pits are very deep. When it's open to the air is that going to be the same case as here? This is my concern. Up here the winds are very strong. We have no forest, no trees for shelter. If the mine were to be opened the dust, the sand would blow. For example, it would spread the contaminants, the chemical from the mining open pit. It would spread. We have several communities in Kivalliq, in Baker Lake. They mainly live off of fish and caribou, like I was saying earlier. This is their main, that's what they feed off from mainly. And I think our land is more, it will be more sensitive to that is foreign to their land and I think we should be focussing on these two issues mainly.

I understand the tailings going to be needing the water, fresh water for the tailings or in the mill. Definitely that is going to be needed and it's good to see some opportunities if they will occur. I don't know for how many number of the years it's going to be open. And if it was to be abandoned or during the decommissioning, like up here through our KIA office we also responsible for cleaning up the DEW lines. I mean, it's affecting our land. We normally work with other companies or INAC when they have to clean the DEW lines. What about, for example, like, in Whale Cove, I'll just make an example of that. As in Whale Cove. But we like to see more, like, everything when it's approaching reclamation and I think we should be given more information and what's going to be waste out there we should be informed all the time because we have bad experience in the past with the DEW line cleanups. And even up to now.

Like I said before, there are seven communities in Keewatin and in Kivalliq and the people here in Baker Lake, they feed off from fish and caribou mainly. That is the elders' concern. I know a lot of them are not saying anything, they're not approaching, they're not attending the workshop. People attending workshop here, they're not saying anything.

And also, from the Thelon River, the river flows. It's ... it gets so strong when it's flowing and it flows up to, it rises 40 feet. And it gets so strong and so forceful during the certain

season and this is one of my concerns. During the winter months Baker Lake community in this area we get big blizzards here and it's totally different climate from Saskatchewan with strong winds. In the winter time it's very, very cold. During the blizzard, during the snow storms some people can get lost easily when they're out on the land.

When they want people, I know this is going to give job opportunities to our region here. We are aware of that. But still we have to talk about our concerns. It's on our behalf. That's all I have to say for now. Thank you. (End Translation)

MS. EHALOAK: Thank you, Sandy. And I'm watching the time and we have to come back together as a group in an hour. So it actually, your comment transitions into the next area that we want to focus on. And that is what are the baseline studies required to develop the state of knowledge on health? What is currently happening? What is needed? And maybe we can share some of the experience of what happened in northern Saskatchewan. And everybody's comment is really good. We've got a number of people that still want to make their comments, but I need to keep the workshop so we do get some data on these information that were – hang on one second. I'll just, I see – that we've talked about over the course of the last couple days. So if we can shift gears and we can move into the next, so if we can think about, Sandy just brought up a really good point of information. To state where we're at. The baseline. What's currently happening. And then experiences. Bernie, really quick because the list is really long of people to talk.

MR. MACISAAC: I just wanted to make just a quick point that before any mine is put into operation there will be a very intensive assessment of all the ways that that mine is going to operate. One of the particular important things about that assessment will be seeing what risks are identified and the reaction of the operation to those risks will be very, very important. And just picking up on the point of reclamation and decommission of the mine, before any mine goes into operation money will actually have to be put up to the government to ensure that if something does happen that there's enough money there to actually clean up that mine at the end.

MS. EHALOAK: Thank you. Ray.

RAY: I want to make a point about baseline studies. The reason why there's so much wind in the Arctic is the simple fact that all the warm air from the tropics goes north and it deposits all its pollution into the Arctic and Antarctic. It's a simple geographical fact. And it's knowledge now that there's a lot of pollution arriving in the Arctic and the Antarctic as a result of the industrial activity in the South. And just to prove that point, in the early 1900's when gasoline was first used tetraethyl lead was put in as a way of anti-knock agent. Within 10 years of the use of the use of that in the northern hemisphere it was already present in the ice in the Antarctic. So you have to be realistic and realize that there's a lot of pollution now occurring in the Arctic that is background to any health study and environmental studies that go on here. And they need to be done by the federal Department of Health or the Nunavut Department of Health, by the departments of Environment, to set the standard for any kind of studies, whether you have mining or

not. Particularly if you have mining, it's going to be very difficult to be able to distinguish what if any effects might come from mining and what are the realities of the environment as they exist now. I'm sure that there's some of the changes in the caribou, changes in the pattern of the environment up here are very recent and they're starting to cause confusion about health studies anywhere in the Arctic.

MS. EHALOAK: Thank you.

UNIDENTIFIED MALE SPEAKER: I just wanted to make a point also. I think that when, just before we leave the subject of health directly, there's two types of health. There's the operational phase while the mine is operating to try and safeguard health. And there you have a large organization that is on the job and is able to mitigate the situations that arise. There's also the long-term problem when the mine has been abandoned. And I think you have to think about both of these. Now, the price of uranium has gone up by a factor of almost 10. It's 10 times more valuable than it was a few years ago. But the cost of operation has not gone up so much. So it's quite possible for the mining company to do things which are much more, which are a little more expensive. And one of those things would be to take away all the radioactive material which is posing a long-term problem. So that could be a condition for mining. The volumes are not large. It turns out, for example when I mentioned Polonium 210 earlier, this substance is not large in volume. It's billions of times more toxic than cyanide, which is a fast acting human poison. So it means that you could cut a lethal dose of cyanide down by a billion, into a billion parts and each part would still be lethal and smaller parts than that would cause cancer. Now, that quantity is not so large and it can be removed by the mining companies. So if they extract not only the uranium, but also the radium and the thorium, which are the parents of polonium, then the long-term security is much greatly enhanced. I just wanted to make that point. Because I think it's, we have heard in the past how they have made improvements, and indeed they have in the containment of tailings and the management of tailings and so on, but further improvements can be made and this is one that obviously comes to mind.

MS. EHALOAK: Thank you. So just to recap, for the baseline we need to identify what information we're going to gather, what we're going to start looking at, and how we're going to track it and identify it. And also to communicate how that information is going to be shared.

I want to, all the resource people are speaking, but we have a number of community people that want to speak as well. So I'm going to alternate. And so the two topics that we looked at was the impact to health resulting from accidents and malfunctions, and then we've shifted to the baselines, what we need, what's the state of knowledge now, what's happening. What we need to do to be prepared. And then some of the experiences that we can learn from.

So Joan is the next speaker. I'm going to ask you if you could give us your comments on that, Joan.

MS. SCOTTIE: Thank you. I'll be talking in English. I think some of you know how I am. I'm Joan Scottie. I'm here. I have been here my third day today to represent two

committees. The Hunters and Trappers Organization gave me ideas what I should say and how I should represent them, but I didn't have enough time to complete my presentation yesterday, so I will just make a mention a few things here. Some of the issues that hunters are concerned about.

MS. EHALOAK: Joan, can we, in keeping with, could we keep the issue focussed to the topic, though?

MS. SCOTTIE: Yes.

MS. EHALOAK: Thank you.

MS. SCOTTIE: We have to remember that health and safety issues, whatever, is, should be focussed with the communities. We're not Saskatchewan. We're Baker Lake. We're Nunavut. We are here. Our land is different. Our environment is different. And ... We heard yesterday that some very disturbing talk. A lot of people you heard are upset. Because in the first stages we should be part of the decision making. Just when it's time for me to, what I collected here, and then we change over to a different topic. So I'm a bit lost. But I'd like to continue with this here. Presently we have HTO gets a lot of document that we're supposed to comment on to protect what should be protected out there. Also regard to hunters' interest. What we wanted to say was Baker Lake Hunters and Trappers Organization alone cannot enforce regulations. But we do get a lot of complaints. So what we wanted to propose was that both federal part of the people like Indian Affairs and our aboriginal organizations, NTM, NTA, and KIA should establish an office here in Baker Lake to enforce land use regulations. We have a lot of activities here. Exploration and other projects. We need somebody here to enforce, to go out there and see what is happening. We're in the first stages. We have been, I feel, spending too much time discussing other issues that has nothing to do with us. Like global warming. Baker Lake can't do anything about that. Even if we open all the mines, uranium mines, it's not going to help the global warming. All that stuff should be put aside and focus on the local issues. Long term impacts.

Yesterday a few people mentioned about, we heard, never mind our traditional lifestyles. We are today's Inuk with technology. But this our roots, we shouldn't forget our roots. When our roots and traditional cultural part of our life is put aside there's a big disruption in our lives. Young people get confused where they are, where they stand are the issues here.

This is just a few things that I wrote down. Like I said, we switched over the topic here, so I'm kind of lost. Thank you.

MS. EHALOAK: Thank you, Joan. So just to recap and make sure we've got it all. Monitoring, there's a need to identify monitoring. How it's done. What we're going to monitor. And how that's brought back to the people. Partnerships between the different levels of government. Working with the people that are here and respecting the culture. Recognizing there's generational differences and how we bridge that and how the community can work together. And when we're looking at development you're saying take the long-term perspective. Is that, is that? Joan?

MS. SCOTTIE: Yeah, that's about covered it.

MS. EHALOAK: Okay. Thank you.

MS. SCOTTIE: Thanks.

MS. EHALOAK: Did anybody from industry want to comment on the monitoring piece or opportunity here? Anything? Gary.

MR. COOK: Yeah, good morning again. It's Harry Cook with Cameco. I think it's very important that mining companies definitely take a lot of responsibility and I think we're prepared to do that. The other thing that the community has to recognize and deal with is how long will be the cycle of the mine life? It's very important that we identify it because if it's only short term, five to 10 years, like, a lot of people will create businesses and then it will be a big let down. I think that mining, once it starts, it's got to be looked at how many years are we looking at? Are we looking at five years, 10 years, 20 years or longer? Because otherwise many people that are entrepreneurs might be mislead. And again, that affects health. Like, you know, one day you're making a wonderful income looking after your family and then all of a sudden that's taken away and then, you know, again, like, those kind of trends do affect life generally in health.

MS. EHALOAK: Thank you. Paula, I'm going in the order of speakers and there's a list and you're on it. Okay? Just one more comment that Joan brought up that's very good. When you're looking at how you prepare yourself and what's the knowledge or the state of knowledge that you have, where is it all located? What's been done in the community to prepare? Is there a community profile for services? How, as we focus in our conversation let's look at where that's at. Is the information being shared int eh community? Do people know that? For example, if there was an accident happening that had happened or, like, the mine site's away, but use it if there was a disaster. Or even with power going out. The preparedness of the community. What is the community? What is currently there? What do we have to do to address the future needs? We need to focus that in our conversation as well. Gordon.

DR. EDWARDS: Just to add a small point in that same category is that the mining company is very willing to take on the responsibilities of monitoring while the mine is in operation, but again you have to think about the abandonment situation and the preparedness of the community for perpetual monitoring. Because perpetual monitoring, as Don Lee said, is a requirement. Unless you're going to remove the radioactivity then this monitoring is going to have to go on for generations after the mine is shut down and the community has to have the equipment, the expertise, the training and so on to carry on that monitoring on a perpetual basis.

MS. EHALOAK: Okay. Bob.

MR. POLLACK: Yes, that's a very good point in terms of what are the arrangements for long-term monitoring. Clearly the company's overseen by the regulators carry out monitoring during the operational phase. We're just moving into the post-decommissioning phase at the Cluff Lake site in Saskatchewan. Clearly we are going to be retaining the licence for that site for many years after decommissioning. We will not

be able to put forward an argument that we should be no longer the licenced owner and operator of that site until we've collected enough post-decommissioning information to convince really three major constituencies. One, we need to convince ourselves that we have in fact done what we set out to do. And we have left a site that's safe and stable for the long term. So first of all we have to convince ourselves. We need to convince the public that this site is going to be safe and stable for the long term. And we need to convince the regulators because they're the people that will ultimately make the decision as to when we could be relieved of our responsibility for the licence. And we're just in the early stages of making that first transition and the framework that's now been put in place in Saskatchewan is that once we have demonstrated that we have discharged our responsibilities we're leaving a safe and stable site where people can carry out the traditional uses that that site was used for before we came, the same way that they'll be able to carry them out after we ultimately leave. That that site, the long-term responsibility for that site will pass from us to the government and the government will carry out perpetual monitoring, if that is what is deemed necessary. And as part of being able to turn the site back to the government we will need to provide them with a sufficient fund and it has both components to carry out what are the predicted costs and it has a component that we will simply put money in to cover what might be unforeseen eventualities so that the company, as part of turning the site back to the government, puts up the funding for in fact perpetual care. So this framework, the regulations and act were just passed earlier this year. So there's not obviously any experience in terms of how it actually gets implemented, but certainly the framework is there and there will be other sites, not uranium mining sites, but other old mining sites in Saskatchewan that will be put into this long-term care institutional control framework over the next few years and there will also be, in due course, I would expect we'll reach the point where we can turn over the Cluff Lake site. But we have to demonstrate that we're leaving a safe and stable site for the long term, plus provide whatever money is going to be required for whatever level of care that site will need going forward.

MS. EHALOAK: So that's some very good points. So the clarity around the legislation, regulations, identification of roles for monitoring, who is doing what, how the community is involved and informed, Joan's points, that they have a comfort level, and that governments are and organizations are accountable in following through with what their roles and responsibilities are. Did you have a? Lucasie is our next speaker.

MR. ARAKANA: Thank you. My name is Lucas Arakana (sp) and I'm with the Nunavut Impact Review Board. It's been an interesting last three days and only about three years ago I started working about uranium mining, exploration, that kind of thing. I'm just wondering if anyone in the room knew or knows, and accidents happening to, an accident happened in uranium mining. I don't know what it takes to clean it up or the health of the people or that kind of thing. Because I know that for this kind of thing there was a best kept secret the accidents of the mine itself. Even towards the wildlife.

One other comment that I have to make is that the people in Nunavut, the ordinary people in Nunavut want to continue to eat the country food (inaudible). Because we know for a fact the Inuit when they change their diet in the near past it beats us all the

time. Something else happening. Diabetics. Diabetes. Because they are not used to the food that they are getting from the stores.

I'm also wondering if the community of Bake Lake has some kind of community disaster response team. I'm just wondering. Because if there was an accident to happen then what? What would you do? The environment have to be cleaned up, the wildlife have to be cleaned up, the people have to be sure their health is not going to be affected. Those kind of things.

MS. EHALOAK: Thank you, Lucasie. So what Lucasie was asking, Gordon if you could address the preparedness issue of what is the community, what does the community have now, what does the community need to do for being prepared if in fact there was an accident?

DR. EDWARDS: Well, of course accidents by their nature are unanticipated. So often times one finds oneself poorly prepared. There was an incident in 1979 where a state of the art tailings dam failed catastrophically and a tremendous volume of radioactive tailings went into the, I think it was the Animous (sp) River. And this caused a lot of devastation downstream. They had to slaughter cattle and so on because of the sudden flood of radioactive material into the environment. Now that's precisely why they're trying to greatly improve the tailings containment because when the tailings containment in the past has failed it's lead to extensive pollution which is very, very difficult to clean up. In the Elliot Lake region they had over 30 tailings dam failures at different times. So when you're talking about tailings, that's one thing.

Now, there also are mine accidents. A couple of years ago, I can't remember the exact year. I think it was now three years ago maybe. There was an accident in the McArthur River mine in northern Saskatchewan and very high levels of radon gas, extremely high levels of radon gas, were in the working area. The workers were sent down into this area under emergency conditions without any radiation protection for 48 hours. And unfortunately the regulator, the Atomic Energy Control Board really didn't even reprimand the company for doing this. They're supposed to have respirators, they're supposed to be protected against exposure to the radon gas. So under accident conditions, the mine in order to protect its very large money investment is willing to put the workers into extraordinary situations where they're exposed to large levels of radiation unnecessarily.

So these things do happen. There was also, we've heard about recent accidents. For example, there was an accident just recently in the Cigar Lake mine which has set back the beginning of that mine so much that it's actually boosted the world price of uranium because they were hoping that mine would come on stream. So yes, accidents do happen. Some of them have major environmental and health consequences. Some of them don't. It depends upon the extent of the damage and the people and animals who might be exposed.

MS. EHALOAK: Bob or Peter, did you, you both wanted to comment? Could you talk about the preparedness? What's in place? How it's working with the community. And if there's anybody from the community that wants to respond for the plans that they

currently have in place.

PETER: In terms of emergency response, all of the mine sites have emergency response teams that are made up of people who are on site. I can't recall the precise number, but we have at all times enough people on site to man emergency response teams. And they're well trained in all of the areas that could be important, from fire fighting to underground rescue to spills of environmental spills. One of the things we find is that many of the people that are on our emergency response teams live in small northern communities and these people receive good training at things like fire fighting and first aid, which are very helpful then in terms of their own community's emergency response teams. I know we've actually brought in the fire fighters from northern communities and used our fire fighting training facilities to develop better skills at firefighting at the community level.

There were a number points that Mr. Edwards pointed out. Time doesn't allow us to get into that type of lengthy debate today. I would just point out that at McArthur River there was an independent report prepared at the urging of the union and this report came to the conclusion that the workers at McArthur River and the incident referred to were not exposed to dangerous levels of radiation. I could track down a copy and put it in the record if that's of any particular use. But the Cigar Lake flood, yes, he's quite right. It's an economic setback for the companies. There were no injuries, there's no environmental impact to it.

MS. EHALOAK: Bob, anything that you want to add for the transcripts or for the document, it's' welcome. Any information. But if you could speak to the preparedness. Like, this is, in the community, for example, when – Gordon, if you could just give me a second.

DR. EDWARDS: Yeah, I just was responding to your question. If we could supply any documentation. I have a video here of the CBC report about the 48 hours, which was the CBC's. I'll be glad to give this to the.

MS. EHALOAK: Yeah. To Adrian. So for example, when we're in a small community all of know that when something happens we use our orange radios. Everybody's phoning everyone. And the communication of what happens, I think something to focus on is how the mine or development would be working with the community. So Harry spoke to holistic health. When there's an accident or there's a death because our communities are so closely related people are affected. And those impacts on the community are something that is health related as well. So the communication of an incident, accurate information, knowing, like, what's going on, who's involved in the community to help out. Those are types of issues that we need to focus in as well. And I'm trying to stay, Betty, I see your hand, but there's like 10 people that have continuously want to put their hand up and you're on there. So I'm going to keep going. The next speaker is Joe T.

MR. TIGULILAK: (Begin Translation) Thank you. Thank you very much. I think I will speak in English. (End Translation) I'll switch to my English channel. If you don't mind. My name is Joe Tigulilak (sp). My training –. Yeah. My name is Joe Tigulilak. My

training actually is wildlife management. Nothing much to do with social, mental aspects of life. However, I think since we have broken up into this group, two groups, it's my opportunity to try and speak to mental and social well being of our people that I feel should be addressed. That could be addressed by the industry's help in this case. So if I'm off track, I apologize. Like I said, my field of expertise is not in the field of mental or social well being of human beings. But I'll give it a try by giving you a story first and then make a request.

Before I do that I must, let me say that, let me ask my first question. Actually, I have two questions. Question one actually is related to wildlife. So I'd like a little bit when I started out. If there was an accident involving AREVA in this area when you do start the uranium mining and caribou or fish are negatively affected by the accident, do you have a plan in place to compensate the people of Baker Lake to help them out in finding other sources of food other than caribou or fish? That's my question number one.

My other question will be pertaining to mental and social well being. And like I said, I'll tell you, I'll try and relate you a story before I actually ask the question. We all know that we have lots of social problems in Nunavut. Alcohol-related problems, drug-use problems. Our suicide rate is said to be seven times higher than the national average. We have gambling problems. All of these problems I believe are related to the fact that Inuit values and principles are no longer passed down to the next generation. I'll go back a few decades where Inuit were actually passing on Inuit values and principles in the 1950's and prior to that. I think we all know that Inuit were much healthier in the sense that they might not have been materially better off than they are today, but they were certainly better off mentally and socially because they were being taught what was important in life to them as opposed to today. There's so many distractions today that prevents parents from doing that.

If we go back to late 1950's when the federal government was asserting itself in the North, developing communities, the communities we call municipalities today, including Baker Lake. Our federal government was putting, encouraging, forcing, I'll say forcing people, Inuit to move into larger centres so that children can be taught so that government programs and services can be delivered to Inuit. As the federal government was kind of thinking, I guess, oh, these are Canadians too, they should have the programs and services that are provided to the rest of Canada.

Now, in that process the federal government asserting that idea was so aggressive that up to that point Inuit had already become accustomed to certain commodities that were provided by southern Canada. So at that point the federal government was saying if you don't move into Baker Lake, Rankin Inlet, so that you will, your kids will go to school, your family allowance will be cut off. So that was the threat provided by the federal government to ensure that Inuit did move to larger centres. When they did move to larger centres Inuit kind of stopped talking to their kids because being in larger centres kids were now playing with their friends outside after school instead of being at home to be taught the values and principles by their parents. They were at the community hall perhaps doing whatever kids do in those days.

Some people wonder today why there's so much chaotic in terms of social problems in

the North. These are the sort of things that contributed to these social ills that we have that we see in the North. If you go to any of the 25 northern, 25 Nunavut municipalities now and for the next couple of months you'll see children, you will see children staying out 24 hours a day, 24/7. And that's greatly related to the fact that kids, the parents of those kids have not been taught the values and principles that are important to Inuit or even raising children. So problems will occur when these sort of things happen.

Where I see the uranium industry helping, I'm not sure what the vision statement is of the industry, but I guess my suggestion would depend on whether the industry has a vision statement that's close to what I'm going to suggest. Where I see the industry helping the community of Baker Lake looking at long-term goals is possibly to help out with the community of Baker Lake where family services are provided to young parents. Family services where a young family can actually receive counselling on how to raise their kids. This may be intimidating to some people. Like I said, I'm in the field of wildlife, so I don't know if this would actually be too intimidating to some of our people, but I think we've heard time and time again that we have to grab the bull by the horns. In order to do that we have to deal with the problem, bring out the problems. Like I said, where I see the industry helping is to either help financially or find a way to assist the community of Baker Lake to set up counselling services for young parents so that the next generation will not go through, actually will begin to heal in a way that will be closer to prior to 1950's when Inuit families were much healthier than they are today.

If that makes sense, that's all I have. Thank you.

MS. EHALOAK: Thank you, Joe.

---Applause

Excellent comments. And you know, some of the questions, we need to identify the questions in our processes and I think it's very good, you know, the plan, identification. As well as you've hit on, I think, a key question. When we're looking for family services or support services how can services be designed to incorporate the knowledge from the past generations to bring forward in the future generations and the values and the principles having that transferred and into programs to support families and future generations.

MR. TIGULILAK: One thing I wanted to mention too was if (inaudible) coming up with programming helping families in terms of counselling. I think t his would be, this method can be used by other communities throughout Nunavut which would be really positive, not just for Baker Lake. Sorry. Not just for Baker Lake but for the whole of Nunavut. That's the other point I wanted to make. Thank you.

MS. EHALOAK: So there's an opportunity to learn from what happens here today and transfer it out throughout Nunavut. Really quick, because I want to, the other group has taken a break and I'll ask the group if they want to take a five-minute break, but Bob and –

MR. SIMPSON: Graham.

MS. EHALOAK: Graham

MR. SIMPSON: I just want to ask a question. How is it then that you have to ask the mining companies for their support for this? Why isn't the federal Department of Health and the Nunavut Department of Health doing that right now? That's what I don't understand. In a way your concealing the fact that they're not doing their job.

MS. EHALOAK: Well, that's a question that we can put out there. I'm not going to comment. Bob.

BOB: I just wanted to add one point on the health question and that is, in the United States there are some old uranium workers, not in the mines, but at an enrichment plant in the United States, and the United States government is now offering all these workers no-fault insurance for any cancers they get in a long list of cancers that if anybody who worked at the plant for a certain period of time and who contracted any of these cancers they will get financial compensation without any questions asked. And I think this is a question to ask of the uranium company. Are they prepared to give no-fault insurance to their employees so that the men who are working in the mine or the families of the men do not have to try and get compensation by proving that they were damaged by being in the mine? There certainly are thousands of people who have been damaged in mines in the past and it would be very helpful if there was simply no-fault insurance that was available.

MS. EHALOAK: Thank you. Bob.

BOB: Let me respond quickly because time is passing. On your question about compensation if there's environmental damage. We actually have a formal impact management agreement. It's through something called the Athabasca Working Group, which is a group that consists of the seven communities in the Athabasca Basin and the two mining companies. And there's a formal agreement and one of the components of that agreement covers exactly what you were asking about and for. That yes, if there's damage there will be compensation. So it's actually a legally binding agreement.

On the very broad question around the social issues, I think I need to make it clear we're not the government and we have no desire to become the government or even try to replace the government. But certainly where there's programs that we have, and Brian talked about the family assistance program, where there's programs that we have that we can in effect partner, you know, partner with the community, partner with the government, where programs we have can supplement or extend what's already there, we're wide open to suggestions.

MS. EHALOAK: So would it be fair to say, just so we have it for the record, a gap identification is that agencies or organizations or governments that are responsible for delivery of services need to ensure that those services are being provided in a way that incorporates traditional values and knowledge so services are meaningful for families throughout the community as well. Is that?

BOB: Yeah. We're wide open to discussion where things that could, you know, it makes sense to be in a partnership type of arrangement, but we are not the government

and we have no desire to take over the basic provision of services that one expects from government. But where we can logically help out we're quite prepared to sit down and talk.

MS. EHALOAK: So I'm looking at our time and the third question that we had –

UNIDENTIFIED MALE SPEAKER: Could I ask for an answer on the issue of what is described as no-fault insurance? I think that may be a workers' compensation issue. I'd invite Mr. Chambers to comment on that. Or Mr. Pollack.

MS. EHALOAK: Peter?

PETER: In Canada these issues would be dealt with by worker safety boards or worker compensation boards. And typically with industrial experience in uranium mine the compensation would typically be awarded. I think it's very similar. It's not the same as no-fault, but it effectively would be an equivalent process.

MS. EHALOAK: Thank you. So the last question that we had were the impacts of future exploration and development activities. And not specifically just to the mines, but we heard Joe say that and Sandy that it's really important for economic development to happen and to be able to sustain and move with the future generations. So what are the impacts or what infrastructure will t his bring about to the community and how will this affect the community? So we talked about health and social services, but we haven't talked about – which is part of health, the education, you know, the infrastructure in the communities, the services that are needed to support housing needs. There's a whole envelope that affects a person under the envelope of health. So if we can keep going and just keep in mind so there's, when you have your comments if you can keep the comments to the preparedness for the community, what the impacts would be. I'm just going through the three questions again so we stay focussed on the topics. What baseline studies are required to develop the state of knowledge on health. And when we say health, that's holistic health. That's inclusive of social, mental, physical, spiritual well being. As well as, if anyone wants to share information from what's happening in the region, in the communities, future needs, and anything that we can share or learn our resources from. And the impacts. So I'm going to continue on. Luis, who had his hand going there, and Paul, you're coming up too. You're the next speaker.

MR. MANZO: Thank you, Sharon. My name is Luis Manzo. I'm director of lands of Kivalliq Inuit Association, responsible for implementing our license system and also the terms and conditions that we grant to that licence. So I have a question particularly for, one for the resolutions or scientific power industry and the other one for the Nuclear Safety Commission members. One, what I will direct to the Nuclear Safety Commission, when the Nuclear Safety Commission is going to come to this community and start talking about cooperation agreements in between the Nuclear Safety Commission and the regulators in order to ensure that if the industry will in future development happen we actually be ready to launch any type of inspection, any review or any background radiation on the baseline tests, especially fish habitat, habitation. Wildlife, you name it.

And how often, directed to the Nuclear Safety Commission, how often the Nuclear

Safety Commission inspect during four-month period, one-year period, how many times the Nuclear Safety Commission actually will be inspecting or reviewing the information presented by any proponent of uranium and which are those, which are those bench marks that will reference to actually agree that the project will proceed or the operation can continue.

It's very important that the Inuit be aware that the institution will be responsible for this operation even though they actually here, which I haven't seen them very often.

It's for industry, do they have any estimates done in Nunavut or in the area of Baker Lake in terms of background radiation? And if they do have it, which are the results of those estimate and when those estimates actually will be shared? Because I believe they already have some information, so KIA will be happy to have those ahead of time. So that's all I have to say. Thank you.

MS. SMITH: Thank you, Luis. Fred, did you want to address his question, please?

MR. ASHLEY: Yes. My name is Fred Ashley. I'm –

MS. EHALOAK: You have to turn your hearing watchamadoodad thing off.

MR. ASHLEY: Yes. It's turned off. Oh. This one? Okay? Is it working now? In the (inaudible) briefly answer a couple of points that Luis had brought up. As indicated, Everything is controlled through a licence. And also again, our part in the uranium mining operation starts when the operation wants to go into development. Anything on the expiration and element is covered within the provincial or territorial government organization. But we're here because of providing our input of what would happen if a mining company goes into development. As far as addressing how many, if a licence was issued to a company to develop a uranium mine, our compliance program, we carry out inspections of the licencee. Our frequency is normally approximately one inspection every two months on the current operating sites. But in Saskatchewan as was indicated before we have a harmonized agreement with the province of Saskatchewan where we have a coordinated effort between ourselves, the Saskatchewan Environment, and Saskatchewan Labour to carry out inspections at the sites. Because both parties have a regulatory role when it comes to operating mines. So that we have trained the inspectors of the province to do inspections on our behalf and we share all of that information on a continuous basis. So when the inspector from Saskatchewan Environment or Saskatchewan Labour visits the site they're doing inspection also on our behalf as well as their own. That's only one component of the compliance program.

The other part is the monitoring of the site is a requirement by the, of the licencee to carry out continuous monitoring. All of the monitoring and inspection, all of the monitoring reports are submitted to us on a monthly basis so that it's a continuous evaluation of the impacts or the monitoring results as being carried out and that goes also to the provincial governments. So it's not just an inspection. There's a whole series of activities between the federal and provincial or territorial governments that are carried out when it comes to compliance inspections. I don't want to carry out any further, but.

MS. EHALOAK: Fred, can you clarify I think though Luis asked the frequency of

inspection. I think you've addressed it. Is it specified in the licensing?

MR. ASHLEY: No, it's not specified in the licensing. It's a responsibility for us as a department to carry out that, to establish a schedule and it's again depending on the, it's a risk assessment. So if there is significant issues the inspections are more frequent. If there are less then they would be carried out, but they would be carried out on at least a once-every-three-month basis. And that's all I can say.

MS. EHALOAK: Okay. Doug. I got it right. I keep calling Doug Peter. Go ahead.

DOUG: Thank you.

MS. EHALOAK: Go ahead.

DOUG: I just want to make a few quick comments with regard to Luis' request for background information. And I would like to work backwards. First of all, if it is agreed that uranium development can go ahead AREVA and other companies will have to undertake very extensive studies to determine baseline conditions in all aspects of the environment. But even now there is considerable information available. For example, if you go to the Health Canada website it will pop up and there will be a spot that says search. If you put the word 'caribou' in will refer you to information on caribou. Health Canada has been measuring levels of radioactivity in caribou in Nunavut and Northwest Territories since the 1960's. So there is considerable information already available on caribou.

In addition, and Mr. Jeffers (sp) from a federal government department might comment, but certainly there is considerable information already exists in terms of sediment samples in lakes throughout Canada where you have measurements of uranium and thorium and sediment. You have maps such as are on the wall. And of course any company that's doing exploration will have measurements of external gamma radiation and airborne surveys that measure various things. So there is a lot of information available. Some of it would have to be compiled through the baseline studies, but in terms of things that are of most immediate interest, for example our foods, Health Canada has information that is available immediately.

MS. EHALOAK: Thank you, Doug. Okay, our next speaker is Paula.

PAULA: Thank you. I'm going to try and keep to the issues here or your goals set out for this morning. There are many layers to the uranium issue and parts, to me I see it as a big puzzle. We've got our mine site, which for one thing Nunavut has no trees, as our aboriginal guests from northern Saskatchewan have noticed. That's due to our Arctic environment. We have permafrost and just to pick up on our board members at the front, Joe and Peter and Tomalok (sp) Sandy, Joe Apolooktuk (sp), Silas, and many others who have spoken before me. Nunavut's different. We're Inuit. We have a different culture that has adapted to our environment. Our environment has permafrost. There's never been, we're talking about uranium mining. There's never been a uranium mine in the Arctic. There've, in, with permafrost. And if we have a mine, first there's exploration, then there's a mine potentially, then there's decommissioning. And you decommission the mine site. Will the mining companies be liable for the next 80,000

years until that radioactive tailings, the waste, the radiation that we cannot see, taste, or smell, are they going to be there to continually put in, continually there to put in money for monitoring? I don't know what their definition of long-term monitoring is.

As well, when the community tours were around to the seven communities back in March talking about uranium it was a good place to talk about uranium and mining. And then there was the mining symposium and I heard on CBC that they were talking about the potential mine site here at Baker Lake and that there will be two open pit mines. And there would be an underground mine. None of this was mentioned at the symposium. Or at the community tour. So I was quite shocked to hear that they had actually thought about, well, nobody had said anything about that. So that's just one issue.

As well, the time frame of decommissioning is 80,000 years and to talk about aboriginal people going back in time, let's talk about the indigenous people of Australia and they talk about dream time. In Inuit culture we have our stories and our legends and our culture that's tied to how we used to live and how things were born, spirits, etcetera. As well as Christianity has their stories of time before now. Does the uranium companies for northern Saskatchewan, once they say they close for 2007, in the year 3000 that's – I don't know, I can't think of my math – 998 years from now, what's their decommissioning plan? What's their decommissioning plan for, people talk about decommissioning. What's the next step for those 10-year plans that they're talking about decommissioning. Are they, are the companies going to pass on the monitoring to the communities and then leave the communities with the monitoring for the next 790,000 years? Or is it the responsibility for the mining company? Is it the responsibility for government? Is it the responsibility for communities? This mineral that we're trying to extract from the ground has, it's different from mining different other minerals. There's something that you cannot see and we saw pictures of Key Lake and how they have mine reclamation and they've got trees growing there. It looks good. But what about the monitoring of radiation which you cannot see?

And that leads to scientific studies. Scientific studies are good. You also have to know what are the terms of reference, what is the scope? If your scope is going to be so narrow to say that there's no change we have to make sure that when we read these documents that we can understand them and to make sure that the scope or the range of monitoring has enough time frame to pick up various levels of radiation or, just to get the big true picture of what's actually going on in the environment.

And as a person who graduated from university, I came back home to Baker Lake to find a job. I couldn't find a job in my field. I became a teacher or I started as a teach. I encouraged the students to stay in school because we need to have more Inuit in jobs and it's hard. There are a lot of layers here. Not just that we need to address. There is a social, economic and environment and I don't know how we'll be able to deal with this. I guess all these issues come out at a symposium like this because everybody's passionate about different things. And we've got to make sure that all the players are involved. The people from industry, the people from government, the non-government people, and the people that are, that don't have a voice, that cannot, don't have a way to public government, IPG's, or there's – I don't know what I'm trying to say. I'm just

trying to, hopefully that this will be open and fair to all people. And people can voice their opinion and concerns and this workshop has been very good because we've been able to respect each person's opinion. And I"m not for mining or against mining. I just want to make sure that the information is clear, honest and correct. And on both sides of the table that they give both the pros and the cons from the mining industry and from the environmental industry and the social side. Because all these fit together. You can't separate them. So I just, I don't know. I got too much to say, but I think I'll just stop there. Thanks.

MS. EHALOAK: Thank you, Paula. Excellent comments. Bob, did you want to speak to the decommissioning really briefly? But before you do, we have approximately nine minutes left and I'll tell you who I still have for speakers. I have Dorothy, Willie, Matthew, I think it's Betty, Joe, Peter, and Joan. So I don't think we're going to make it through all the speakers, so if we don't I apologize. But we'll try and max, so if you can keep your comments as quick, as brief as you can. Bob.

BOB: All I would want to say is we came to this workshop to listen, to learn, and there was a very good list of issues that we'll need to consideration if this project is to go forward.

MS. EHALOAK: Thank you, Bob. Okay. Our next speaker is Dorothy.

MS. NINGINGSUAK: (Begin Translation) Hello, my name is Dorothy Ningingsuak (sp) from Coral Harbour. To people from Saskatchewan, I have a question for them in regards to the uranium mining. Since it's, they started do they have monitoring programs and do they monitor health, health safety? Has their health changed? Are there any women who's babies, has there any changes in the babies? Such as are they deformed or are they disabled as a result of negative impacts from uranium mining? This is my question.

In our Nunavut here it's different from southern provinces. We tend to follow the same process as down south. I understand that we will, we're going to be in a unique location up here because we are in a different, we live in the North, in the Arctic and it's a cold country. Thank you. (End Translation)

MS. EHALOAK: Thank you, Dorothy. Norman and Mervin didn't have their earpiece on, so I'm going to recap the question for them. Dorothy was asking if you could share with us some of the, if you've noticed any effects on birth, your population – and I was talking to them so if I miss anything, Dorothy, correct me – in your population with the development of the mines and in your experience what you've encountered since the mine came into Saskatchewan.

MR. WOLVERINE: Thank you. My name is Norman Wolverine. I'm from English River First Nation in northern Saskatchewan. In response to the question about child birth rate, in the past 30 years there's actually been a baby boom in my community. We've had a lot of children being born. There's – ah? No deformity that I can remember. I myself never worked in the mine, but my youngest is a slow learner. We live approximately, like, I'm right on the Churchill River in northern Saskatchewan and the

closest mine to us is, I don't know by miles, it's quite ways up north.

MS. EHALOAK: So, I want to make sure I'm focussing the question. Dorothy was asking about birth defects as well as any abnormalities that you've noticed with your population since the mines have come into being.

MR. WOLVERINE: I'm sorry, but ... you kind of caught me off guard here.

MS. EHALOAK: And Joe was telling me the rest of the question because I came to tell you to put your earpiece on. And noticeable cancers. Anything that you've noticed in the population, abnormalities or defects. If you can share with us. Well, we know good things, because you just told us, but –

MR. WOLVERINE: I haven't seen a very big difference except there's more people being born. It hasn't fluctuated. It's just continuous rise. And there's no birth defect that I know of in my community. If that can answer some of the questions.

MS. EHALOAK: Dorothy? That's good?

MR. WOLVERINE: That's it, yeah. I can't.

MS. EHALOAK: Okay. Thank you. The next speaker is Willie.

WILLIE: (Begin Translation) I'll say this very briefly. This is serious matter. It's going to impact our community and our people. It's definitely going to change our land. It's going to be not the same afterwards anymore. Once you touch the line it changes everything. Especially using the chemicals at the uranium mine. I'm not exactly sure what kind of chemicals you'll be using, even such as if there was to be a fuel spill that could change the land. In spring time, during the winter and up to spring time when the snow is melting and there's a run off and it tends to spread. This has to be considered. There are numerous concerns that we have and it seems like this is going to be eventually it's going to happen. We have to aware of the situations such as ... the numerous things that we have concerns, many things are going to change, such as fish, caribou. Their main diet in this area, in Baker Lake area. And also wolves and fox, muskox, wolverine, and they also, they value those animals and some, the birds migrate this way and some rabbits. And I been working for wildlife for many years and these are very close to us, to our people and I understand that we don't have very much time here. Thank you. (End Translation)

MS. EHALOAK: Thank you, Willie. And we are out of time. The other group should be coming back right away. I apologize to the speakers that we didn't get to and I thank each and every one of you for sharing your comments. It's forums like this that is going to help put documentation together to find out what the issues are. And this afternoon when you will be breaking you'll be going into the environmental group. So this isn't the end. It's just the beginning of a process. And I would ask anything, Ron, from the commissioners? We, actually we just had someone walk in. David Simailak, the MLA, and our Minister of Finance from the government is with us. So welcome, David.

---Applause

And his wife Jeannie, who did the prayer for us is also here with David. So welcome. If you guys want to take a quick two-minuter and I thank you for not breaking this morning because it was very productive. The other group will be back here right away.

—Break

Morning Group Discussion on the Environment

(Recording Unavailable)

Morning Group Discussions Report

FACILITATOR: – environment group first. Okay. I think I'll get started. We don't want to keep people into the lunch hour or hour and a half. We're on ... Okay. Good. Just a brief summary of what happened in the two groups and each group will have a chance to discuss the same or similar issues this afternoon.

On the environment group, which I was a part of, we had a lot of good discussion on a number of broad themes and we weren't able to cover all of what we had hoped, but first topic we discussed was about contingencies for accidents and malfunctions. And I think in general, which is not surprising, we heard there are concerns for various parts of the environment resulting from accidents or malfunctions at the mine site or along the transportation corridor.

What was of most, we also heard that there at existing sites in other jurisdictions there are quite detailed contingency plans and training provided to people as well as that regulators in Nunavut require approved contingency plans as part of licensing. People were concerned about how accidents or malfunctions may be addressed over the long term when operations have concluded. Just want to leave it at that.

We spent an awful long time on baseline studies, which is not surprising. We heard about that yesterday through speakers as well as concerns raised. And just to summarize it, there's definitely a need for baseline studies to document the conditions before any development. A number of speakers said that they felt affected communities should have a hand in developing or designing the baseline studies and definitely participating in carrying out the studies. There was again a very strong interest including traditional knowledge in the baseline studies. And finally, there was a suggestion that perhaps government or some independent agency might be doing more baseline studies rather than just proponents.

One final comment which was, came up in another question was maybe there should be base, part of the baseline studies should involve land use and special areas and that these areas may be considered of limits for development.

We also talked about an issue that came up last night in a couple presentations is how do decision makers address the concerns of one community versus another whereas one community may receive more of the benefits than the costs and another community may receive more of the costs than the benefits. We heard an example in Saskatchewan of how things are, impacts or potential impacts are considered on a regional basis and involving giving priority to impacted communities, but involving other

communities that may be subject to the benefits and costs to a lesser degree. That was also echoed in recent IBA process in the mine that has been approved nearby.

Finally, we talked a little bit about cumulative effects assessment and the types of cumulative effects that have been occurring. And we didn't get much further than that. There are a few questions left unanswered, but I think in the group this afternoon we'll push that topic as well as long term tailings stability. Sharon.

MS. EHALOAK: Okay. I only have four minutes to report. I'll tell you it was a pretty active morning. Our group was phenomenal we didn't take a break. And I forgot to thank Jen before we breaked for taking the notes. So thank you. She did all the scribing.

We talked about the impacts of health in a global sense. Holistic health, health definition, what it means, and health defined includes all aspects that have impacts throughout the community, the person, your well being, mental, spiritual, physical.

We talked about contingency plans, services, people that move in and out of the community, what that would do to the hamlet. The services, the education, the health, the infrastructure, people.

We talked about the mine process, the mine establishment. We talked about the mine becoming a reality, if that were to happen. About the support for the workers, reclamation of the mine. And I'm trying to go through the highlights because we had so much, it was incredible this morning.

We talked about opportunities for partnerships between the different levels of government, community organizations, the businesses, and the mine itself. We talked about assistance programs, some of the mechanisms that would be needed to have good holistic program delivery. Such as, hang on a second.

One of the issues that was brought up was the generational issue and the future generations. Looking at the reasons potentially why we have social, alcohol, drug issues, gambling. How evolution has happened and with development coming on so quickly. In the past the values and the principles that were passed on from the elders, how we incorporate that into programs. And how that could be designed so it is meaningful at all levels throughout the community as well as the government.

We talked about responsibilities for all organizations and all levels of government, that it's not just the mine's responsibility to deliver support services, it is the responsibility of everyone. The governments as well as the community.

It was interesting we talked about benefit packages. AREVA explained some of the program services that they deliver specifically and family assistance programs. And including their benefits, their life insurance, dental. We went into this over and above. And the support services. How we could or how potential partnerships could be developed between community organizations and the mine and the sharing of information.

We talked about the impact of accidents, community preparedness, how the small environments – something that was stressed was the uniqueness of Nunavut. This isn't

Saskatchewan. Inuit are unique. Their culture, it needs to be respected and incorporated. And that when an incident happens in a community it is critical for everyone to get good communication, information sharing so it isn't a snowball effect and that everyone's informed. So communication was identified as a critical piece here.

Someone, one of the speakers spoke to uranium as a big puzzle, all the pieces fitting together and I thought that was a good way. There's the impact on the environment, there's the impact on the process of the community, the influx of jobs, people potentially moving to the community, how that affects the infrastructure or the systems, the health. We talked about the need for looking at the future with waste management. Like water and sewage it was noted, one of the speakers said they drove by the sewage lagoon today and it was leaking, so how are they going to address that if there's a lot more people moving into the communities.

Nuclear safety, we talked about licensing regulations, regulatory processes and the support staff gave excellent information on the background of licensing, the regulations, the programs and services.

We talked about industry standards and the well being of communities and employees.

Training was talked about several times. The need to inform and work with the families and understand safety, training, all the components that are successful with economic development and more industry coming into the communities. And before individuals or potential employees or families of employees go to the mine having a program in place so they're educated, trained, they understand, both parties understand what the other is going through and the expectations and how they're going to communicate and work together as a family with one being away.

We talked about the water treatment concepts. The detailed assessments in the regulatories. A concern was raised and talked about with the toxins or potential toxins. We all know how the wind blows in the North right now with the sands. And with the dust that potentially could be a byproduct with uranium development, how it would be managed, how it would impact the environment, the wildlife, and the water systems. And how, what effect it would have on the environment if it wasn't managed.

It was noted that as development moves forward that spiritual sites, elders concerns, and information must be shared with all the people in the community and that those sites be respected and that industry and the community work collectively to ensure that information is shared with the elders and they understand and they're working with industry to ensure that if there's any spiritual sites, graves, or spots that are of spiritual meaning that they are adhered to.

Another comment was interesting. Everybody's focussing on global warming and what's happening in the other parts of the world. Well, we want to focus on what's happening here in the Kivalliq region, in Baker Lake, how it's going to impact the effects of the people.

We spent time on the decommissioning. Baseline studies definitely it was noted that baseline studies are required. What types of baseline studies we talked about

potentially may be needed. The need to incorporate all the different organizations at the different levels. INAC, the HTO's, the hamlet, the KIA, NTI, to ensure that information and when studies are being developed that it was specific issues and that monitoring happens on a continual basis and define what that monitoring is.

We talked about emergency preparedness. We were a little bit all over on this one. Understanding the mine gave, industry gave very good explanation of preparedness and some examples and we had some comments from Graham and Gordon on incidences and management and the need to ensure that good preparedness throughout the community as well as industry is happening.

I'm trying to be brief because I'm going over my time here.

The cultural and traditional issue, IQ, I spoke to already. It was noted very strongly that it has to be a part of the service, that the culture has to be respected and that services need to be basically formed around to meet the needs and that all responsibility, federal, territorial services are, everyone's fulfilling their roles and accountability to the people.

We talked about risk assessment and risk management with regards to inspections and understanding what the frequency of inspections are and Fred gave us a good explanation through the licensing process and what the obligations are through the regulatory process so that they're ensured that the risks are minimized. Or that the monitoring is happening to ensure risks are minimized.

I'm just, I don't want to repeat myself. So I'm just going through here.

A good question came up. North Saskatchewan, Norman and ... Oh, I can't remember the other fella's name. Anyways, they shared some experiences on birthing, abnormalities in birthing, if there were any. They were asked to share what experiences and learn from their experiences. Norman basically said there's no abnormalities, but they've had a severe, lots of babies being born over there. So that was his comment on it.

And basically, you know, there were a lot of concerns that were raised. A lot of issues. And we probably could have continued. We had a number of speakers that didn't get to speak, but they preparedness, the impact on the population, and gap analysis are very clear that a lot of information came forward to move on with, if industry goes forward. And I think ensuring that when industry or projects move forward that there's a common understanding of terms of reference, that we understand what monitoring means and that the community is informed.

So I think, I hope I touched on everything. Nick, final comments.

FACILITATOR: Just a couple announcements before we break for lunch. Thanks very much, Sharon. We'll get back together at 1:30 and we'd like the groups to switch. Those, that group that was downstairs discussing health upstairs with environment and vice-versa. The resource people we'd like to remain in the same groups.

Just wanted to, I think they may have left already, but I believe Betty Hutchinson and

her two fellows, Norman and Mervin, were catching the plane this afternoon. So I wanted to say good bye and appreciation for them coming.

As is traditionally the case when a large gathering is held there's often a dance afterwards and community's organized a dance here in the hall tonight. The doors will be opened at 7:00. There will be a drum dance about 8:00. And followed by a square dance. So you're all invited to come and burn off any energy that you may have left. But that's it for now. We'll see you at 1:30.

—Lunch

FACILITATOR: – take a minute and we'll get started again. Just before we get into our break out groups I'd like to welcome the MLA for Baker Lake and the Minister of Finance for Government of Nunavut, David Simailak.

---Applause

HONOURABLE DAVID SIMAILAK, MEMBER OF LEGISLATIVE ASSEMBLY FOR BAKER LAKE, MINISTER OF FINANCE AND ADMINISTRATION, MINISTER OF ECONOMIC DEVELOPMENT AND TRANSPORTATION

HON. DAVID SIMAILAK: Thank you very much. Thank you. It's great to finally get here. I had really wanted to be here last night during the general public session that was going on here last night. That's what I really wanted to come for. Unfortunately we didn't finish in the House until about 8:30, quarter to 9:00 last night and it was just too late to catch any flights. But I did make it in just before lunch to at least catch part of the last day of your conference here.

I'm here as a concerned resident of Baker Lake and also as the MLA for this riding, and also as Minister responsible for Economic Development in Nunavut. We have come together to review the social, cultural, economic, and environmental issues related to uranium mining in Nunavut. To hear the concerns of the communities in the Kivalliq. And to help provide factual and objective information on which the residents of this region may base an informed decision.

One of the key objectives of our government is to build a strong and sustainable economy in Nunavut and working to support a robust mineral exploration and mining industry. This is an essential part of that plan. In moving forward we must ensure that a balanced and sustainable approach to development is maintained, that Nunavutmiut are the main beneficiaries, and that our cherished natural environment is uncompromised. This is true of all development in Nunavut.

Uranium mining development brings with it a special social, environmental, and historical concerns of which we must all be aware as we move ahead. The mineral exploration and mining strategy identifies the role of the Government of Nunavut in providing clear policy direction to industry, to Nunavumiut, and to our partners in Inuit organizations and the federal government on the development of Nunavut's uranium resources.

Consequently, to guide to development of that policy we are establishing a uranium

development management plan which frames the key concerns around which further discussions will be held. The management plan consists of six principles that will serve as a guide for development, both here in the Kivalliq and territory wide.

As a government we believe that mining can play an important role in Nunavut in creating new jobs for our growing population and generating new revenues. Uranium exploration and mining can be a component in the development mix and can help extend development to more communities in the territory.

Uranium development does entail special responsibilities on the part of government. This is because of its unique radiological properties and potential risks to both human health and the environment if handled improperly. Managing these responsibilities will mean ensuring that the appropriate health and safety standards are adhered to, making certain that mining and tailings management methods are appropriate to Arctic permafrost conditions, and closely monitoring, coordinating monitoring efforts with all the agencies involved in the regulation of uranium mining and transportation. Most importantly, any uranium development must have the support of Nunavumiut, particularly in communities near proposed mines. The Government of Nunavut will ensure that all potential stakeholders are provided with unbiased information to support them in making their own decisions.

The Government of Nunavut would support uranium mining project proposals under the following conditions. Firstly, that national health and safety standards are, at a minimum, met for mine workers in Nunavut, if not exceeded. Secondly, that rigorous environmental standards are assured to protect the land and its wildlife, and also to keep the waters safe. And finally, we must have the assurance that Nunavumiut must directly and significantly benefit from development. If a project fails to deliver these assurances it will not proceed.

We do as a government also recognize our role as global citizens and the broader societal implications that come with producing unrefined uranium for the international marketplace. We have reviewed Canada’s legal requirements and treaty obligations regarding nuclear trade and non-proliferation and believe them to be sufficiently rigorous to guarantee that any uranium produced in Nunavut will be used strictly for peaceful purposes.

We also recognize that as a part of world-wide efforts to reduce atmospheric carbon emissions that many nations are adopting nuclear power generation as the best immediate alternative to their growing energy needs and that Nunavut has the available raw fuel resource they will require.

We will use the principles as a foundation to guide our policy development over the coming year and as a framework from which to engage the people of Nunavut in consultations.

(Begin Translation) I’m not stating the fact that ... We had voted in Baker Lake if we wanted to go ahead with the mining or if not. I’m saying that we are in Nunavut and we understand about the decision we’re going to make. We should be in agreement because we are from Nunavut and how it will affect us, let us understand, will it go

ahead, will it not. (End Translation)

You'll remember that there was a plebiscite held in Baker Lake quite a number of years ago now. As a resident of Baker Lake I was one of the people that voted no to uranium development at the time. And personally, as a resident of Baker Lake, I still have not made up my mind about uranium development. Which is why conferences such as this is such a key component of that whole information process. I'm not talking as a Minister or an MLA, I'm talking as an individual Baker Laker. We need information, we need factual information, we need correct information to make up our minds as the people of this region. And that's why this conference is such a key conference again in that whole process which brings together government, industry, public, IPG's, everybody all together to one place to start providing that information to the people that in the end will have to make the decision. The people themselves of this region. Those decisions will not be made for us by the people that live outside of this region. We will make our own decisions. In the end. But based on accurate, factual information.

As a government we have started the process of developing an uranium management plan and it will fully involve, as I said, the people of this region and the people of Nunavut in developing that plan. So we're here to work together and see, we will see where we end up.

Thank you very much for your time. Thank you.

---Applause

FACILITATOR: Thank you very much. With that I think we'll move on to breaking back into our groups. The environment group going upstairs and health and safety remaining in this room. If I could ask people to make their way to the appropriate room. And I invite the Minister to join either of the groups.

Afternoon Group Discussion on Health and Safety

MS. EHALOAK: – right on. Add that five in front of it. No backwards. Fifty-one. We have an hour and forty minutes this afternoon. This morning went very well. We ran out of time. Unfortunately this topic is a very interesting topic that is near and dear to people's hearts and it affects and impacts their lives.

How we're going to run this session, we have a number of support people here this afternoon and we want to focus on, we have three base questions. And we want the resource people to provide support to us. So I'm going to identify who our resource people are. We have, I don't see Graham. He's not here yet this afternoon. We have Bob, Doug who is just going to the back, Peter from Health with the GN. And we had Betty with the Saskatchewan group, but they left.

So what we are going to do is I'm going to do an overview. What we want to accomplish, we heard a lot of over the last couple of days in regards to health and social issues, health issues, safety issues, is focus in, look at opportunities, opportunities to share, issues, concerns, and we want to have a good exchange of conversation. So we'd like you to speak freely. And as people raise their hand to speak

I'll write your name down and that's the order that we'll acknowledge in.

So the first topic that we'd like to focus in on is, what contingency plans should be in place to manage potential impacts to public health resulting from accidents or malfunctions? So if the community is faced with, I don't want to just use industry as an example, but your preparedness as a community. If your power goes out, if you have a disaster, if something happens and there is an accident with industry at the mine, how prepared are we? And what plans do we have in place?

The next area is what baseline studies are required to develop a state of knowledge on health? And health encompasses not just specific health, it's holistic health. That's spiritual, mental, your whole well being. What's currently happening? What needs to happen? What resources need to be put in place? What does the community need to address and how is it going to look like?

The next is, I'm just going through Everything because this morning we ended up doing a big circle and going all over the place with the issues. What are the impacts of future exploration and development activities on community infrastructure, physical, social services, health, hamlet? What are the impacts? For example, we had one of the speakers this morning say he was driving by the sewage lagoon this morning and he noticed that it was seeping over already. And with future development and growth how is the community going to manage that? What do we have to do to be prepared? Would it be future sites? How is the infrastructure, the resources going to be affected?

So those are the three topics that we want to focus in on. No particular order. I'm going to open the floor for comments and we've been asked if we could let one of the elders have an opening comment. So I would ask him if he wants to come up to speak to the issues. Joe? Did you want to introduce him?

MR. KAKIMAN: (Begin Translation) I'm Thomas Kakiman (sp). I'm 77 years old. I was born at Thelon Lake and I have parents named Tululiak (sp) and Tuluktuk (sp). One is located in Padli (sp) and my mother ... maybe my father was from (inaudible) and my father was born in the Koyzan (sp) River area. They, she was, obviously they were always hungry. There weren't that many wildlife available at the time and they were just south of, they were, they, and so they kept moving with two children whose children are Kigalik (sp) and the, I was one of the younger ones. When they moved up, when they found an area with, up around Beverly area, past, then we moved past Beverly Lake and we started hearing, they kept moving and it seemed that we were seeing a lot more people. And even before I was born I was born up there and I was raised up there and that's where I grew up. And it was around 1976 when children were now in school and I helped with building houses and units.

Am I speaking too long?

When through Salts Lake, Aberdeen Lake, all the way up to hunting and trapping and all the way up north of Beverly Lake. And we grew up and travelled by dog team. And even these little moss batches, we used to, and whatever, whatever little things that, and we made sure that they were never lost and that they weren't broken up. So not knowing

that some time in the near future we were going to be able to get a lot of things that, and there were a number of people and my older brother and they were mainly female of my family and when my mother and father went fishing and hunting and whenever they were gone fishing they would bring their chisel, drag along their chisel and whenever they returned art we children were happy. Whenever we saw them carrying fish.

Boy, I should have loved my father a little more than I did back then. Of course we had a hard time, but, and so, as much as I'm in support of the uranium that is, obviously there, we're not like, we're not like the coast. Okay, the caribou and the game birds are what we live on and the fish and ptarmigan. And we're going to have to make sure, keep an eye on them, really all the fish, the caribou, and the Arctic Heron, watch the water, make sure the water is in good condition and the people and the Inuit. Obviously it is going to be okay as long as all of these are well looked after and make sure that none of them are disrupted.

I'm not talking just for Baker Lake. I'm thinking, I'm talking for other communities. Obviously we're not the only one that have a high unemployment, so I'm in support, and I'm thinking, I'm not just looking at Baker Lake. I'm thinking of all the, of all the other communities that we hear in the rest of the world where they're also in famine. You know, electricity has to be paid and food has to be bought and whichever community as to which, anyone. You know, when they're having a hard time and it seems now that they're working, a few of them are working they seem to be a little prouder and it sounds as if they're starting to pay off their debts. And they seem to be a lot happier and are able to stand up and walk around with their heads up a little more than they used to.

If they were given a few more, a there were a few more jobs, boy it would really help the community. And at least for some of us, obviously it's up to you, the people of the community. Don't think I will be around for too much longer and you, and you will, please make the decisions that you want to make.

And whatever non-Inuit food we ever had back then, boy we enjoyed them. They were good. They were very tasteful. Very tasteful. And whenever there, especially when there no wildlife for us to eat. But now that we have Northern Stores, or I mean, we have stores, and so we're a lot cleaner now that we're able to buy soap and clean ourselves and wash ourselves. And whenever a dog peed on the snow and obviously no doubt once you're in the snow and when the snow melts obviously that little pee spot will become, will spread all over the place. So trying to keep clean is not, because it isn't, it is to keep yourself healthy from getting sick. You're, it is, you know, keeping yourself clean is, it helps you stay healthy and if, if they are, have very good jobs they will be a lot happier. Although I'm saying it is up to you.

Back then, you know, especially when they want cigarettes or when they want pop, and you know, they have no money, and you're there saying, and sometimes when they really want a cigarette, just the other day, just for cigarette I'd walk to the Co-op and maybe, maybe, maybe the children will enjoy being in school a little more so that the children will, and the graduates, the numbers of graduates are climbing every year. I'm not just looking at Baker Lake. I'm looking at other communities.

And now we're seeing a lot of other people from other communities or coming in for the employment. I'm not too sure which way I'm in support in some ways and I'm against it in other ways. So I'm of, my mind is of two.

There's a number of people here I recognize and enjoy talking to at times. That I joke around with. Yes, I recognize some of the people that have come into town, but there's a lot that I don't recognize. Okay. I'm running out of things to say, so I'm going to give the others a chance to speak. Thank you. (End Translation)

---Applause

MS. EHALOAK: Thank you very much. Always good to hear the issues in stories. So some of the comments, just to summarize and see if we've captured it, is the protection of wildlife in the story. Ensuring that the land is monitored and that it's protected. The development will address unemployment. And that the model is not just specific for Baker Lake, it could be used for other communities. The economy will be affected and it supports well being. Like, through difficult times and being able to take care of your kids and having the amenities to keep yourself healthy and clean. Is that? Joe? Did I miss anything in the summary for the notes?

MR. KUSUGAK: Peter Kusugak (sp). Yeah, you covered what he had tried to pass on to everybody here.

MS. EHALOAK: Thank you. Okay. Any, I'm going to leave it open on the topics. What contingency plan should be in place to manage potential impacts to the public? And that's with accidents overall with industry, if there's preparedness plans that need to be in place. Or what's the state of knowledge now? Does everyone know? What studies are in place? Is there anything happening in Baker Lake? We had opportunity to have some of the agencies with us this morning that spoke to the services at a community level and how they'd be affected. And I don't see them here this afternoon. So that's a little unfortunate. And then the impacts overall that the development would have on the community and the infrastructure and the services. So comments? You guys are really quiet, man. I had, like, 50 hands up this morning. We couldn't keep up. We're going to get you up to do some exercises. If you can say your name, we're recording.

MR. ILANGLILUK: (Begin Translation) My name is Silas Ilangliluk (sp). I was born at Enodah Lake and we were transferred to Arviat, Nunavut, back in, 63 years old. In Arviat we have shortage of, for an example, an ambulance. There's no transportation for disabled people in Arviat. If the health committee or the, if they can transfer the disabled from, disabled, if that person is going out of town they should have a transportation. They should think of disabled people. Transportation should be provided to disabled people. Are we, in Arviat, are we the only community with no transportation for the disabled people? There should be a van or something to take the disabled people where they want to go. I would like to see it. Not only I Arviat, but also in other communities. This is where ... If someone can provide some kind of transportation it would be much easier for our lifestyle in Arviat. Transportation from the house to the health centre or from the house to the airport. Because there's no van available. I know it's not only in, it's not only in Arviat, but in other communities too. The van should be

provided. Thank you. (End Translation)

MS. EHALOAK: Silas, good point. Wrong forum. You should take that to, I think, the government. But if you have any comments on what we're talking about is with industry coming in, health and safety issues such as, for example with health regulations, water sampling. Water sampling is one of (inaudible) mines and exploration coming in. That's a pressure on your services. Your water, your sewage, your health, your social, your education systems. With industry coming in there's a lot of benefits, economic benefits and a lot of, you know, increase in money and whatnot, but if we can talk about and focus in on what are the impacts and identify them, identify opportunities, partnering opportunities, sharing of information, communication. If we can stay a little more focussed in that area. And industry is here if you have any questions or concerns. For example, this morning we talked about, there were question around the regulations, about support services for families, how families would deal with the rotation in, the rotation out. The spouses being away. Opportunities in that area. So Silas, do you have any comments or focus more about industry and the community and health and safety?

MR. ILANGLILUK: (Begin Translation) I just remembered something. (End Translation)

MS. EHALOAK: Okay. Comments. Suggestions. Concerns. Dionne.

MS. FILIATRAULT: Thank you. I think even thought Silas' comment is a little outside I think it still does apply. He's already identified an issue of services that are already have issues within the community and if you bring the mining industry or other infrastructure into the community that issue is going to be compounded. If they're already having problems transporting elders throughout the community itself or having people, because communities are going to grow. If you have industry that's going to move in they're going to bring in transients, they're going to have additional housing, the community itself is going to grow even more. And they're going to have an even further distance that they're going to have to walk. So I think the impact to services, social services and health services for the elders is still an issue that should be thought about.

MS. EHALOAK: Thank you. And it's a valid issue, it's just we're trying to focus in with uranium development and with industry coming in in the mines. Those sorts of impacts and how those services are going to be affected in the communities. So we recognize that elders do have issues and maybe there's a partnering opportunity there. I don't know. But we can keep, thanks for your comment. Joe?

JOE: (Begin Translation) Thank you. Back in the northern, obviously they have hunters and trappers and our caribou also migrate down in the area and if the fish from up here also migrate south and if they're, if there, if there was uranium development and all these wildlife migrate from one area to another I wonder if this caribou, I wonder if there's been any indication, and, of any difference or has there been any indication of the difference of fish as to what maybe it would help us as to how we would do things and so, and maybe if there is, are there any indicators as to whether, if there are any, any, any indications as to whether wildlife is degrading or whether the fish are degrading, especially when we're thinking of human life. That food chain can go into a

person and become a health hazard. So that's a question that could be posed. (End Translation)

MS. EHALOAK: Thank you, Joe. Bob, did you want to address him?

MR. POLLACK: Yeah, I would offer, it's Bob Pollack. I would offer two comments. One is that there are very extensive monitoring programs that collect samples of not just water and sediments in lakes and rivers, but also fish and other types of organisms that live in the sediments called bynthics (sp). So there's a lot of numbers out there that represent the amounts of different things, not just radionuclides, but also various types of elements. Nickel or copper or other types of elements. So I don't think it has been done, but it certainly can be done to compare these results from one area to the other.

The other type of program that is sponsored by the mining companies in Saskatchewan is a community-based monitoring program. It's run through a group called the Athabasca Working Group, which is a partnership between the companies and the seven communities in the Athabasca Basin. And one of the things that is done through the Athabasca Working Group is the communities themselves hire their own, the community people go out to help collect the samples and they hire their own consultants to do this. So the communities have established monitoring locations, sampling locations that are in the downstream rivers, downstream of the mining sites, and they've also set aside or established sites that are not, could not be affected by the mining ones. These are also rivers and streams in the area, but they're not in the downstream flow path. So the communities themselves with their consultant, they go out and collect samples of fish, of water, of other forms of wildlife. For example, if hunters catch a moose or shoot a moose – I guess you don't want to catch a moose, you want to shoot a moose – if they're willing to provide a sample of the moose meat it can be analyzed and all the companies contribute because we fund this program. But the communities themselves organize it, they run it. We can append a sample of some of the monitoring results in this program. In fact, I think I've probably got some samples at the back. I can go look at break time. And what it shows is that there's been no effects between these control locations that are not affected by the mines or could not be affected and the downstream locations that could be affected. So we think it's a very good program. You don't have to take our word for it or, you know, believe some guy in a suit from the South. Communities go out and collect these samples themselves and determine for themselves that if there is an impact what is it or in the case of the northern Saskatchewan ones what the program shows that there are no impacts at the community locations downstream of the mining areas.

MS. EHALOAK: Thanks, Bob. There's a number of people that have just come in. This session's open to everyone if you want to come up and participate. You're welcome. Peter.

PETER: Thank you, Sharon. (Begin Translation) In regards to Joe Kaludjak's (sp) comment, I would just like to make a comment. Maybe I would answer his question or I'll, this morning when we were having a chat during our break there were the two Indian from northern Saskatchewan. I had talk with them and I was told that in one of the

mines in northern Saskatchewan the caribou, the roots, there are, the herds are always on the go and they haven't seen any caribou being disformed or anything and the fish, they're the same. There's no change in them since the mine had opened. And they're near, just right near where the mine is and the wildlife, their scenery, they're still the same. There's no disform to the wildlife. There's no affection to it. This is when I had a chat with them this morning. This, I'm just sharing what I have heard. Thank you. (End Translation)

MS. EHALOAK: Thanks, Peter.

MR. TUKTULUK: (Begin Translation) Forgot to mention about ... Oh. Joe had forgot to mention, I'm David Tuktuluk (sp) from Repulse Bay. From what we have heard we tend to believe what we have heard. Down south we all know that and we believe that the heat is more hard there, hot over there, but in the North from the way I see it, we have the atmosphere from down south. I'm sort of an elder now. May-June the spring would be there and we still have a lot of snow in Repulse Bay. We're still driving snowmobile. And the dust ... from the south and going up through the atmosphere travelling north and then land on the, in the Arctic and when we're trying to hunt, looking, trying to catch in the spring there would be some water puddles on the ice and there was one area, and right at the flow edge ice it was becoming yellow and hard near Repulse. They were, and apparently they were doing research in the area. And they obviously, you know, we had to in order to, because we were, as we were hunting and trying to keep an eye out, we were asked to by nurses who were doing the research, we were, maybe we were the only ones who were, we can't see obviously the contaminants that are coming north and that land, and now that we're hearing this, and I'm feeling this too, I'm feeling the effects and I keep, and I still hear some things that when there's a sickness in one community and then we're asked not to move around too much, travel too much. I wonder, and so now I'm maybe posing a question, especially when we, when information is asked of us, maybe if they were not trying to have soot or contaminants. Obviously when I keep hearing that there are resources that would help stop all of this. Contaminants may be travelling which could affect the body and as for the, I noticed for that one which were bad we were, we had to make, they were asked to put our faces in the water and keep it there for a few minutes because they were doing research to see what kind of effect it would have on our eyes. I keep hearing that there are things that could stop all these contaminants and I wonder if there was something out there that would assist with our concerns on this. (End Translation)

MS. EHALOAK: Thank you, David.

UNIDENTIFIED MALE SPEAKER: Yes. As for myself, I have something to say. It has not been too many years since my wife had gotten polar cancer. I even had to escort her down to Winnipeg and when the mining companies are, you know, all the soot and all the dust could travel all over the place and I've worked in mining companies. The uranium. I had seen and noticed that that had been found in the Kiggavik and Sissons area and I saw how dangerous it can be. But inside the, when you step on it you, when you move out you'd, you had to wash and shower. And it seems the, this is really, really dangerous, all the, and especially when you're blasting and all the soot and all the dust

flies all over. And having worked in mines or in the exploration up in Kiggavik area. And especially with, and if the Thelon or the, and my, and ... My wife had lived in the Koyzan River area and grew up in the Koyzan River area and I feel that she wants to go and see where she had grown up. And so I wonder when she wants to, it's, it's not only once that I've heard asking if there is any way we can be assisted to have my wife brought to where, especially at this point while they're building the road to Meadowbanks area, to Meadowbanks. And having seen now oils on the ice we had to make sure, clean up the ice. It seems, I know that it is a lot of hard work and we've got to make sure that everything is well looked after, especially in the summer when the exploration, it seems every year, and we keep hearing year by year that the helicopters travel too low and which is not, which is something we don't want to hear. And this is that the helicopter, the pilots should make sure that they should be flying higher so that the caribou will not be disrupted and a lot of people are not, are not happy with helicopters flying too low. And that is when, thank you for giving me the chance to speak. (End Translation)

MS. EHALOAK: Thank you. So I'm going to summarize and make sure that we've got everything. The concern is if the mine or the chemicals when it's being in the process, how it's going to be controlled, the windborne chemicals. The seasonal impacts. There's with the season changes, with the water melting, how it's going to be controlled. And the air noise, the concern of the development on the animals. Did I miss anything? Bob, did you want to speak to any of it? Yup.

MR. POLLACK: I just wanted to comment briefly on the last point about low helicopter flights. This is an issue that we hear quite often. In fact, I think it, certainly in terms of the approvals that we have in our exploration licence we have a very firm requirement that when the helicopter's flying between, on long flights, say between Baker Lake and out to the exploration camp, it has to fly at over 600 metres, over 2,000 feet. And when it's flying around between one camp site and the other exploration area it's required to be at at least 300 metres or 1,000 feet. And these helicopters now have these really fancy geographic positioning systems, GPS systems. When our helicopter was coming up yesterday being mobilized one of the people back in the office tracked its flight northward just sitting at his desk in the office as to where the helicopter was an how high it was. So we will be recording what the flight path and what the height is for the helicopter and we will be checking that in fact our pilots are living up to the requirement that's been placed on us as the company to have our helicopters fly high. And we, we make these records available to government inspectors that come in or I think we haven't got it organized yet but I see no reason why we wouldn't bring out people from Bake Lake and take you out and you can have a look at our records ourselves that show here's where helicopters where. So I know it's a concern that low helicopters are disturbing wildlife, but it's something that's clearly fixable and should be fixed. So I'm pleased to see these fancy systems now in the helicopters that we don't have to take the pilot's word for it even. We can go and check. In fact, we can literally check on line where he is and how high he is. I know it's a concern and it's one that we need to get at and I think we'll also be putting that word out amongst various other exploration companies that there's no real excuse for this.

MS. EHALOAK: And I think you've just identified an opportunity to work with the community so they can see the information and share the information and actually review it themselves. Is that correct?

MR. POLLACK: Yeah, we'll have these records and over the, while we're out there this summer we'll be bringing various people out from the community to come out and see what we're doing. We're happy to bring you out and show you what we're doing.

MS. EHALOAK: Okay. Okay, you guys, you are so quiet. I can't believe this. Dionne.

MS. FILIATRAULT: There's just something that's been sitting in my head as far as an initiative that Environment Canada has and it's a document that a lot of the mining companies, once they get sort of past the exploration phase and they go into the mining phase, that they can develop, sometimes they develop this plan before they operate through the environmental review period. But in most cases they definitely develop it when they're setting clean up standards for any site, sort of where impacted soils need to be cleaned up. And this document is called "A Human Health Ecological Risk Assessment" and I, of the top of my head, can't sort of give you a whole lot of detail on that, but it is something that regulators use and industry uses to assess the risks as far as human health go based on ecology. So wildlife, vegetation, if your child is, if a mine site is, for example, for Nanisivik, if your mine site is in the back door of a community and there's a potential that there was windblown dust, if that child is sitting there and they are eating, you know how kids eat the dirt, can they eat the dirt and what effect does that have on a person? So there is, there are standards out there for industry and regulators to follow as far as human health ecological risk.

MS. EHALOAK: Thanks, Dionne. I don't know, hang on, Peter. This, can you say your name?

MR. TAUTU: Thank you. My name's Peter Tautu (sp). I'm from Chesterfield Inlet. Chairperson for Chesterfield Inlet HTO. I have a few comments or, you know, I used to work for Nanisivik mines, well, it's been over 20 years. It's been closed not too long ago. But you know, I've worked with veteran miners from Newfoundland and some of them from Ontario and, you know, any mining company hears stories or feedback that there's, they found uranium around here near Baker Lake. They used to tell us, well, lucky for you guys. But you know, they'd give us negative feedback that uranium causes cancer. And people who used to work for uranium minings maybe in Ontario or other countries like get cancers and how do we know? Like, we're, we were new to mining 25, 25, 30 years. Well, there's some more veteran miners in Rankin Inlet and other parts of Kivalliq, but most of them died off because of cancer. Maybe they left something in the mine at Rankin Inlet or something there. How do we know? How do we know that some mines can create cancers? I believe that there should be education under this system, under this mining and exploration. Uranium is new to our territory. Some people aren't even educated and they just want work because some companies are telling them that it's going to give economic boost and impact and they're not even educated about what negative health results can happen. I believe, I believe uranium causes cancer. Other mining industries causes cancer. Look, we have to, we're the ones that we should target

our self instead of our future generations. We have to teach them. We're the ones. We're the ones to teach them. They can't just educate themselves or just target the young generation to work and open a mine that they don't even know. It's going to take years to educate these young generation. Thank you.

MS. EHALOAK: Thank you. So basically, just to summarize, you're looking for evidence-based information on uranium development. Good education. An understanding of safety measures. And so people that get into the mine are prepared and have a good understanding of what they're going into and how it's going to impact them. Is that accurate?

MR. TAUTU: Yes, that is. That's my point of view because we have to educate our young generation what negative impacts can cause if there's a uranium mine. Or you know. And after that, you know, if they have to dispose it, well, they're just going to distract it, I mean extract it and they'll ship it somewhere else, but there's still going to be negative results even though the mine is closed. Thank you.

MS. EHALOAK: Thank you. Bob, did you want to comment on education or safety programs or awareness?

MR. POLLACK: Yes. I don't want to take a lot of your time this afternoon. I can be somewhat wordy at times, but we have I think very good safety programs both for conventional safety because mining can be dangerous just from a normal safety point of view. We have very good programs that emphasize training in safety for the workers. Our objective is not to have any accidents at all that cause people to be hurt. They should go home at the end of the week as healthy or healthier than they came. What we've had in the presentation some statistics that show that the mining industry, not just uranium mining, but the mining industry in Saskatchewan is about three times safer in terms of lost-time accidents than the overall average for the province. So it's a very good record.

On the radiation side, we've just recently – 'we' being the government and the companies including representatives from the occupational health and safety committees – just completed two recent studies. One was an update of the health risks for the miners from 40, 50, 60 years ago. Those that worked at Port Radium and Beaver Lodge. And yes, it did show some increase in lung cancer. No other cancers, just lung cancer. And that would be from the radon levels at that time. And it also showed that compared to smoking that lung cancer is not, from radiation, is not as much of a risk as lung cancer from smoking. So if there's one message that smoking is not good for your health is one of the messages to take away. And the other part of the study showed that the radiation doses in the so-called modern mines since 1975 till right up till now, that the radiation exposures are now so low that you're not able to see any statistically detectable difference in cancer rate from the, from working in the mine versus, unfortunately cancer is going to be the cause of death for many of us, about one in five or one in four. So that the current exposure rates are sufficiently low that you would not be able to see any statistical difference. And you know, we'd be happy to come back up and provide much more detail on these studies as we go forward over the next few

years of discussion. We appreciate hearing the comments to, here's issues that are of concern.

MS. EHALOAK: Bob, if you'd like to provide those studies for the document we could also include them.

MR. POLLACK: Yeah, oh, very good idea. Yes. Thank you.

MS. EHALOAK: Stephanie.

MS. BRISCOE: Thanks. Just building upon that, I think one thing that we heard from your discussion group this morning was that it's not only industry's responsibility. If the territory agrees to develop its resources that levels of government also have responsibility and I think that education is one of those areas that our government really needs to improve upon in the area of resource development. Not only focussing on training and development opportunities and employment opportunities, but just educating as part of our regular curriculum what the different resources are that the territory has available to it. Improving upon the education of the students in terms of what resource management boards there are that are available to the public as a resource in terms of going through the regulatory process. So boards like NIRB or the water board, wildlife management board. I think we need to start educating at an early level in the early grade system through high school rather than waiting until what I think is currently the Nunavut/Siviniksuvut (sp) program where they spend a year or two focussing on the land claim and the various articles. I think that education can be happening at a much early level and I think, you know, maybe there's someone here from education, I'm not sure if they're here now or if they've left. We've heard lots from the Minister of Education on the training and development side of education, but not necessarily focussing on the basic level of what is uranium, what is gold, what are the different resources available, and the processes that are out there to go through that side of mining.

MS. EHALOAK: Thanks, Stephanie. And that takes us into our, the last question, what the impacts of future exploration and development activities on community infrastructure. What impact does it have on the services? Maybe Peter, if you want to speak to some of the regulations in regards to health and water quality and safety and some of the pressures that that might be put on the system and how the community and the mines may have to deal with that and how it affects the limited resources and having to deliver the quality testing and the other mandatory inspections and whatnot that are placed on the system.

MR. WORKMAN: Hi, my name is Peter Workman. I'm the, oops. Strange experience. Hi, my name is Peter Workman. I'm the environmental health consultant for the Government of Nunavut. I'm an environmental health officer here. The *Public Health Act* in Nunavut does have specific regulated requirements for water systems. Drinking water, public drinking water systems, and sewage systems, which will impact on the mine sites. We don't have a lot of regulatory requirements for the actual mining activity itself. It's more the peripheral services, so the outside edges. The water system, the sewage system, the camp itself, the design and layout of it, and how it operates. There

is an inspection requirement. Those inspections would be being done by the regional environmental health officers. Which at the moment we're having a bit of a staffing issue and don't have a whole lot of those people on the ground, but we are still completing the inspections.

The act itself does have requirements in and about the medical system, medical requirements and things that the mines must comply with as well. For those camps. And depending on the size of the camp the requirements are all different.

MS. EHALOAK: Thank you. So the impacts or the effects that it may have on communities, on your services, on your infrastructures such as your schools, with the population growing, what are some of the concerns or opportunities that you may have to deal with? And again, I think Stephanie hit a very good point and we talked about it this morning that all governments, levels of governments, communities, organizations, as well as industry needs to know what their responsibility is, what their role is, how they can work collectively to bridge programs and work with the respect of the culture and the values and having that all incorporated. So. Hugh.

HUGH: Thank you. I was just wondering, if we're all concerned with environmental and health issues, and particularly with the mining, mining's going on. I was just kind of curious if something should ever happen how we would handle it, deal with it, if there's some kind of a problem during the mining. And when you look at the fact that we do have caribou going into the sewage lagoon now and I know there have been some health issues and concerns with caribou now. And not too much is being done about it to date. And if what we're going through today is an indication, if it's an indication as to how an emergency will be dealt with in the future then I think we should, I feel that we should possibly look at what's happening today in terms of dealing with some questions or concerns. So I don't know if that kind of adds anything to your topic here, but I just thought I'd say that comment. Thank you.

MS. EHALOAK: Thank you, Hugh. So basically what you're concerned is how it's being managed today or if it's not how it's going to be managed if the mine was to go ahead. What steps or precautions they would take to protect the wildlife.

HUGH: Yeah, protect the wildlife and possibly the people because as we know, we're saying that we rely on caribou and fish and yet we're hearing concerns from people that the caribou are getting into the, an area where maybe they shouldn't be and nothing's being done about it to date.

MS. EHALOAK: So, and that would be under the hamlet responsibility, how they're managing. Just identifying that issue. And then, Bob, if you could speak for industry, what the prevention or the precautions or the preparedness plan would be for that? For the wildlife?

MR. POLLACK: These are areas in terms of a future development that we would be developing in consultation with the community as we go forward. Certainly today where we're doing or going to be resuming some limited exploration we have a number of requirements that have been put in place for caribou protection and caribou seems to

be one of the main topics here, which certainly comes as no surprise. I'd mentioned earlier that we have restrictions on the heights that our helicopter has to fly at. We have a requirement to have a wildlife monitor. Out at the site.

We've made a commitment to very carefully log observations and interactions with wildlife to contribute to knowledge in that area. We have commitment to do a weekly survey on a 20-kilometre by 20-kilometre area, a wildlife survey, plus to do daily observations. If caribou come within one kilometre of a drill rig, for example, the requirement is that we shut it down.

So we have a lot of measures in place at the exploration stage right now and I think from this we also made a recent commitment to help, to provide a grant to help the Beverly-Qamanirjuaq Caribou Management Board do work on caribou populations, census type data and collaring. As have other mining companies contributed to the collaring program.

We are basically looking to organize also a workshop to collect traditional knowledge on caribou and that we don't profess to have, from the south, to have all the answers. So we want to combine traditional knowledge, scientific investigations, and just plain common sense observations to develop what would be an effective program to move forward with.

I might also comment just very briefly, there's been some questions about accidents or emergencies. We have very well trained emergency response teams at all mine sites, not just ours, that are able to, they're trained in First Aid, in confined space entry, in firefighting. Many of these same people that are trained in our emergency response teams are also part of, say, the volunteer fire brigade in their own community in northern Saskatchewan. We've in fact brought northern communities volunteer fire teams out to our training facilities at the site to help with training for fire protection in the community.

So I think there's many opportunities where we could, you know, we're not the government. As I said this morning, we're not the government and we have no desire to replace the government or the services that it should be providing. I think there's many opportunities for partnership. I know for example in the mining strategy that was just released by the Government of Nunavut one of the comments was to look for opportunities where our infrastructure could help the community.

MS. EHALOAK: And Bob, is there an opportunity to share that information through the community committees so the community has a comfort of the preparedness and the safety strategy that the mine would have in place?

MR. POLLACK: Yes. We have here in Baker Lake a community liaison committee with people from various groups within the community on this liaison committee. I know they'd welcome the opportunity to share this within the community liaison committee and then more broadly with the various groups in the community.

MS. EHALOAK: Thank you. Paul.

MR. QUASA: (Begin Translation) Thank you very much. I'm Paul Quasa (sp). I'm

Nunavut Planning Commission even though I'm originally from Igloolik. (End Translation) Just on the question itself, I think it was already brought out previously too. I think as the gentleman that just spoke to me prior to me said, they're not a government.

MS. EHALOAK: Bob. Bob's with AREVA.

MR. QUASA: Okay. Hi, Bob. I know you're not government, but just talking about governments I feel that it's also very important that the government must make sure that the communities are up to date, are ready for the development in terms of infrastructure needs. I think it is up to the government to make sure that the communities are ready for it. For example, even in my area, Igloolik, we are now experiencing a lot of mineral explorations taking place and as a hamlet we're experiencing shortages of employees because the employees within the hamlet are being grabbed or going to work with mining explorations, therefore we at times are getting short staffed when in fact we have a responsibility to carry out municipal services, etcetera. And I think the community at times are losing out and that is why I say that, you know, both levels of government, Government of Nunavut and municipalities, have to be well prepared for the developments and so forth. And we're experiencing that. We're losing out at times at the community level when in fact we should be benefiting from the developments. Thank you.

MS. EHALOAK: Paul, did you want to comment? This morning we had, Joe was with us and he was speaking of the concern of how the younger generations, how the technology is changing and how some of the social issues and the problems that are happening, how what the values and the principles that were passed on from the elders in the past, how that's missing. Do you have any suggestions or comments on how that could be incorporated into the services that are being delivered today or programs that might be able to reinforce? We recognize you can't go backwards, but how do you pass forward that knowledge to help the holistic health of the individual with the values of the past with what's happening with today.

MR. QUASA: Well, well, there's existing social affair type of groups within our communities. And I think those are those are the, I think it was brought out at one time that we also have to think about healthy community, being a healthy community. These support groups within the communities have to be given more opportunities to spread out their expertise within the community. We have elder groups within our communities, we have social affairs committee groups within our communities, and I think these are the people that can definitely help out and make sure we have healthy communities. We have programs like Brighter Futures, etcetera. But I think industry have to look at those groups also if they want to help out within our community to make sure that we do have healthy communities and viable communities. Thank you.

MS. EHALOAK: Thank you. I have Joe and then the other Joe. So this Joe first. Yeah.

MR. SCOTTIE: (Begin Translation) I'm Joe Scottie. I'm from BLCCC. On the emergency measures in Baker Lake. We have only one fire station here. It's only one. The community is expanding. And also we need to have an ambulance for this

community. These are two most emergency measures I would think, I would want. The Baker Lake, the sewage lagoon should be set up like Rankin Inlet. It should trucks us into and if we had running water, and if we had running water even just half of Baker Lake it would make it a lot easier, especially when Baker Lake is, we get a lot of snow. Sometimes our sewage trucks even run down especially in the middle of winter and the sewage lagoon should be increased. It should also be fenced in so that the caribou and wildlife will not be around the sewage lagoon, right inside. And the other concerning wildlife. Around Baker Lake, having lived in an area I was, I had pulled, I had pulled out, saw fish that was dead and took it to the wildlife officer except I was, except I was never even informed as to why and there should be wildlife monitoring officers and especially which there are a number of services that should be in place, and I have a lot more to say, but I'll stop there for now. (End Translation)

MS. EHALOAK: Thank you, Joe. So existing services right now, if I'm hearing it right, aren't meeting the needs. And with the impact of future growth with people moving into the community potentially and the development, that's something that would have to be looked at. And the measures to ensure that it's done appropriately. Is that, as well as measures for the wildlife around the sewage lagoon and the dump. So the waste sites. That's more community specific, but, and then looking at where the best sites and how to manage would be in the future. Yeah. And you're on.

MR. KALUDJAK: (Begin Translation) Okay. Joe Kaludjak (sp) from KIA. The two, the areas that are concerning KIA, it is a little hard to answer both of them all at once, but especially when the mining opening in the Inuit impact agreement, and obviously we would be able to work ... especially when the Inuit are going to be affected when the mine is open. And so we would be able to put in place, and also in, also in terms of resources. When there's a mine going to be opening the communities wishes could also be, I am not able to answer those completely, but especially, but I can, but I can answer the Inuit are going to be affected and the KIA is going to be working on the IBA, maybe, especially when we're all, when the KIA's dealing with all of the communities, but the question as concerning, concerning fish may be near, that, when we had an oil spill I had also noticed a fish that had died and I had also taken it to wildlife office and again we were never informed as to what happened or why that fish was dead. (End Translation)

MS. EHALOAK: So, Joe, would there be an opportunity for people to, when the IBA is negotiated raise their concerns and issues with services and programs in the community infrastructure? Is that an opportunity for Inuit to talk to the KIA and with industry when the IABA is being developed? You talked about the issue around and some of the programs and services with the IIBA. Would there be an opportunity for the Inuit to work with the community and be aware of the issues or bring their issues so potentially what's not being addressed could be addressed through the IIBA and the management protocols outside of the regulatory processes?

MR. KALUDJAK: Yes. Usually we have representative from the community to do the IIBA with KIA. So we usually have represent and visit the community when we're doing an IIBA for the Inuit.

MS. EHALOAK: Okay. Thank you. Stephanie.

MS. BRISCOE: This is, I guess, more a question just going back to Joe. I know, Joe, the Nunavut Association of Municipalities has been quite active recently in attempting to work with the regional Inuit associations through the IIBA process. If they were to limit their interest and discussions to infrastructure, so water treatment plants and sewage lagoons and municipal infrastructure that could potentially be impacted as a result of development, would your association be willing to at least meet with the hamlet councils to discuss those particular issues? Given that they would ultimately have an impact on the beneficiaries in the community?

MR. KALUDJAK: (Begin Translation) Thank you. Joe Kaludjak from KIA. It also will affect the hamlet and especially the public of Rankin Inlet inside the Nunavut Land Claims Agreement. It points out in the Keewatin Land Use Plan it will affect the Inuit. We have a lot of work to do. For example, getting hydro or in the community we can't really actually speak on it because these are part of Nunavut government work. And there are a lot of differences that, there are a lot of differences, the workload for each organization. For example, Government of Nunavut or KIA or hamlets. (End Translation)

MS. EHALOAK: Thank you. Annie or Percy, I see that we have a number of elders at the back and we're just about out of time and they don't have earpieces on. Could you ask them if they have any comments so we can hear from them if they have anything they would like to say? Brian.

BRIAN: On the subject of IIBA's, I just want to add that if the uranium facility was to go into production it generates corporate taxes, it generates royalties, and income taxes. That money will, I would hope would funnel back into Kivalliq region and into the Hamlet of Baker Lake. And we've talked lots about the legacy issues around uranium or mining in general and one of the positive legacies is in fact infrastructure. So there really is an opportunity here. Mining, as Bob mentions, will never replace government, but there really is an opportunity and my understanding the Meadowbank project will represent about 20 percent of the GDP in Nunavut when it's operating. That's a significant and positive impact. Thank you.

MS. EHALOAK: Thank you, Brian. Steph.

MS. BRISCOE: I'm not an expert on the tax system in Nunavut, nor do I care to be, but I think right now the majority of royalties are going to the federal government and NTI, not to the territorial government at this time. Although I might be mistaken on that. Income tax I believe is a federal program or a federal government tax that the federal government would be receiving, not the territorial government.

However, all municipal infrastructure is currently funded through your hamlets by way of the territorial government. So at this point in time they don't even have enough money to meet the needs today of our current infrastructure needs. We're all, most communities are currently maxed out in terms of space and land fills and sewage lagoons that are being breached and overflowing. And the money isn't there to repair those on a regular basis. So until such time as devolution occurs and the territorial

government does have an actual means of collecting a royalty, we need to be looking at alternate solutions to the infrastructure impacts that may occur. I'm not saying they will occur, but they may occur.

A lot of our exploration programs to date show the back hauling of waste into communities. Through the NIRB process and the water board licensing process the proponents are advised they need to get permission from a community to do that, but are we really, can we honestly say that a community is making that decision instead of the actual mayor or deputy mayor? And for a landfill that may be designed for a 20-year life span, if you're starting to, as we talked about this morning, when you start to back load additional waste that wasn't calculated in that plan, you know, your lifespan now has decreased anywhere from three or four or five years. What's the community then going to do when they're out of space and there's no money coming from the territorial government for those expansions until such time as they have access to royalties and additional tax. I think the only tax they get right now is a payroll tax that just went from one to two percent. So it's not a significant, I don't think it's a significant addition to the pot of money that's available to the communities.

MS. EHALOAK: Thank you, Stephanie. While you were out Paul actually addressed for organizations and governments to fulfill their fiduciary responsibilities and we recognize that industry has a role to play, but they're not responsible and they're supporting the process. But everyone needs to partner together. There's an elder in the back. I'd like to, we only have 10 minutes left and if our elder that spoke first, if we can end with our elder that speaks last. And there's a fella in the red shirt, if you want to come up and have your comment.

TIMOTHY: (Begin Translation) Yes. I'm, and I spoke yesterday. And it seems that we're moving away from the area as to what ... they seem to only be talking to the residents of Baker Lake. I'm not looking out, not looking into other communities that will be affected. I just wanted a comment on this issue. We're only concentrating inside the community of Baker Lake. We're talking about the mining opening. That's all I want to say. My name is Timothy. (End Translation)

MS. EHALOAK: We're going to have our final remark from Thomas.

MR. KAKIMA: (Begin Translation) I'm Thomas Kakima (sp) ... I wanted to say that I'm the real boss of Baker Lake. Yes, he's one of my people. And maybe even you now, maybe you're turning over here, and now that I've moved up here, Joe Scottie has turned, Joe Kaludjak is also one of my people as I'm the big boss here. When I had worked with Kabluna (sp) working with the young foxes when the person who was with me trying to catch the young fox I was laughing very much just looking at him. And when he threw, when he threw the fox, the fox went right inside its hole. Sorry. I wanted to keep, I used to work up in the area with the wildlife and the game and with, I had worked with two or three different life and the planes used to, and at the time the area that we were, was, was, birthing area and, you know, it's, there's a lot of eggs also up in the area. There's a lot of lemmings in the area. And I just wanted to bring it up so you can, I just wanted everybody to know what it was like. But in the summer I just wanted,

when, you know, every once in a while they have people to, by my children. I don't know what it's like today, but it was a calving area and of caribou and fox and lemmings and, the old man, the old man Toolooktook (sp) and the other were never able to keep up with us. Especially in the spring whenever the snow is really soft. Me, Natiluk (sp), and Oveyuka (sp) were the only ones. We had to catch 10 calves and whenever they're male, it was a lot of fun back then when I worked with them. Working with calves and 10 young, 10 calves, when I was a real Inuk at the time and when I was a lot stronger. When I moved here to Baker Lake and that's when I started working and I worked, I have a lot of income tax that I gotta pay at the time, so when I asked David Hisamilikta (sp), you will be taken off only when you want and it seemed as I was put in the right place where I wanted to be, and so I worked for maybe around 21 years and when I became of age I finally retired. And maybe I was the oldest at the time when I was working I was the oldest of the group and it seemed that the people I worked with, the calving areas, and it's also, it's also, you will also find a lot of nests and you will, wolf also birth in the area and so do foxes and I don't know what it's like today, but I just wanted, I just wanted the, everyone to, to be aware of this. I don't know what it's like today, but that's all I have to say except I just want you to know that I'm the big boss around here. (End Translation)

(Laughter)

---Applause

MS. EHALOAK: Joe, you've been told. Thank you. We have one more comment and then we'll close the session. Did you want to come to the table?

UNIDENTIFIED FEMALE SPEAKER: (Begin Translation) My husband used to work in Rankin Inlet at the mine for four years, but when we had been here for a number of years his health became deteriorated. Maybe it's been, when his health became, I looked, I had to look after two young children when we had seven children. He was working in Rankin for four years underground and, he worked right at the lowest end and it had been a number when he had stopped he had started having health problems. And when he, he was, he barely ate and all he did was drink water and I looked after him day in and day out. And I brought this to the, so he tried going to the health services and it took a long time for him to be sent out. I forget when he finally, when he was finally sent out to Winnipeg and he had left and we had no phone at the time. And at the time phones were hard to get by and he had, he was really, really sick. I even just lied on my bed and one of my, and cried. And we were hungry for a long time. And I wondered what to do. And I had a hard time asking, I had no money to purchase food. I just wanted everyone to hear. So I'm bringing it up. So I tried, tried and find work and I even did trapping a little bit so that my children could eat. And when my husband had been away for quite a while so I was asked to go and see my husband and I brought my two-year-old down to Winnipeg and while he was in the hospital I was there and I was staying at a person whose, whose, whose was an Inuk. I'd go and see him at 1:00 and then go come back home for supper and then go and see him again at the, from 7:00 to 9:00 or 10:00. And we find out, you know, nothing else could be done for him. And it seemed it didn't look as if he was, he cannot, he can't hear anymore. And whenever I

remember this I'm asking, two weeks, I had to, I had to, just before I was going to be leaving to come back to Baker Lake, maybe I was going to leave Winnipeg and I didn't know. I didn't want to leave him, but I had to leave because my flight was, had been paid by the government and I had to follow that. And I had six other children that I have left behind and they're hungry. And this was very heavy on me. Very hard on me. And so I came home, but when I came home all I could do was lay on the bed and all the lights I kept, I kept, all I could do was lie down and there were, there were two young children who were two or three years old and the rest had to try and feed themselves and we didn't know, I didn't know who I could ask and we could not get welfare. And when he had been working in the mine in Rankin Inlet and so I left, I had to go back down. And here you can't even recognize him anymore. So I even yelled once because I was, who is this person? I don't think, he's very thin and he can't even eat anymore. And I wanted to see the director of health services in the hospital. So, since then my children have grown up and at the time I asked what kind of sickness does he have? I want to know. And the doctor didn't want to tell me. Go ahead, just tell me. Because he wanted, he wanted to make sure that, and I had, my brother is an Evangelist and they, the Anglican church wanted to, and so that when I go back home someone can pray for him. But when I went back down I couldn't even recognize him for my own. I used to pick him up and put him on his pillow. He can't see and he was bleeding all over the place. Even his nose were plugged, his nostrils. And all they did was give him water. At the time I was going through hard times. My seven children. I couldn't, I didn't know who to ask of the Inuit for food and for assistance. I tried carving, I tried sewing, and so because there was nothing else and I'd never asked, I'd never begged at any time ever. So I didn't know who to ask for. He had, and ... and they brought him by, when he was brought I had to look after him. The nurses didn't even bother with me and he was, all, he could, I'd let him, give him, let him pass water at night and I had two other children. And when he came back I had, I gave him tea, I gave him water, and made, make a little bit of soup and had to make sure I was trying, I was starting to feed him. But thin pieces of caribou. But today it is getting told, he was, he had been walking and he had working for a short little bit and we could not get welfare. He was, he was delivering water around the beginning of November and then after that he became sick and just laid in bed again. And so because he's my husband I just lied behind him. And you know, all we had was stoves and he, and water was never delivered to our house at the time. Then he had to go leave again. And so I went to, and I just went to, when I went to the nursing station and told them, you know, he can't do anything anymore. Then he left and during the summer after he'd gone I again, I can't, I didn't even heat because all I was worried about was my husband. And I again just lay in my bed. And I found out that he had leukemia and because he worked and so therefore the doctors thought that he had gotten leukemia from the mine and they, they want to work, specially when they want to work, we Inuit are too quiet. And here I'm an old lady and I have no more, I am now widow and I had gotten, but he died too. And here we are now that my children are adults it is now, but back then we had, we had no food, so we were hungry a lot. All we had was tea and water. And the welfare, social assistance was not available. I even tried, and I had never trapped for fox. So I tried trapping. And I finally caught three, made sure, and made sure after they were prepared and dried I took the three furs to

Hudson Bay Store and we finally had food to eat. And while he was away for, and of course I was just lying, because they're, because they're thinking that, you know, nothing can be done for him anymore. And I was worried. And I would, and my children are outside and I kept the lights off and just laid in bed crying.

But finally, and our, and the priest came into town and he had come back ... I was going to be with him when he was going to be sent out. I started asking myself, is it not mining industry's fault? Is it because he worked at the mining industry that he got sickness? I just wanted to share what had happened to me. If they would like to work let them work and I'm not against uranium mining. But I just want to share what I went through. As he was passing away. How about ... I started fighting my own bed and the pillow that we used. I'm not trying to be, I have to, I have to speak of what had happened to me. If it's, if the mining, the uranium mining is going to be looked after let it be. Let us be educated on uranium, on mining exploration before any other things also affect the people. I'm not sure why ...

The reason why I'm saying this is I had a hard time accepting of what had happened to my husband. He went home to, he worked for four years in the mining industry. We did not get any compensation money from the mining industry or workers compensation. We got nothing. The only, the only income I'm getting is widower's pension. And we can't work, the only educated people are getting jobs. And I was not an educated person. I tried really hard to finding jobs so my children could eat. I looked around everywhere just so they have food in their stomach. That was most hard life that I've ever went through. I loved those, already for those who are going to work. If they're going to be affected the way I'm affected. But if they would like to work let them. If they're going to work for long term.

When I travel through Rankin I see that old mining, it's being ignored at this moment. Sorry. I shared my comment. For those who are going to work and those who are going to great jobs I thank you guys. Because my husband had worked in the mining industry, I'm just saying the part, my part. He worked for four years. He used to work two weeks night shift and two weeks day shift. The only time we would see each other is when he's going for lunch or when he's going to sleep.

I thank you for the employment opportunities. We know that now there are going to be more awareness. Let us be more educated on uranium. We were going to have a training on uranium. The mining industry, uranium, if it's on the go and I believe I won't not live here. I might move to another community because we have a lot of family here. The wind blows where it wants to blow. Southeast, west, north. It's not visible to see if there going to be a uranium mine. Let us be taught just the way we were taught. There might be some signs, losing hair. Thank you for, thank you for the income that you are going to bring to this community.

And also the only food source that would be, that is free to us are the caribou and the fish. I wanted to say my part. And thank you for hearing me. I'm just speaking on behalf of my husband. And other workers that used to work in the mining industry are still alive. Just so my soul and my mind will get better, I shared this comment to you. Thank you. (End Translation)

MS. EHALOAK: Thank you very much.

---Applause

I think from this story, learning from the past experience, wanting for knowledge and education, and learning to do things better, and working with industry so there's an education and understanding on the Safety around uranium mining.

Okay, we're done. We're a little over time, so if we want to take a quick break and then we'll come back together. I thank you for your participation and for Vicki taking the notes. Thank you.

—Break

Afternoon Group Discussion on the Environment

(English Translation Unavailable)

UNIDENTIFIED MALE SPEAKER: (Begin Translation) My name is (inaudible) I am a hamlet council member. I have been appointed by the hamlet council to take part I this workshop ... Since we have been appointed to take participation in this workshop as we are the representatives of the residents here. Most concerns or questions have been pointed towards the hamlet council. If the topic of mining industry. Any concerns that have been brought up in this workshop ... We have a lot of representatives here that have come here to this workshop. We will have to, we will have to work together in this workshop with the resources available and understand each representative and what their position are. So for the people of Baker Lake to come to a point where they have to make a list and understand all the roles and responsibility of each person that has come here to represent ... For this winter or this coming fall the concern of any tailings will have to be covered because it will affect our wildlife in the surrounding areas. And for those people who are concerned, the people of Baker Lake, the residents of Baker Lake will have, should have a list of people who are representing the, their title, their position so that the residents of Baker Lake will have knowledge of who to contact at what point depending on the circumstances.

And also, if it has to do with the mining industry this summer and spring, summer, and winter time we have heard that in Saskatchewan they have longer summer days whereas in the North here our summers are really short. And due to the short summer season it will affect on how the tailings are being monitored. I have ... I have seen the differences in the landscape and how, where, where I've seen some areas that have a lot of hills and where some of the just plain tundra. And how each, if the problem is between an area where there is a lot of hills and where there is tundra we will have to modify this survey according to what's, where the tailings have been. Where it have been deposited.

For some of the people who have dealt with the caribou management board, they have noticed what, what the migration route has changed over the past years. What also concerns about our wildlife is that it will affect them dramatically, it will affect the muskox and the Grizzly Bears. And depending on how they're affected, if they are hungry

enough the depletion of caribou, it will affect the Grizzly Bears in the surrounding areas and if there is lack of caribou in the area then the grizzlies will come closer to town. And the grizzlies who are hungry enough will eventually attack anything that is near them and that is dangerous to the people of Baker Lake. They might seem small, but they are fierce.

But I would like to say, the surrounding areas of Baker Lake is different from what's being said about the area in Saskatchewan and how that was dealt regarding the wildlife. This gentleman is, as an example, the difference between how far a person is in a snowstorm, that is about five, six feet away in a snowstorm. With the mining industry the people who have come here to work for the mine will have to understand the pros and cons of mining and understand the circumstances that can come regarding the business aspects and private property of how it will affect everything in, everything that, how the mining industry will affect all aspects of life.

Right now, I will not, we will not say out loud whether I choose to go with or if I will decline the mining to be accepted here in Baker, but the surrounding areas will have to be considered. Thank you. (End Translation)

(English Translation Unavailable)

MR. INUKSHUK: (Begin Translation) My name is Matthew Inukshuk and I have been involved in some of the activities of the mine and I have worked with the local radio station in Rankin. When all over there are several types of mine in the Kivalliq region. Last year there was a ... of a Grizzly Bear being chased by either a helicopter or a small twin aircraft from, that came from the mine companies, that was hired by the mine companies to chase off that Grizzly Bear. And when the search and rescue team ... When the search and rescue team had to use a ... When you see the Twin Otters or the helicopters chasing off Grizzly Bear, as a hunter that is very offending to see these aircraft or the helicopter chase away the grizzly. Also, that he has heard of two, he has heard of a circumstance that a person who adopted two grizzly cubs and that is not the wise thing to do as a hunter is to adopt a grizzly cub as a pet. That is not the way to treat our wildlife here in the North. Wildlife are, wildlife has nothing to do with the mining company and from what he understood the person who adopted the Grizzly Bear cup (inaudible) came from the mine camp.

He is glad that he has heard and acquired a lot of (inaudible) about the mine camps. He has heard more than once about the topics that come from the mine and the concerns that come with it regarding mine. Once the mine camp, once the mining industry is in place then, as the mining industry comes closer to opening up more and more frequent meetings should be held as, depending on the circumstances that arise from each meeting. (End Translation)

(English Translation Unavailable)

Afternoon Group Discussions Report

MS. EHALOAK: – need on both of these and I didn't know which one it was. Welcome back. I'm going to be very brief. We had a very different discussion this afternoon than

this morning. It was very good. We had some good stories from elders which gave us a lot of messages and issues to pay attention to. We talked about contingency plans, the need for development, protection of wildlife to ensure monitoring is happening and it's happening in a way that's informed. We talked about mitigating unemployment, economic issues through an elder who gave us a story. Employment will bring opportunities for self well being. And we talked about families, the means for families to be able to support themselves. Transportation in the communities. One individual spoke to, right now the pressure on the community with the disabled and the transportation system within the communities, the infrastructure is having difficulty meeting the needs as it is, and with the future what impact that will have and what they would need to do to address the issues with the expansion of the community, the transportation needs, the pressures on the health and education systems. We talked about the fish and caribou, how they've changed or if there's been any change. The wildlife being studied and doing baseline studies including the community groups that monitor as part of the monitoring. And to ensure that monitoring is done again so that everything is being done.

I don't want to repeat myself here, so I'm just going to read ahead.

Again we talked about dust control. Mine operations. How the preparedness and the plans would be to address the issues to ensure that there's not contaminants in the environment being breathed in. Helicopters, the regulations over helicopter flying over the wildlife on the land when they're coming to and from the mine sites and exploration. Bob was shared with us that there's a new piece of equipment that can actually monitor how high helicopters are flying. So even after the flights are done – I hope I'm explaining this right, Bob – that you can track it and the community and other individuals are welcome to participate and monitor the information.

We talked about the past, how uranium was done, and the advances that have been made and the technology. Cancer was an outcome in the past because of the unsafe measures and how to mitigate the mining so that it's safe and that people are educated and informed and they understand the safety issues that are required and the education to be able to participate and be employed in the mines.

Again, the responsibility is shared with mining industry, government, boards for education and citizens and that each has to understand and fulfill their fiduciary responsibilities in regards to delivering programs and services to communities. And it was stressed that government should be able to address the needs that are under the responsibilities as all levels of government, communities, and the pressures that the hamlets are currently facing with infrastructure and service program needs in the communities with the growth and the current funding formulas.

Economic development, the, how the industry would be working with the community, how the impacted growth will sustain and develop the well being of families. Right now one of the individuals spoke. Baker Lake currently only has one ambulance and one fire truck. The sewage disposal and water quality of the lagoons will be increased and some of the measures that possibly will need to be addressed in the future, such as fencing and relocating the sewage lagoon, and ensuring that the wildlife isn't getting into the lagoon and that the containment of the sewage is staying in the lagoon and not seeping

out into the water.

We talked about processes, IIBA agreements with the KIA and how people can work with KIA to influence and ensure that the needs are open, that how mines affect fish and what happens with accidental spills and whatnot are noted so that when they're negotiating their IIBA's that it's incorporated.

We talked about dust control for airborne diseases, how to control it. Seasonal impacts. And traditional knowledge and incorporating the knowledge again into programs and services. So. Daima (sp).

FACILITATOR: Thanks, Sharon. The group upstairs, again, a lot of discussion on environmental issues. We spent a lot of time on tailings and waste management and initially there was mention that there's a legacy of some waste sites in the region which does not, raises a concern to people right off the bat. Concern over various pathways for tailings to enter the environment through dispersion, failure, leaching from the tailings pond. There was also mention that what may be practical in non-permafrost environments may not be practical here and there will be a need to address both the permafrost environment, as well the regional impacts of climate change on permafrost as a possible containment structure or containment method.

There was presentations yesterday and the day before about the longevity of radiation in the tailings and, while not fully understood, it's believed to be an awful long period and at what point does a company be relieved of responsibility for monitoring and possible mitigation. Who takes that over? Is that the government or local communities? There are examples of that in Saskatchewan that security, that a financial pool is set aside to pay for long-term monitoring and possible repairs.

Again, there was an explanation of how tailings are currently managed in Saskatchewan. There was some concern over burying waste and tailings in this environment and what the long-term impact is. Again, dispersal of tailings was voiced as a potential impact.

I guess a number of other points on tailings, but generally concern over protection of the environment and the users of the environment over the long term and issues of responsibility once the mine has closed.

Cumulative effects is another item we spent a fair bit of time on and there was questions about how are cumulative affects assessed in other areas. What sort of guidance is there available? There was some specific reference to looking at cumulative effects of radon gas and water discharges, but also a recognition by some parties it's more, assessing cumulative effects is more than just looking at one specific pathway or element and that if we don't adequately understand the effect of one activity on a species such as caribou can we really expect to understand the potential cumulative effects of many activities on caribou. So I think a recognition that cumulative effects assessment is very important, but some challenges in doing it to cover all aspects of the environment.

A recurring theme through all of it was that there needs to be plenty of information from

all sides of perspectives on issues so that people can understand the issues and have the information to make their informed decisions. Again, we touched briefly on baseline studies and important point sort of spans into Sharon's group was the need for a baseline study on community health before projects start so that what the people in the community, effects of, or potential effects of any project can be understood, measured.

Again, recognition that there should be some local involvement in determining what parts of the environment are studied and how they're studied and that traditional knowledge should be a part of any baseline study. And in fact that NIRB considers traditional knowledge as one of the primary sources of knowledge in an assessment.

Also, while perhaps more difficult to measure or quantify, community vitality should be a element of the environment that is, the baseline is measured so that potential impacts of a project or number of projects can be determined or measured over time on the various aspects of the community, health and social well being.

Finally, there was a comment or recognition that project-specific baseline studies typically cover a small area in a distinct period of time and that for a true understanding of baseline from which we can possibly detect changes that larger areas need to be studied, such as the range, the full range of wildlife species and over a length of time that passes through perhaps several cycles of up and down in terms of good condition and poor condition.

So a lot of good feedback and I'd like to thank the group for that.

Just, I guess we're at that point where probably everyone's heard enough of me. I know Peter would like to give me the one-minute sign here. But a few more things to go through before I pass it off for closing remarks. I think certainly we've provided a lot of information and for many it was a lot of technical information. Some conflicting opinions and information, which makes it difficult to really get a confidence on what's right and what's perhaps wrong or such. So we heard a number of comments over the days that it's great to get all this information, but still there is, there are not full understanding. So there's probably a process that needs to continue and I think one of the elders this morning said, without information we feel frightened about having to make decisions. So I think one of the messages out of here, that while we've provided a lot of information, there's probably quite a bit more to do to provide, to a decision making.

So I just, with that I'd like to thank you for your patience with me and the speakers for sticking to all the maybe unrealistic time frames. But we managed to get through a lot of material and I think things generally were successful. So thanks again, and thanks to people that helped out here. I'd like to just pass it over for closing remarks and perhaps, I think Joe Kaludjak's got something, an announcement to make here. Closing remarks and announcement.

CLOSING REMARKS AND ANNOUNCEMENT

MR. KALUDJAK: (Begin Translation) It's Joe Kaludjak. Thank you. I'm Joe Kaludjak. Coming from KIA. I'd like to say a few closing words coming from KIA. Firstly, the KIA had asked for, as we wanted to inform the people of Kivalliq and we don't want this to

be the last session to happen. And as to if we were, if there was, if we were to have an information session like this type of, some who are in support and some who are not in support and these, whether we wanted to hear all the good and the bad information that we needed to know. And at this point the people out there, there were a number of people who we heard some people who didn't want the mine opening, the uranium mine opening, and some who were in support and obviously this will have to be, all this information will have to be heard by all the people of the Keewatin, Kivalliq region in all communities and concerning, I think we've got to do more studies on uranium and its effects and because it is not the work we normally do inside Nunavut, so we've got to do some more studies.

The work that we really want to do you, Inuit no doubt, now that we have Nunavut, those that you agree with and those that you disagree with, we're going to have to follow those, especially now that we Inuit have a true voice and an all right band. Because it is our land and what we heard today may be the elders, some of the elders. They have a lot to say, which is rather hard to deal with at times and we understand you, and we, and we are very thankful that our elders get the time to speak. And this was something that we wanted to hear. But some of the information that the elders have found and even though it is rather surprising when they're saying okay, go ahead, let them go ahead because we need the jobs, but I think we need more information to be heard concerning uranium and its effects.

And coming from KIA of the board members that are here, I'm very thankful that they're able to, and we normally come, we've come to Baker Lake a number of times. I think last information the AREVA had given a donation to have a dance starting at 8:00 tonight and so, and there are going to be some prizes that will be drawn tonight. Thank you very much for the chance to speak. Coming from KIA, Joe Apoolooktook (sp), who is also a member of KIA board, and so I'll give him the chance to speak. Thank you very much. KIA director and ... (End Translation)

MR. APOOLOOKTOOK: I'm Joe Apoolooktook, KIA director. I want to thank the NPC and NIRB, the Nunavut Water Board, KIA board and staff, the Hamlet of Baker Lake, particularly the Mayor Aksani (sp), the counsellors, the arena staff, AREVA, the mining industries, HTO and various committees and business sectors, and last the residents of Baker Lake for welcoming everyone that came to Baker Lake and the elders that spoke. The words that they mentioned or talked about was recorded. And we're hoping that all those who will be travelling home tonight or tomorrow will make it home safely. Mantna (sp), Thank you.

---Applause

FACILITATOR: Thank you. I've got a few closing remarks from the chairs here. I just wanted to mention that there's two headsets missing from upstairs. The square ones. If anyone has those please return them. Thank you.

(Begin Translation) Thank you for giving me a chance to say thank you for having us here. The Nunavut Planning Commission for planning this issue because that is your name, your title name, planning. And also thank you to everyone, our colleagues. And

thank you, Baker Lake, for your hospitality. And the people gave their presentation during our workshop for two days ago and I thank you. We learned a lot. We picked up many information about uranium and also the information that we received is going to be very useful. Renewable resources – where? Globally? In the world? And also for, thank you for everything who participated. People with your comments and concerns. And thank you, also thank you for being involved, my fellowship Inuit. Then in the olden days we never used to be involved. Now we do. This is going to be a very challenging job for every one of us to be participate. We are falling under Nunavut Land Claims Agreement. Same goes for Nunavut Water Board, Nunavut Impact Review Board, Nunavut Wildlife Management Board. I'm a chair to that board. And also thank you to other people I did not mention, to the community people. Thank you for giving the Inuit an opportunity to speak their mind and this has brought my mind, I learned a lot from them as well.

Since 1939 we received a letter from Government of Canada in regards to caribou Management in those days. We were not to feed on the caribou, not to kill too many caribou in each region. I understand that they were endangered at one time. That was the case with our father or grandfathers. And nowadays we have different, that we go by it's totally different. We are actually involved as the Inuit beneficiaries of Nunavut than when it was in, the end of year 1950's, early '60's. Since then, and also there was some kind of ... there was a polar bear what? ... you know, when we were, not to, back then the Inuit didn't have a voice, especially when they were deterred and the RCMP were the only direction that people could go through, so did the government, and we had nowhere to go and speak up and voice our concerns. And then by Nunavut government here in the Arctic who are not working. Oh, NWT government had brought in legislation and then they also gave quotas for catching whales and belugas, but back then we the Inuit didn't have a voice before Nunavut came in. And when the legislation came in the quotas for Polar Bears and the quotas for whales were brought in, but that is not today. Today, now that we have Nunavut with the land claims agreement we're very thankful for that. And which makes it easier because of the land claims agreement and one of the people who had signed the agreement is also here and so I'm very thankful for that too, which also created Nunavut and it also made it easier for Inuit to have a voice. And we now also have open to us as the mining companies are in the process of opening mines we now have a voice to voice our concerns.

And we also understood back in, one night we had, there were people who were in support. There were those who were not in support and especially, when someone was saying we should be given more information because we still don't completely understand. And once, I think the only way we might be able to either we're in support or non-support, but we still need more information and – (End Translation) – I'd just like to thank everybody, especially Nunavut Planning Commission for arranging this meeting. And for the participation of the other institutions and public government representatives here around the table. All of the other people that are present in the room that presented some material information that I had no idea before coming to this workshop. So I'd like to thank everybody and I also, especially like to thank the people of Baker Lake for being so accommodating while we are here. And I would like to

encourage everyone to come in and jig tonight to show your appreciation to the people of Baker Lake for accommodating us and to arranging the dance tonight at 8:00, like Joe Kaludjak said.

And we heard a rumour that the plane that comes in the morning that brings in KIA people will be heading back immediately after this meeting. I hope not. I hope they'll stay after the end of the dance at least so we can see Joe Kaludjak jigging away.

---Applause

Thank you.

MR. ALUKTANA: (Begin Translation) My name is Lucas Aluktana (sp). You can call me Luke. I would like to thank everyone. And I would like to thank for catering is here, Hugh. And the people who came here to give their presentation during the workshop. Although we were given so much information here I'm a little bit overwhelmed. And I really appreciate the fact that when Nunavut Impact Review Board, when they come here to hold meetings eventually, and like, normally we go through public hearings. In this case it might happen one of these days for the uranium mining. As a Nunavut Impact Review Board, as a board members, that's our responsibilities to hold meetings in each community. That's all I can say for now.(End Translation)

---Applause

MR. ROACH: Yes, it's Ron Roach, chair of the Nunavut Planning Commission. We've heard various points of view this week. We found those discussions very informative and we'll be using that information to do our work under the Nunavut Land Claims Agreement.

On behalf of the Nunavut Planning Commission, the Nunavut Water Board, the Nunavut Wildlife Management Board, and the Nunavut Impact Review Board, I'd like to thank your participation, for participating on this important workshop on uranium exploration and development. We appreciate that you've come and shared your information, your experience, and your perspectives.

I also want to recognize the rest of the commission that we have on behalf of the Nunavut Planning Commission. It was very nice. We have our whole board here and all of them took time out of their busy schedules because they believe this is a very important issue. So I'd like to thank them.

I would also like to thank the speakers and our many invited guests who have travelled to Baker Lake to support our discussions this week. We would especially like to thank the elders and the community members from Baker Lake and the Kivalliq region who joined us this week to share their knowledge and experiences. This workshop would not have happened without their participation.

I'd also like to acknowledge several other people. Robert Sitiniak (sp), who's the assistant SAO for the Hamlet of Baker Lake, was very good in coordinating and getting everything done through his hamlet. The staff of the community centre here in Baker Lake for setting up the workshop and helping out as required. Kathy Nitila (sp) and her

husband for the catering, the billeting, transportation, running errands. They did an excellent job. April Eecherk (sp), who is not here but she works for KIA, for helping coordinate all the Clark's participation. Mary Hunt, translator. Angie Kumuk (sp), translator. Percy Kabloona (sp), who's a translator. They did an excellent job, actually a very difficult job with the technology and the big words that were used. So I'd like to give them a super big thanks.

---Applause

And Trevor Bourke from PIDO for all of the technical equipment and expertise here. Pat Thagard for the workshop logistics. Nick, our great facilitator, who was very, thanking him for his patience and his commitment to keep this meeting on time and to move it along. It was super. It was greatly appreciated.

---Applause

And of course I'd like to thank the dedicated staff of NPC: Sharon, our executive director; Brian, who is our director of planning; Adrian, director of policy; Annie for her translating work; and a special thanks goes out to Heidi, who is our program specialist for pulling this workshop together on very short notice and taking care of all the small details.

---Applause

In closing, again I would like to thank you for participating and sharing your thoughts, your experiences, and your ideas in a thoughtful and respectful manner. I hope that you found the workshop informative and beneficial and that you enjoyed your stay here in Baker Lake. Thank you.

---Applause

MR. KIDUKSULUK: Okay. Sit down.

(Laughter)

(Begin Translation) I'm Peter Kiduksuluk (sp). Who's a member, I'm the vice-chair of the NPC and I would like to, and when our chairman was giving thanks to everyone, but he also did a lot of work. He did not mention himself. And so, and the other thing that the service, the one service, you know, my brother-in-law has been working on making sure that there's coffee available and that there's nuts available.

---Applause

And back in the early 1980's I was also involved concerning when Kiggavik was being involved and the, I think I was KIA vice-president at the time. We had heard from Inuit, but today in the last three days of our meeting, having heard what we've heard in the last few days is not really, is really different from back in the early '80's. I want people to know and understand that you all know, especially the community and people of Baker Lake, as to how Meadowbanks has been working and who's been working and what has been going on too. And these are the same, the meeting that we're having, we're just here to listen of the people of community and the people that we've asked and also

from the mining companies we wanted to hear different, all the points from every, from all of the people who had to be here. And we were given the information. Someone, the company, the mine to open those who there were those who were opposed to the mine opening and there are those who could go either way and, I'm very happy that.

Thank you people of Baker Lake as we were, every one of us who have come into Baker Lake have been welcomed no matter which body we may be a member of the board or, and those who have come who want employment, and we also want to thank the mining companies and. And here Luke from Sanikiluaq and he said he had told me that he wants to see me dancing. So I'm glad I'm going to stay so I can learn how Sanikiluaqmiut dance.

---Applause

As Joe Kaludjak was saying, now KIA and we, those of us in NPC and also AREVA, thank you, thank you very much as these three organizations had donated money for the dance tonight. And I think I'm the last person to speak on this from NPC. I had asked someone if they, that if the mayor, if Lucy Iyago, we had asked if you could come up here and say the closing prayer. (End Translation)

UNIDENTIFIED MALE SPEAKER: (Begin Translation) Okay. Go ahead Joan. Lucy, please start moving forward. (End Translation)

MS. SCOTTIE: (Begin Translation) I'd like to say a few short words myself as we're, as we are closing the meeting. If you can hear me. Yesterday obviously we, from, as they had been travelling and I asked to find out travelling in the community, when we first heard that we were obviously surprised. Especially when a lot of people in town had not heard or not even decided. And as Joe was saying that this is not the last, and there weren't that many people, there weren't that many people who spoke yesterday and we were cut off because, and there weren't, but I also wanted to thank you. I want to thank NPC. We're here. Thank you for coming. And it seems we are forgetting the elders, some of the, Dr. Gordon Edwards, if you don't know him. And the person beside him, Mr. Simpson. Simpson, I forgot his first name, but these two elders we, when they were speaking we did feel something, you know, over the years we'd been giving concerning uranium, but except we still haven't heard Everything that could be dangerous. And when they came here we heard information that that seemed to be, we got to be able to hear both sides. We need to hear the good and the bad. We have to hear both. (End Translation)

The people in this community, we are the ones that are going to be affected if there's potential risks to our health. I am very happy that we heard what we heard from Dr. Gordon Edwards and from this gentleman, Mr. Simpson. Because we have to hear a balanced report. We want to hear both sides, the good and the bad. This is what you call a balanced report. Only then we can honestly, with informed minds, make, we can make responsible decision for our future generations. Thank you.

---Applause

Okay, Joan. (Begin Translation) Maybe this is, we're going to have Lucy Iyago. Give her

a chance to speak of what her thoughts and then she'll close the meeting with a prayer. (End Translation)

MS. IYAGO: (Begin Translation) Yes, I'm Lucy Iyago. Having been, last year I was a councillor, a hamlet council and of course we did work hard on Meadowbanks project and now they're in the process of opening. In the process of development. Today, the last few, because my heart, I have not been attending a lot of meetings, but I'm hearing. When we, when ever, there weren't a lot of things, we were hungry, we had, and we weren't able to get dead anything. There were times we didn't even have food. And sometimes all we had was water to drink and now today, now that we have Nunavut, the Inuit are being recognized as to how hard they had to work on the land as I had been, as I had gone part of it. I'm very thankful for that.

Today Inuit now are part of either a member of a board and so I'm even, I even support having a young person to be part of any board because, especially when you think, look at the youth especially because they have got nothing to do and they do things that they're not supposed to do. So I'm in support for the youth to try anything, go into any board, or whatever they would like to try. Today.

And especially those who, obviously they're going to have a heavier job than what we're going through today. And our children and children, grandchildren are going to go through harder times than we are today. They should, if they want they should be part of any board or councillors and then I support, and I would like to see that because we should not only be thinking about only for ourselves. We've got to think of, for our grandchildren or their grandchildren so that they can run their own lives the way they want.

I'm going to end there. And so, let us pray. I think you can, you don't, because you worked hard you don't have to stand. You did a lot of work. Thank you very much. Today. And today, because, being amongst people I recognize some people. There are some people I don't recognize, but I'm not as lonely being here. (End Translation)

Closing Prayer

MS. IYAGO: (No Translation)

---Applause

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