MACKENZIE VALLEY ENVIRONMENTAL

IMPACT AND REVIEW BOARD

GIANT MINE REMEDIATION PROJECT

ENVIRONMENTAL ASSESSMENT HEARING

EA 0809-001

Mackenzie Valley Review Board:

Richard Edjericon   Chairperson

Danny Bayha   Member

John Curran   Member

Richard Mercredi   Member

James Wah-shee   Member

Percy Hardisty   Member

Rachel Crapeau   Member

HELD AT:

Tree of Peace, Yellowknife, NT

Evening Session at Chief Drygeese

Conference Centre, Dettah

Yellowknife, NT

September 12, 2012

Day 3 of 5

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 1   --- Upon commencing at 9:08 a.m.

 2

 3   THE CHAIRPERSON: Good morning. Good

 4   morning. Somebody wants to talk.

 5

 6   (BRIEF PAUSE)

 7

 8   THE CHAIRPERSON: Good morning. Can we

 9   get everybody to their seats? We could start. Good

10   morning. Can I get everybody to see if we could start.

11

12   (BRIEF PAUSE)

13

14   THE CHAIRPERSON: I'd like to ask our

15   Elder Michele Paper to come up to do the opening

16   prayer. Maybe, Randy, can you walk him up to the

17   podium?

18

19   (OPENING PRAYER)

20

21   THE CHAIRPERSON: Good morning. Mahsi,

22   Michele Paper, for doing the opening prayer. We -- we

23   had a very good meeting last night. We met till 11:00

24   last night to listen to the pubic concerns from the

25   community here at Yellowknife.

 1   The agenda for today that -- that's in

 2 your booklets for Wednesday, I'm going to -- the order

 3 is going to continue to be the same. The only thing is

 4 that I'm -- I'm going to add at the end is that

 5 yesterday we -- we had -- didn't have a chance to

 6 finish off a presentation of the water treatment and

 7 management.

 8   And the parties were -- to make

 9 presentations were the North Slave Metis, they had five

10 (5) minutes; Environment Canada had fifteen (15); DFO

11 had ten (10); and the City had fifteen (15). I'm going

12 to move that to the end of the day. And the agenda for

13 today we -- we -- I'd like you guys to take a look at

14 your presentation and maybe you could help me to

15 tighten up your belts, and -- in terms to make a little

16 bit of time, if we can. And -- so I'm going to ask you

17 to -- to look at that for me.

18   And -- so we have this morning -- before

19 we start, if you could just turn off your cell phones

20 or put them on vibrate or low and so that we have no

21 interruptions.

22   So this morning we have the Developer's

23 presentation on surface remediation, and then after

24 that we will go for questions, then -- and -- and to

25 the Developer on their presentation, and then -- and so

1 on. Then after that, we have parties' presentations

2 for surface remediation from YKDFN. They got thirty

3 (30) minutes. Alternatives North, fifteen (15); North

4 Slave Metis, five (5). And then we'll break for lunch.

5   And then -- and we'll see where we're at

6 in terms of try and maintain the schedule. And then --

7 and then the afternoon we have parties' presentation

8 again on surface remediation. I'll call -- Environment

9 Canada has twenty-five (25) minutes; DFO, fifteen (15);

10 and the City has fifteen (15). So -- and then the idea

11 was to wrap up the -- probably about 3:00. But I want

12 to see what we can do is to make up some time for -- on

13 this water treatment management from yesterday, so I'm

14 going to put that at the end of the day.

15   So with that, I want to go directly into

16 the -- the Developer's presentation on surface

17 remediation.

18

19   (BRIEF PAUSE)

20

21   THE CHAIRPERSON: Whenever you're ready

22 you can proceed.

23

24 PRESENTATION BY THE DEVELOPER - SURFACE REMEDIATION:

25   MR. MICHAEL NAHIR: Okay. Thank you,

12

1 Mr. Chair. I'll just introduce, very briefly, the

2 panel. I introduced them yesterday on water, but I --

3 I'll just simply mention that the presentation will

4 come from -- sorry, this is Mike Nahir. I forgot to

5 mention that.

6   So first we'll have John Hull, then

7 we'll have Rudy Schmidtke, and then we'll have Bruce

8 Halbert after. So I'll introduce John Hull to come to

9 the podium please.

10

11   (BRIEF PAUSE)

12

13   MR. JOHN HULL: Good morning, Mr.

14 Chair. I'd like to talk today about surface

15 remediation and management overview.

16   Slide 2, please. Discussion today will

17 be on Baker Creek, open pits, existing tailings --

18

19   (BRIEF PAUSE)

20

21   MR. JOHN HULL: Demolition and debris,

22 and air quality.

23   Slide 3, please. Baker Creek focuses on

24 the bank overtopping and flood protection to protect

25 the mine. One of the major elements in design was

 1 looking at IR-12 and the risk management and -- and

 2 risk with consequences noted and then identify

 3 mitigation measures.

 4   The expectation is that when the creek

 5 is reha -- rehabilitated and the project's finished,

 6 there will be an added benefit with improved stream

 7 flow and water quality.

 8   Slide 4, please. The design -- the

 9 objectives of the remediation were to reduce the risk

10 to the flooding of the mi -- underground. The first

11 identification was that the dikes that are presently

12 there will only handle a capacity for a one (1) in two

13 hundred (200) year storm event.

14   This was identified, and work was done

15 in 2011 to improve the dikes so that they now handle --

16 just handle 1:500. The ultimate design will be 1:500

17 plus the 2 metres of anchor ice. There's also, in this

18 plan, an effort to minimize seepage to the underground,

19 and that is part of the underground remediation work.

20   There's also -- as a benefit, there

21 would be a small channel that would maintain the low --

22 low flow and ultimately similar to what has happened in

23 Reach 4, improve the fish habitat. So at the end, the

24 measures all have a positive change to upgrade the

25 channel and the reg -- flow regime and the habitat.

14

1   Slide 5, please. What I wanted to show

2 here is that over the course of the operations, the

3 creek has been modified several times in the area,

4 downstream, and -- where'd it go?

5

6   (BRIEF PAUSE)

7

8   MR. JOHN HULL: Downstream and A2, the

9 creek used to flow through the middle of A2. In the

10 area of C1 it use to go through the middle of C1. It

11 now goes just to the west. And in Reach 4, it used to

12 go through a millpond in this area. So there have been

13 upgrades to the -- the creek.

14   Slide 6, please. What I'm showing here

15 is the hydrograph for the creek since 1968. This is

16 the data that -- that we've used in the analysis. The

17 peak flow that was observed, which is shown on this

18 graph, is at 8.4 metres cubed per second, and that

19 occurred in 1991. But generally the flows are fairly

20 low, if you'll note.

21   The next slide, please. What we've

22 identified that the average flow is in the order of 2

23 to -- 2 to 3 cubic metres a second. What we've

24 designed for is 1:500 years, which is around 25 cubic

25 metres per second. If you'll note, that the maximum

 1 flow that's been recorded on the creek is down around a

 2 1:50, 1:40 year return period.

 3   Next slide, please. Taking that design

 4 what we've proposed in looking at the channels that are

 5 upstream of the -- Baker Creek upstream of the line

 6 sight between Martin Lake and Baker Pond, and in part

 7 Reach 2, which is the area just beside the highway.

 8   It has a low-flow section which is 6

 9 metres wide. The -- the creek channel would be, for

10 the most part, in the middle of this -- this area.

11 That's sort of what you see with the Reach 4 area,

12 where the -- the creek is in a small section in the

13 middle.

14   Power to manage the bigger flows, design

15 -- we've gone to the next slide, please, 9. Thank you.

16 The ultimate channel width will be 32 metres. And

17 again, depending on the material on either side --

18 either soil or rock -- the side slopes are defined.

19   Next slide, please. Based on the

20 experience in 2011, where there was anchor ice, there

21 was about a metre, metre and a half of anchor ice in

22 Baker Creek. We've made an allowance for 2 metres of

23 anchor ice in the design. Talking to the water

24 resources group in the Territories, they have an

25 appreciation and understanding of how often this would

 1 occur. Talking to the gentlemen at the mine and based

 2 on the mining traditional knowledge or information,

 3 they haven't seen this much anchor ice since they've

 4 been on the -- the property.

 5   Next slide, please. What I said before

 6 is we've designed the -- the channel to pass a 1:500

 7 year storm. We've put that storm on top of the anchor

 8 ice so that it -- again, this is a -- a conservative

 9 approach.

10   And finally, we added -- next slide -- a

11 metre freeboard so that it is in fact a very

12 conservative design and can pass definitely more than

13 the 1:500 year storm. Our anticipation is that the

14 frequency of the anchor ice and the potential that the

15 1:500 year storm will occur is very remote. It is a

16 possibility, but very remote.

17   So ultimately, this is consistent with

18 what you would see in the Reach 2 area. It's got a

19 low-flow channel, it's got a wider flood plain, and

20 then there's steep banks on either side. So again, a

21 very conservative design for the channel.

22   Slide 14, please. Thank you. One (1)

23 of the options that we've looked at in moving forward

24 is the DAR identifies channel -- the channel Reach --

25 Reach 4 -- Reach 3, sorry, moving to the east of the C1

 1 Pit. We've identified that there's a potential to move

 2 the channel to the west side.

 3   Next slide, 15, please. The key here is

 4 that we move the creek relocation away from any

 5 underground workings, again reducing the risk of

 6 potential flooding of the creek into the underground

 7 workings.

 8   Also I note that this is C2 -- C2-12

 9 (phonetic) which is one of the arsenic chambers. So

10 we're moving the creek away from that area, again

11 reducing the risk and the possibility of flooding of

12 the mine.

13   Next slide, please. We have currently

14 undertaken a sediment study for Baker Creek. This

15 included all of the reaches from Reach 1 up to Reach 6.

16 The study has -- is in final draft at the moment.

17 We've had some questions back from Public Works.

18 There's some minor modifications being made. And the

19 sediment study will be submitted in final draft to

20 public works by the end of the month.

21   They would then review it and share it

22 with DFO and Environment Canada. The whole point of

23 the sediment study was to collect data so that we could

24 do -- or, they could do decisions on the remediation

25 for the creek.

 1   Once the review by DFO and Environment

 2 Canada is done, the expectation, intent, and plan of

 3 Public Works is to put that out for the general public.

 4 I'm not sure of the schedule, when that would actually

 5 happen. The anticipation is sometime towards the end

 6 of the year, or early next year.

 7   Next slide, please. There has been some

 8 -- well, the new highway is definitely outside of the

 9 scope of the project. What I want to say is that the

10 high -- new highway alignment would come in this area,

11 would not impact any of the planned activities or

12 scheduling for work on Baker Creek. So it does not

13 impact what would happen for Baker Creek.

14   Next slide, please. So the -- the focus

15 for the remediation is to increase the physical

16 stability of Baker Creek, reducing the risk to flooding

17 the mine either from overtopping and/or from collapse

18 or seepage into the mine. The -- the second part of

19 that is improved by work underground to backfill some

20 of the stopes and address areas in the mine which may

21 cause -- or, impact the surface by collapsing or other

22 issues. And at the end of the day, collecting or

23 getting stakeholder input for Baker Creek, the options,

24 what is going to be the final design.

25   Slide 19, please. Next I'd like to talk

 1 about open pits. The focus for the open pits is to --

 2 for public safety. I know -- this is Pit A2. There is

 3 minor ravelling of the pit slope which is anticipated,

 4 but overall the main slopes are very stable and the

 5 rock quality is excellent.

 6   Next slide, please. What I'd like to

 7 confirm or re -- reiterate to everybody are the

 8 locations of the pits: A2 and A1, C1, B1 and B2, B3 and

 9 B4. What the key here is, to note that the underground

10 is -- operations and stopes are immediately underneath

11 all of the open pits. And they are im -- an impact and

12 part of the design consideration for the open pit

13 slopes in the long term. You will note on this slide,

14 the highway alignment that's shown on this slide is the

15 highway alignment that is in the DAR.

16   Next slide, please. As I indicated, the

17 key for the open pits remediation plan is public safety

18 and to restrict access; also to protect the environment

19 and any adjacent or lo -- critical surface features

20 beside the open pits. In the post -- in the closure

21 period, that would include the freeze at B1 and

22 adjacent to C1.

23   This is accomplished with restricting

24 access with fences and berms, consistent with standard

25 practice for open pits and closing open pits in Canada.

1 Again, appropriate signage. B1 Pit would be

2 specifically backfilled, as it impacts the freeze and

3 is required to -- to be backfilled so that the freeze

4 oper -- operation can proceed.

5   Finally, all of the openings to surface,

6 we've identified thirty-five (35), we've actually

7 identified at least a couple of more at the south end -

8 - south end of B1. There has been a minor sinkhole

9 develop, and that has to be added to the openings to

10 surface which have to be closed.

11   Next slide, please. So the focus at the

12 -- for the open pit remediation is to increase public

13 safety by restricting access. And as I noted, B1 Pit

14 needs to be backfilled as part of the freeze program

15 for Stopes B208 and B213.

16   Next slide, please. Tailings. The

17 tailings will be covered. This shows a shot of the

18 northwest pond, and this is the north pond which is

19 used for storage of water and part of the water

20 treatment plan -- the water treatment operation.

21   The next slide, please. Pointing out

22 the tailings areas. The original areas are the north

23 pond, central pond, and the south pond, and the north

24 west pond, which is where surface wa -- the water is

25 now collected from the underground each year before

 1 it's treated. And as everybody knows, the water

 2 treatment plant is just in -- in this area, the -- the

 3 current plan.

 4   Next slide, please. The de -- design

 5 objectives for the remediation is to isolate the

 6 tailings from contact from humans and/or hel --

 7 wildlife. There is an expectation that the final plans

 8 will allow for future uses for these areas. That is

 9 going to require input from stakeholders and other --

10 others with -- who are associated with the project.

11   We are also planning to use or obtain

12 almost all, if not -- the desire is all of the borrow

13 from on site so that there's no disturbance off site

14 for borrow to cover the tailings. We would also

15 address the historic tailings that are in the foreshore

16 in the area da -- below Dam 11 of the south pond.

17   Slide 26, please. Just to reiterate the

18 bore areas, we've identified several bore areas.

19 There's -- there's approximately a million cubic metres

20 of material that we've identified for the cover. We've

21 also identified several areas where there would be rock

22 quarries as a spillway that's required to help the

23 drainage off of the closed north, central, and south

24 pond. There's a spillway required for the northwest

25 pond.

22

1   And, as I said, if the diversion on

2 Reach 3 is identified, in this area, the material that

3 would be retained from that excavation would be used,

4 in part, to cover the tailings, either this -- the

5 original area or the northwest pond. So the -- the

6 focus there is to get the material from the site and

7 just maintain the disturbance on the mine site.

8   The next slide, please. The -- the

9 design for the tailings cover, the thicknesses have not

10 yet been confirmed. There's some preliminary numbers

11 in the DAR that have been refined and would be

12 optimized based to minimize and some reduction of

13 infiltration. But the key, again, is a surface zo --

14 zone, which is a vegetational area, which is a sa --

15 silty clay, clay silt, the gravel that would reduce and

16 separate that and act as a barrier for infiltration.

17   The -- the tailings will be regraded for

18 drainage so that there is positive drainage and gravity

19 drainage towards a series of channels that would have

20 rock or riprap, based on the area that is collected and

21 the flows that are anticipated.

22   Slide 28, please. As I mentioned,

23 there's some tailings that were initially placed in the

24 foreshare -- foreshore area. I believe that was in the

25 first year of operation, before they started on -- on-

 1 land disposal. Part of this area has been covered with

 2 a cap that is consistent with the lower one.

 3   The water level is typically in the zone

 4 of the riprap. And in this, the wave action is in this

 5 upper zone. This is the zone where there's less wave

 6 action. The anticipation is that when the final design

 7 is done, this is the cover that would be placed on the

 8 foreshore tailings to finish off that part of the

 9 project.

10   The next slide, please. So the tailings

11 will be, as -- when finished, isolate the tailings from

12 humans and wildlife. They're also -- give the

13 opportunity for other end-uses, which definitely are

14 not part of what we've done to date, but the input from

15 others, the City, the local First Nations, and the

16 Government of the -- the Northwest Territories.

17   With that, I thank you. And I will pass

18 the discussion or presentation over to Rudy.

19   MR. RUDY SCHMIDTKE: Thank you, John.

20 Mr. Chair, Rudy Schmidtke. We talked a little bit

21 yesterday about some contaminated soil. I'll try to

22 make this brief. The intent at the Giant Mine site is

23 to excavate contaminated soils and mine waste rock.

24 And that will provide the opportunity for future land

25 use at the site.

 1   I just wanted to be clear that

 2 contaminated soils and mine waste rock are -- are a

 3 little bit different. And here's an example of some of

 4 the mine waste rock, which is a natural rock, that

 5 exists at the site that will also be addressed in the

 6 remediation.

 7   The next slide, please, slide 31 -- or,

 8 slide -- thank you. The site -- the -- the

 9 contaminated soils on site will be remediated to the

10 GNWT industrial standards. That material that is

11 excavated will be placed in the frozen zone in B1 Pit

12 to facilitate the drilling of some of the freeze pipes

13 for the underground freeze program. And by doing this,

14 we improve the quality of -- of the surface conditions.

15

16   Now, this work will be done in the mine,

17 in the disturbed areas already, and then areas not used

18 for mining may be available for residential use.

19   Slide 32, please. This map shows an

20 extent of what we know today of where we have

21 identified some contaminated soil and/or waste rock.

22 These are depicted in these red areas. Currently we

23 have an estimate of about 900,000 cubic metres of soil

24 to manage.

25   Slide 33, please. Once the soil is

 1 excavated -- and some areas will be capped which I'll

 2 discuss in -- in some detail in a few slides from now,

 3 this is what's left. Here's the -- the main sort of

 4 mine mill site area, a little bit of some of the

 5 tailings that will be capped in here. These are --

 6 these are areas that -- that do not see excavation

 7 greater than 2 metres and that are capped.

 8   Slide 34, please. Now, we have a lot of

 9 material, and it also provides some opportunity for the

10 reuse of that material and recycling of that material.

11 We plan to incorporate it as fill so that we can move

12 the trucks and scrapers, or whatever equipment the

13 contractor choses to use, in the placement of -- of the

14 tailings cover. The ground is very soft, and we'll use

15 that material to help support that equipment.

16   As I mentioned before, a lot of the

17 material will be placed in B1, and there's also

18 opportunity to use this material as intermediate cover

19 in the proposed landfill that will house some of the

20 demolition and debris that will be generated from site

21 demolition.

22   Slide 35, please. As mentioned before,

23 and I think we talked about it yesterday, the plan --

24 the remediation plan is to remove the -- to the

25 industrial standard, up to 2-metre depth, and cover

1 that material. The reason for the 2-metre depth is to

2 -- and -- and the cover material is to eliminate the

3 soil exposure pathway.

4   As I mentioned, we're going to cover

5 that material. It'll be similar -- it'll be clean

6 material. And -- and once we are done, the arsenic

7 levels in the surface will be low enough to provide

8 industrial use everywhere. And in some cases where the

9 excavation is -- is less than 2 metres, it will provide

10 opportunity for other uses, and we anticipate this to

11 be, in most places, in the former town site area.

12   Slide 36, please. Now, in addition to

13 the soil contamination program and removal, we also

14 need to demolish some of the mine infrastructure and

15 eliminate some of those public safety hazards. The

16 plan right now is to engage interested parties to

17 preserve what historic buildings we can, where

18 possible.

19   We plan to recover hazardous building

20 materials in structures and underground before

21 demolition. After that is completed, demolish the

22 structures and utility lines, decontaminate materials,

23 dispose of on site or off site, and collect the surface

24 debris that we find on the mine site.

25   Slide 37, please. To manage some of

 1 this waste, it is proposed to build a

 2 commercial/industrial-waste-type landfill. This is for

 3 non-hazardous material and asbestos. We would follow

 4 the regulations in NWT where asbestos can be landfilled

 5 in this type of landfill. We propose to double-bag

 6 that in addition to the guidelines.

 7   We plan to reuse the mine waste rock for

 8 intermediate fill, and we also plan to put some of the

 9 -- the plant sludge in a dedicated cell, which is also

10 classified as non-hazardous waste. The roaster complex

11 and other arsenic trioxide wastes will be placed in the

12 -- in the B1 pit, where it will be frozen, and in the

13 underground, where it will also be frozen.

14   Slide 37 -- oh, slide 38, thank you. As

15 I mentioned before, in addition to these buildings, we

16 have identified twenty-three (23) surface debris areas.

17 And you can see those scattered in amongst the over one

18 hundred (100) structures on the mine site. And we've

19 identified some of these debris areas in these hatched

20 areas.

21   Slide 39, please. I just wanted to

22 quickly show everyone the relative volumes that we've

23 identified at the site. You can see that the non-

24 hazardous waste material dominates, and a lot of the

25 other general products certainly do not make up the --

 1 the major volume of -- of non-hazardous material. But

 2 these are some of the other wastes that we will -- we

 3 will manage: petroleum products, asbestos, chemicals,

 4 PCBs in ballasts, mercury in switches, lead, leachable

 5 paint components, some mineral process wastes, and then

 6 the arsenic-impacted waste which would be frozen.

 7   Slide 40, please. As I showed in the

 8 other slide, the previous slide, the non-hazardous

 9 waste we plan on putting on an engineer -- into an

10 engineered landfill located in the central pond. The

11 asbestos, following the regulations, will be placed in

12 an on-site engineered landfill.

13   All of the processed ores from the

14 crusher, conveyer, and building will be placed into the

15 tailings pond. Any chemicals that we identify will be

16 shipped off site. Leachable lead painted materials

17 will be sent off site. The arsenic trioxide dust, as I

18 mentioned before, will be frozen. And the new water

19 treatment plant sludge will be placed in a dedicated

20 fill on -- on site.

21   Slide 41. Currently the plan is to

22 place the landfill in a previously disturbed area in

23 the central pond area, near the former tailings

24 reprocessing plant. This is already disturbed and

25 provides an opportunity for us to minimize any other

 1 land disturbance on the site.

 2   Slide 42, please. One component of the

 3 -- of the demolition program is the -- the high-risk

 4 component is the roaster complex. There are risks

 5 today. We have exposed arsenic trioxide in flues. We

 6 have loose asbestos. We've observed some movement in

 7 the support columns. There's certainly a lot of

 8 corrosion and openings that have developed over time.

 9 And we have a plan right now in place to address some

10 of these risks, and we want to get ready to mitigate

11 those risks. So specifications are underway.

12   Slide 43. I don't know if you can see

13 very well, but you can see here some of the columns.

14 You can see a -- one (1) of the columns on a -- on a

15 deteriorated concrete footing with a bunch of just

16 wooden shims put in place. You can see the flues.

17 Openings to these flues are where arsenic trioxide dust

18 is contained. We have openings, and we have some of

19 the loose asbestos.

20   Slide 44, please. So the program for

21 the demolition will certainly eliminate the physical

22 and chemical risks, increase the public safety, and we

23 feel that it will not result in any adverse impacts or

24 long-term management of the demolition waste once these

25 building comes down, especially the -- the roaster

1 complex.

2   And, Mr. Chair, we are very anxious to

3 get to work on that roaster complex. With that, I'd

4 like to pass it over to Mr. Halbert. Thank you.

5   MR. BRUCE HALBERT: Thank you, Rudy.

6 Bruce Halbert, for the record. I'm going to speak in

7 the next few moments about the work that has been

8 undertaken to assess impacts to the project on air

9 quality.

10   Next slide, please, 46. I start by

11 noting that in the long term, after remediation is

12 completed, that the air quality on the site would be

13 substantially improved as a result of covering or

14 eliminating sources and establishing vegetative cover

15 throughout the site area, as -- as mentioned

16 previously.

17   The main focus, therefore, of this air

18 quality assessment is on impacts during the remediation

19 phase. And that has been taken in -- and in doing

20 that, we've taken into account mitigative measures

21 where appropriate.

22   Slide 47, please. The assessment itself

23 was undertaken using a modelling package supported by

24 the US Environmental Protection Agency, referred to as

25 CALPUFF/CALMET. It is used extensively by us and

 1 others in this type of application.

 2   The assessment of air quality included

 3 multiple sources. Typically we undertake an assessment

 4 using a -- a maximum working scenario, if you will.

 5 We, therefore, considered numerous remediation

 6 activities occurring on site at the same time. And we

 7 included the effects of operation of the Jackfish Power

 8 Plant at an output of capacity of 18 megawatts, of

 9 which 3 megawatts is anticipated to be required by the

10 site, for operation of the freeze plant in particular,

11 and a provision here for 15 megawatts of power output

12 to supply to the City.

13   Now a note on this particular point is

14 that the 18 megawatts of power output is -- is a high

15 number. We've assumed this would occur twenty-four

16 (24) hours a day, three hundred and sixty-five (365)

17 days a year. An actual fact, the City has operated

18 above 13 megawatts of megawatt power output only about

19 fi -- .5 percent of the time. So it's a very

20 conservative assessment.

21   Slide 48, please. This slide shows the

22 activities that were considered to be going on at the

23 same time for input being in the north here. We have

24 the northwest tailings pond. We have windblown dust

25 coming off this -- this area of the site. We also

1 accounted for windblown dust coming off the nor --

2 north and the central pond areas.

3   We've allowed for re -- remediation

4 activities occurring on the south tailings area, again

5 with the windblown dust and the effects of -- of

6 activities -- activities themselves. We have

7 demolition of the roaster complex going on, as well as

8 remediation of contaminated soils, as Rudy has

9 mentioned, and particular in that area, where there's

10 some of the worst contaminated soils.

11   And we also have allowed for freeze

12 drilling operations going on at the same time. We've

13 taken into account disposal of contaminated materials

14 within the B1 Pit. And finally, we've allowed for

15 activities occurring at the lower end of Baker Creek,

16 remediation activities as well as operation of borrow

17 pit sources.

18   And finally, we've included in the

19 assessment, as I mentioned, the operation of the

20 Jackfish Power Plant. So we -- we've really assumed

21 here a lot of activities occurring at the same time.

22   Slide 49, please. This slide summarizes

23 -- and it could be better visuals -- the sources of --

24 that were considered here. So this -- on the left side

25 we're looking at mainly dust sources originating from,

1 as I mentioned, windblown activities. We have

2 operation of haul trucks, excavation equipment,

3 handling of materials, dumping, loading, et cetera, all

4 of which contribute to -- to air quality impacts on

5 dust, as we typically measure three (3) levels here.

6   TSP is total sus -- suspended

7 particulate. PM10 is particle size of less than 10

8 micron in size. PM2.5 is less than 2.5 micron in size.

9 Those are -- all three (3) of those are a measure of

10 effects on dust, air quality. And we also have

11 accounted for arsenic, which is variable between

12 sources.

13   In addition to these sources of inputs,

14 we also have exhaust occurring from operation of haul

15 trucks and other equipment on -- as part of the site

16 activities, as well, as I mentioned, the Jackfish Power

17 Plant. These sources contributed to nitrogen oxides,

18 noted here as "Nox"; sulphur dioxide, "SO2"; and PM2.5.

19   Slide 50, please. The assessment was

20 undertaken for both -- to exposure to the public both

21 on site and off site. The model was run on an hourly

22 time basis over a full year. The model runs that were

23 taken included six (6) discrete off-site receptor

24 locations that I'll identify in the next slide, as well

25 as we'll -- we undertook a separate assessment of the

1 potential exposure to a hiker traversing through the

2 site on the existing alignment of the Ingraham Trail,

3 not the proposed new alignment. And we compared these

4 predictions and to the -- to air quality criteria.

5   Slide 51, please. This slide identifies

6 the off-site receptor locations that were considered.

7 We have up in the re -- north side of the site, R1,

8 which is in the area of the Yellowknife River Park. We

9 have a receptor location in N'Dilo, another in Back Bay

10 at the boat launch, in the area of the municipal

11 landfill. R6 is -- R6 is located in the Niven Lake

12 residential area. And at the bottom of this slide, we

13 show the location of the existing air quality

14 monitoring station operated by the GNWT at the Sir John

15 Franklin High School.

16   The next slide, please, 52. So to move

17 right to the findings. We found in -- that there were

18 -- the air quality criteria were low compared to the

19 Canadian guidelines in most instances. No exceedances

20 predicted for four (4) of the parameters that were

21 looked at -- TSP, PM10, arsenic, and sulphur dioxide --

22 at any of the off-site receptor locations.

23   We did predict a very low probability of

24 exceeding the one (1) hour criterion for nitrogen

25 dioxide and the twenty-four (24) hour criterion for

1 PM2.5 at the -- at one (1) location, that being in the

2 area of the Nevin Lake community.

3   Again, this is at the operation of the

4 power plant at an output of 18 megawatts. At a more

5 normal operating level of 12 megawatts, we predicted no

6 exceedances of air quality at any of the off-site

7 receptor locations.

8   Slide 53, please. The results of the

9 air quality assessment have been provided by the GNWT

10 to -- to NWT Power, and they are in discussions on

11 options to mitigate potential exceedances in that Nevin

12 Lake area and, if necessary, undertake monitoring.

13   Mitigation measures. This would include

14 various mitigation measures besides whatever activities

15 or mitigation measures come out of that discussion.

16 There is mitigation measures that the project can

17 undertake, and that would include reducing the power

18 requirements at critical time periods to reduce the

19 demand on the power -- on the -- on the plant itself.

20 So outputting less power.

21   Next slide, please. As I mentioned, we

22 also undertook an assessment of the potential exposure

23 of someone hiking through the site on Ingraham Trail.

24 To undertake that assessment, we esti -- we estimated

25 that someone walking at 4 kilometres an hour would take

 1 approximately two (2) hours to move through the site

 2 and back again.

 3   We therefore estimated the air quality

 4 at nine (9) locations along the trail and averaged

 5 those and used those in the assessment of exposure to

 6 an individual while they -- while they move through the

 7 trail on a regular basis. Not just once, but on a

 8 regular basis.

 9   Next slide, please, 55. Moving right to

10 the findings of that particular assessment. Again, we

11 -- we found that the predicted exposures were low

12 compared to published guidance in the literature. We

13 don't have, for example, one (1) hour or two (2) hour

14 criteria for every parameter. And we focussed this

15 assessment on two (2), that being PM2.5, which is --

16 studies have found is the most important particle size

17 fraction related to health effects on people, and to

18 arsenic, of course.

19   The PM2.5 exposures predicted to -- were

20 predicted to fall below incremental exposure criterion.

21 There was a very low probability though of exceeding

22 the arsenic exposure criterion for non-carcinogenic

23 effects. There are two (2) types of effects we

24 typically look at for arsenic exposure.

25   And this would occur only though under

1 high-wind conditions. And there are -- there are

2 mitigation measures that can be taken to -- certainly

3 to avoid that occurring, including shutdown of

4 activities under very high wind conditions. With

5 respect to carcinogenic effects, the exposure

6 assessment indicated that -- that the levels were below

7 benchmarks for all modelled conditions.

8   Slide 57, please. Yeah, that one (1),

9 sorry. Okay. I'm now going to move briefly and just

10 talk about the air quality monitoring program that's

11 proposed for the site and what's existing already.

12   In 2004, the -- the project under --

13 undertook to establish air quality monitoring on site,

14 measuring TSP and metal levels over the -- over the

15 open -- non-frozen part of the -- of the year, if you

16 will. In addition, there's -- as I mentioned

17 previously there's ambient air quality monitoring

18 undertaken by the territories at the Sir John Franklin

19 School location for all parameters that we've

20 discussed.

21   The existing air moni -- air quality

22 monitoring pro -- program will be modified during the

23 course of the development of the -- details of the site

24 remediation plan and incorporated into an air quality

25 environ -- environmental management plan, or EMP, prior

1 to undertaking remediation activities.

2   That air quality monitoring plan will

3 identify action levels and trigger -- trigger

4 additional management activities, if required, on site

5 as activities proceed. In addition to this, these very

6 specific two (1) activities, there will be a site-wide

7 air quality monitoring program put in place, and that

8 will continue throughout the course of remediation

9 activities over the whole period of -- of site

10 remediation, and for -- proposed right now for an

11 additional three (3) years thereafter.

12   Next slide, please. This slide

13 identifies the locations of these monitoring stations

14 I've mentioned. They are around the perimeter of the

15 site in all directions, from the north to the west and

16 along the east side and the -- the old Giant Mine site

17 area.

18   Next slide. So to conclude, the air --

19 the assessment of air quality effects during

20 remediation activities, they pose minimal risk to the

21 public in the Yellowknife study area -- that is the

22 off-site receptors -- and pose minimal risk to members

23 of the public while hiking or biking on Ingraham Trail,

24 if that continue -- should remain in place over the

25 course of remediation activities.

 1   Air quality in the post-remediation

 2 period, as I've previously mentioned will be improved

 3 through the elimination of dusts on site, part --

 4 particularly from the tailings areas and road network

 5 that exists on site today.

 6   And with that, Mr. Chairman, we conclude

 7 our presentation.

 8

 9   (BRIEF PAUSE)

10

11   THE CHAIRPERSON: Thank you for your

12 presentation. Again, the -- the presentation was on --

13 the Developer's presentation on surface remediation of

14 Giant Mine.

15   Now we go -- we'll go into questions

16 from parties and responses from the Developer. So

17 first that I have is the City of Yellowknife. Is there

18 any questions to the Developer on their presentation?

19

20   (BRIEF PAUSE)

21

22 QUESTION PERIOD:

23   MR. JEFF HUMBLE: Thank you, Mr. Chair.

24 Jeff Humble from the City of Yellowknife. I would like

25 to -- to begin by kind of providing a -- a bit of an

40

 1 overview of a land use plan concept that we've shared

 2 with the -- with the Giant Mine working team here.

 3   Essentially, as -- as a result of the --

 4 the IRs, we -- there was an agreement that we would

 5 work with them to develop a framework for a land use

 6 strategy, and we've been going back and forth.

 7   We've been trying our best at the

 8 municipal level to understand what the -- the real

 9 issues are, in terms of -- in terms of future land use

10 of the site. So the concept here, essentially, provide

11 a mixture of uses that we think would be compatible

12 with the future of the site.

13   Starting with the town site, we envision

14 this to be a mixed-use area. And then we envision,

15 coming up along the shoreline, some residential

16 opportunities, and then additional residential and

17 potential nature preservation or park space in this

18 area.

19   The area where the tailings ponds are

20 quite a large area, stretching onto the other side of -

21 - of the roadway. We envision potential for both

22 passive and active recreation.

23   This has been done in many other places

24 in North America and we think this is a viable future

25 use for the site. We recognize that there are parts of

41

1 the site that are heavily contaminated and that will

2 not be remediated beyond, and cannot be remediated

3 beyond, the industrial standard. We've identified

4 pockets where we think there is some suitability for

5 industrial development.

6   So I guess leading into that, we've

7 shared this with the -- the working group. And the

8 question is: Does the working group see this as a

9 viable plan going forward?

10   THE CHAIRPERSON: Okay. Before I go

11 to the Developer to the question, on the agenda we

12 designated thirty (30) minutes for questions and

13 responses, so I'm hoping to keep in that time frame.

14 So I'm going to encourage the parties to really

15 prioritize their questions.

16   I'm going to go the Developer on their

17 pre -- to the question.

18   DR. RAY CASE: Thank you, Mr. Chair,

19 Ray Case. At a conceptual level, the -- the

20 remediation plan, as put forward in the DAR, would

21 accommodate the -- the proposal or the -- the plan that

22 they've got up on the screen there.

23   To expand on that, the -- there is going

24 to be a portion at the centre -- centre of the property

25 that will either be reserved for use in the care and

 1 maintenance of the property over the long term.

 2   There will be areas there that will not

 3 be suitable for anything other than industrial use.

 4 There will be areas in the tailings ponds after they're

 5 capped that can accommodate activities, such as passive

 6 recreational, that do not disturb the -- those covers

 7 and can work with the intent of -- of those covers.

 8   And there are areas along the shore of

 9 Back Bay -- much of the area is already at a -- a

10 residential standard that would permit the development

11 of -- of residence. The -- there are areas in the area

12 that they have now shown as mixed use that are

13 contaminated above industrial standards. The

14 remediation plan calls for those to be areas to be

15 excavated and, as appropriate, refilled with materials

16 that would be at residential standards.

17   As the remediation goes forward, there

18 may be some identification of areas that, for one

19 reason or another, remain at an in -- industrial

20 standard. Those would be identified early in the

21 process with -- with the City and other stakeholders to

22 agree upon a mechanism that can accommodate those in

23 the -- the planning for the -- for the area.

24   THE CHAIRPERSON: Okay, thank you, I'll

25 go back to the City of Yellowknife.

43

 1   MR. JEFF HUMBLE: Thank you. Jeff

 2 Humble, City of Yellowknife. Mr. Chair, in addition to

 3 the land use, we cannot look at -- at the future use of

 4 the site without considering the transportation

 5 impacts. The Developer has certainly proposed a major

 6 transportation system that essentially bypasses the

 7 mine site. But if we're looking at future land use on

 8 the site, we need to also consider the transportation

 9 impacts on the site. And that's not just trail

10 development. It includes roadway systems.

11   Right here, again, we've incorporated

12 roadway network systems in through the site. And we

13 want to get some position, I guess, from the Developer.

14   Are these suitable road network systems,

15 and how does the Developer envision connecting the

16 various land uses on the site, the residential,

17 potential commercial, mixed use, and recreational

18 areas?

19   THE CHAIRPERSON: Okay. To the

20 question to the Developer.

21   DR. RAY CASE: Thank you, Mr. Chair.

22 Ray Case. The transportation network on -- on the site

23 will be -- the existing transportation network on the

24 site will be used to the extent possible to facilitate

25 the remediation of the site.

44

 1   Where new infrastructure may be required

 2 to contribute to the remediation project, the project

 3 is willing to discuss with the City and -- and

 4 stakeholders the location of that infrastructure, if --

 5 if it can address a future use, while at the same time

 6 ensuring that it is conducive to and supports the

 7 remediation project as we put forward.

 8   THE CHAIRPERSON: We'll go back to the

 9 City.

10   MR. JEFF HUMBLE: Thank you, Mr. Chair.

11 Jeff Humble, City of Yellowknife. We spent

12 considerable time with the Developer on -- on

13 developing this framework. And it is the City's

14 position that a land use plan was part, or should have

15 been part, of the remediation plans. And here we are,

16 at the end of a twelve (12) year process, and only now

17 is this issue coming to the surface.

18   If this is not an acceptable land use

19 plan, we would like to ask the Developer to submit what

20 they envision to be the future land use plan for the

21 entire site. I've been a planner for more than ten

22 (10) years, and I've never seen a land use plan come at

23 the tail end of a -- of a process. It's simple

24 Planning 101 that you look at incorporating these

25 things as the development scheme concept into the early

45

1 stages of a major initiative and a half million dollar

2 project. And we're seeing this essentially coming at

3 the end of the process.

4   So my question to the Developer is: If

5 this is not a viable land use plan, can we have a

6 viable land use plan in place that we can engage the

7 public on and -- and move forward to incorporate that

8 into the remediation plans?

9   THE CHAIRPERSON: Okay, thank you.

10 Before I go to the Developer, to the City, how many

11 more questions do you have?

12   MR. JEFF HUMBLE: About three (3) more.

13   THE CHAIRPERSON: Can you prioritize

14 that?

15   MR. JEFF HUMBLE: Yes, I can.

16   THE CHAIRPERSON: Thank you. I'm going

17 to go to the Developer. And if you could just maybe

18 shorten your comments.

19   DR. RAY CASE: Thank you, Mr. Chair.

20 As indicated earlier, at a conceptual level we do see

21 this land use plan as consistent with the remediation

22 project. The -- I think the -- where the discussion

23 is, is to what extent will this project turn into a

24 development of a either recreational or -- or

25 residential use area. And we've indicated that we'll

1 work with the City to design and implement our

2 operations that can facilitate that in the future as we

3 go forward.

4   THE CHAIRPERSON: Okay, thank you.

5 I'll go to the City.

6   MR. JEFF HUMBLE: Jeff Humble, City of

7 Yellowknife. In addition to the land use site, the

8 area that's been deemed to be out of scope is the area

9 around the Giant Mine town site, and that is

10 essentially an area that's been used as a -- as a

11 mooring facility. It's an area that's identified in

12 our harbour plan as a potential marina.

13   That has been deemed to be outside of

14 the scope of the project. However, the Developer

15 indicated that they would work with the City in terms

16 of delineating sediment contamination previously.

17   We have no indication, moving forward

18 with the City, whether or not we can actually invest

19 our time and efforts in making that a marina site. And

20 we have no answer from the Developer what the

21 environmental impacts or liabilities will be on this.

22 So we're kind of a bit in limbo. We find it a bit

23 ironic that that is deemed to be outside of the scope

24 of the project; however, the diffuser, which is in the

25 Yellowknife Bay area, is not.

47

1   So we'd ask: Is the Developer willing

2 to work with the City on clearly delineating the

3 environmental impacts of that, in terms of a future

4 marina site and the dredging activities that could

5 potentially required for -- for that particular

6 component?

7   THE CHAIRPERSON: Okay, you had three

8 (3) questions. That's one (1) of the three (3). Can

9 we -- are you prioritizing your questions?

10   MR. JEFF HUMBLE: Yes.

11   THE CHAIRPERSON: Because they're

12 really long. And I wanted to see if you could

13 summarize that. Thank you. I'm going to go to the

14 Developer.

15   MR. MICHAEL NAHIR: Thank you, Mr.

16 Chair. Mike Nahir. We -- we -- although it is out of

17 scope, we have agreed with the City on that, and we've

18 -- we have made that commitment to the City. And we

19 will work with the City to help delineate that -- that

20 area that the City's referring to. Thank you.

21   THE CHAIRPERSON: Thank you. Back to

22 the City.

23   MR. JEFF HUMBLE: Thank you, Mr. Chair.

24 Jeff Humble, City of Yellowknife.

25   Will the Developer be committing to

1 providing complete development permits for all

2 activities on the site, including submission of

3 performance bond requirements, as per the City of

4 Yellowknife zoning bylaw?

5   THE CHAIRPERSON: Thank you for your

6 second question. I'll go back to the Developer.

7   MR. ADRIAN PARADIS: Adrian Paradis, on

8 behalf of the project team. We'll apply with all

9 applicable legislation. Thank you.

10   THE CHAIRPERSON: Thank you. To the

11 City for your final question.

12   MR. JEFF HUMBLE: Will the -- Jeff

13 Humble, the City of Yellowknife. The Developer has

14 previously committed to a public open house session

15 with the general public on a community land use

16 charette.

17   Can the Developer reconfirm that

18 commitment and that that will lead to a finalization of

19 a land use plan that -- that we can integrate with the

20 remediation plans?

21   THE CHAIRPERSON: Thank you for your

22 final question. I'm going to go to the Developer.

23   DR. RAY CASE: Thank you, Mr. Chair.

24 Ray Case. The -- the project has -- has committed to

25 participating in a public session to take a look at

 1 future land use and committed to working with the City

 2 to set up that and the -- provide the information from

 3 the project needed to inform the workshop.

 4   THE CHAIRPERSON: Okay, thank you. I'm

 5 going to move to the Yellowknives Dene First Nation.

 6   MR. TODD SLACK: Thanks, Mr. Chair.

 7 Todd Slack, Yellowknives Dene. I have four (4) lines

 8 of inquiry in which there's multi-part, but very short,

 9 questions. I'll start with the last topic, the air

10 quality.

11   What measures would the project suggest

12 are required to provide for enforceable mechanisms so

13 that the parties may be assured that the commitments

14 made here and in the DAR are going to be carried out?

15   THE CHAIRPERSON: Thank you. To the

16 question to the Developer.

17

18   (BRIEF PAUSE)

19

20   MR. ADRIAN PARADIS: Adrian Paradis, on

21 behalf of the project team. Our intention is to

22 incorporate these -- incorporate any of the findings

23 from the Review Board or other regulatory agencies into

24 our environmental management system. If this includes

25 air quality, that will be intro -- incorporated and

1 brought into our planning. Thank you.

2   THE CHAIRPERSON: YKDFN, to your second

3 question.

4   MR. TODD SLACK: I'm sorry, Mr. Chair,

5 can I just ask a point of clarification on that?

6   THE CHAIRPERSON: Proceed.

7   MR. TODD SLACK: Thank you, and my

8 apologies. Is the Proponent suggesting that in -- to

9 create an -- the enforceable mechanism, that a measure

10 from the Review Board is required?

11   THE CHAIRPERSON: Thank you. I'll go

12 back to the Developer.

13   MR. ADRIAN PARADIS: Adrian Paradis, on

14 behalf of the project team. No, that was not my

15 intention. If it is the -- the Board finds that that

16 is within their jurisdiction, I think we can

17 incorporate protective air quality standards into our

18 planning, and those will be followed. Thank you.

19   THE CHAIRPERSON: Okay, thank you.

20 YKDFN, to your second question.

21   MR. TODD SLACK: Thank you, Mr. Chair.

22 I'll return to that during our presentation. The next

23 question I believe is for Mr. Hull, and it's a three

24 (3) part question, all very short.

25   One of the primary objectives of this

1 project was to restore Baker Creek to a pro --

2 productive condition. Is that correct?

3   THE CHAIRPERSON: Thank you. To the

4 question, Developer...?

5   MR. JOHN HULL: John Hull. One of the

6 objectives will be to improve and -- Baker Creek so

7 that it is returned to a condition conta -- not the

8 same, but moving towards a reha -- rehabilitated creek,

9 yes.

10   THE CHAIRPERSON: Thank you. You had

11 four (4) questions. It's like a politician; you make

12 it into seven (7). So continue on in your two (2) --

13 three (3) part question number 2.

14   MR. TODD SLACK: I will combine this

15 into one (1) question then. Always flexible.

16   I would ask Mr. Hull then, in that -- in

17 that case, could you remind us how many primary

18 objectives are listed in the DAR, and then can you

19 indicate which slide provides the details on the

20 restoration work that will be done in order to complete

21 the restoration as ill -- or, as described in tho --

22 those objectives?

23   THE CHAIRPERSON: Okay, thank you. To

24 YKDFN, was that your third question?

25   MR. TODD SLACK: Correct.

52

1   THE CHAIRPERSON: Okay, thank you. I'm

2 going to go to the Developer.

3   MR. JOHN HULL: There are -- there are

4 five (5) primary objectives. We've -- we've flagged

5 three (3) of the key ones. So that -- that is part of

6 the -- the DAR. We just focussed on the -- the three

7 (3) -- the three (3) key ones in the presentation.

8   THE CHAIRPERSON: Thank you. I'll go

9 back to YKDFN.

10   MR. TODD SLACK: I'm -- I'm sorry, Mr.

11 Chair, I didn't quite get an answer to that so I'll ask

12 it in a slightly different way, if that's okay?

13   THE CHAIRPERSON: Please proceed.

14   MR. TODD SLACK: Can you please provide

15 which slide in your presentation details the work that

16 will be undertaken to meet the Baker Creek restoration

17 objective as listed in the primary objectives in the

18 DAR?

19   THE CHAIRPERSON: Okay, thank you.

20 That was a rephrased question. Back to the Developer

21 to question number 3.

22

23   (BRIEF PAUSE)

24

25   MR. JOHN HULL: If I -- Mr. -- Mr.

53
 1 Chair, John Hull. Slide 4 identifies the -- the remed

 2 -- remediation objectives. A lot of the details still

 3 need to be worked out with the stakeholders -

 4 specifically, DFO, Environment Canada, and I would

 5 anticipate the YKF Dene -- Yellowknife Dene.

 6   THE CHAIRPERSON: Okay, thank you, Mr.

 7 -- I'll go to YKDFN to your fourth question, if that

 8 answers your question?

 9   MR. TODD SLACK: Thank you, Mr. Chair.

10 Yes, that's a -- an answer. And then my -- as my final

11 question -- and it's unfortunately a two (2) part

12 question with straightforward answers, I think. The

13 Proponent has indicated that they are going to dispose

14 of both hazardous and non-hazardous waste on the site.

15   Can you indicate why this reclamation

16 should including -- include using the Chief Drygeese

17 territory as a garbage dump, rather than use such a

18 site that has been specifically designed, constructed,

19 and managed for this operation? That's part A.

20   Part B: Can you detail what specific

21 actions has the -- that the project have undertaken to

22 secure community approval to use this area as a refuse

23 dump?

24   THE CHAIRPERSON: Okay, that's your two

25 (2) part question? Thank you. I'll go back to the --

 1 and that's your final question. Thank you. I'll go to

 2 do the Developer.

 3   MR. RUDY SCHMIDTKE: Thank you, Mr.

 4 Chair. Could I get the first question again, please?

 5   THE CHAIRPERSON: I'll go back to

 6 YKDFN.

 7   MR. TODD SLACK: Certainly, my

 8 apologies. The Proponent has indicated that they will

 9 dispose of bi -- of hazardous and non-hazardous waste

10 on the site.

11   Can you please indicate why this

12 reclamation should include turning the Chief Drygeese

13 territory into a garbage dump, rather than use a

14 different site that had been specifically designed,

15 permitted, constructed, and managed for this op -- for

16 such an operation?

17   THE CHAIRPERSON: Thank you. I'll go

18 to the Developer to part 1 of this question.

19   MR. MICHAEL NAHIR: Thank you, Mr.

20 Chair. Mike Nahir. Thank you for the question. I

21 just want to point out that the gar -- the -- the dump

22 location is in an industrial area. It's already a

23 tailings pond; it's a mine site area. It's a very

24 small area within that and is consistent with the

25 industrial land use designation of that area. Thank

 1 you.

 2   THE CHAIRPERSON: Thank you. And I'll

 3 go back to YKDFN.

 4   MR. TODD SLACK: And -- well, thank you

 5 for that answer. I don't really agree with it.

 6   But part B is: Can the project detail

 7 what specific actions have been done to secure

 8 community approval to turn this area -- which I'll

 9 remind everyone is adjacent to the capital of the

10 Northwest Territories, N'Dilo, and Dettah -- and to use

11 this area as a refuse dump? Thank you very much.

12   THE CHAIRPERSON: Thank you, I'm going

13 to go to the Developer.

14   DR. RAY CASE: Thank you, Mr. Chair.

15 Ray Case. The -- as indicated, the area being proposed

16 is an industrial site. It is -- already contains

17 tailings. That is a waste site. The -- the non-

18 hazardous materials will go in there, along with the

19 only hazardous material being asbestos. I think the

20 presentation was clear that other hazardous ma --

21 materials would be taken off of site.

22   This environmental assessment process is

23 looking at the project and will be -- is one (1)

24 opportunity to de -- to determine the appropriateness

25 of -- of all aspects of -- of the project. In

56

 1 addition, the project has committed and is working with

 2 the Yellowknives Dene to secure input and advice on all

 3 aspects of the remediation project now and, I think

 4 we've heard the commitment earlier, on an ongoing

 5 basis.

 6   THE CHAIRPERSON: Thank you. We'll go

 7 back to YKDFN.

 8   MR. TODD SLACK: Thanks, Mr. Chair.

 9 I'm not sure that we got an answer there and if -- I'll

10 ask it one (1) more time, but I'm happy to move on if

11 you so direct.

12   THE CHAIRPERSON: Please proceed.

13   MR. TODD SLACK: I'm looking for

14 specific actions, because as we heard from the Chief in

15 -- in the introduction, the community version of a

16 reclamation is different than your version. And I

17 accept that you guys see it differently.

18   So what specific actions have been

19 undertaken to secure that community approval to turn

20 this area -- to -- forever as a dump?

21   THE CHAIRPERSON: Okay. Thank you. To

22 the Developer to the question.

23

24   (BRIEF PAUSE)

25

1   DR. RAY CASE: Mr. Chair, if I might --

2 it's Ray Case. To help me understand the question

3 perhaps, is -- is the question: What has been done

4 with the Yellowknives Dene to get their approval to

5 leave this site as an industrial area and a waste site?

6   THE CHAIRPERSON: Thank you. We'll go

7 back to YKDFN. If you could maybe help rephrase your

8 question so that they understand the question.

9   MR. TODD SLACK: Thanks, Mr. Chair.

10 I'll give it a shot. So the project is proposing

11 disposing non-hazardous and hazardous waste in an

12 engineered landfill. The Yellowknives have made it

13 clear throughout this hearing that they have a

14 different of what reclamation should've been.

15   The question I'm asking is: What

16 specific actions has the Proponent undertaken to convey

17 the fact that this will be not just a frozen block into

18 the future, but now this is going to be a garbage dump?

19   And I -- I -- I'm not sure if I can make

20 that clearer, the idea being that you're looking for

21 community endorsement and community support, or at

22 least community understanding. Sorry, Todd Slack,

23 YKDFN.

24   THE CHAIRPERSON: Okay, thank you.

25 I'll go back to the Developer.

 1   DR. RAY CASE: Thank you, Mr. Chair.

 2 Ray Case. As indicated, the -- the site is a hazardous

 3 -- there -- there are wastes across the -- the current

 4 Giant Mine site. The intention here in creating a -- a

 5 non-hazardous waste landfill in the middle of the

 6 tailings pond is to move waste from the site to another

 7 location so that more of the area is available for

 8 future use.

 9   Hazardous materials are going into the

10 B1 pit and the frozen block. Non-hazardous materials -

11 - such as wood, remains of some buildings -- will go

12 into an engerred land -- engineered landfill that will

13 be developed in a way that ensures that those -- those

14 materials don't end up scattered around -- around the

15 site, as they currently are.

16   THE CHAIRPERSON: Okay, thank you. I

17 think what I'll do is YKDFN has an opportunity to do a

18 presentation, so we'll leave it at that. We'll

19 continue on, the North Slave Metis.

20   Does the North Slave Metis have any

21 questions to the Developer on their presentation?

22   MS. SUSAN ENGE: Thank you, Mr. Chair.

23 Susan Enge, Metis Alliance. I noticed on slides 10,

24 17, 20, 21, 25, and in your general discussion this

25 morning, in response to stakeholder input that you see

1 the stakeholders including DFO, Environment Canada,

2 YKDFN. But I see absolutely no reference to the North

3 Slave Metis Alliance.

4   We have made an extra effort to be here,

5 because we care about what's going on at that mine and

6 the remediation plan that you're presenting today. So

7 with that in mind, I have a question for the Developer.

8   What steps and measures do you intend to

9 take to ensure that the Metis have some legitimate

10 input, time allotted to consider your options that you

11 have -- are obtaining as we speak regarding the

12 tailings remediation. And I think you also mentioned

13 contaminated soil near mine waste rock.

14   What measures and steps do you intend to

15 take to ensure that our issues are addressed and you

16 are actually speaking to us in person? Thank you.

17   THE CHAIRPERSON: Thank you. I'm

18 going to go to the Developer to the questions.

19   MR. ADRIAN PARADIS: Adrian Paradis, on

20 behalf of the project team. We have provided multiple

21 avenues for the North Slave Metis Alliance to

22 participate through the -- our participations in the

23 environmental assessment, through the Giant Mine

24 community alliance, through the environmental

25 monitoring and working group of the parties.

60

1   The North Slave are welcome to attend

2 any and all. If further discussions are required

3 outside of those venues, we are welcome to tho -- that

4 -- to that input. Thank you.

5   THE CHAIRPERSON: Okay. Thank you.

6 I'm going to go back to the North Slave Metis.

7   MS. SUSAN ENGE: Thank you, Mr. Chair.

8 Susan Enge, Metis Alliance. And I just heard probably

9 no less than five (5) minutes ago from one of your

10 Developer spokespersons that -- that he stated the

11 remediation of the Baker Creek plan is not completed

12 but will eventually involve stakeholder input,

13 specifically YKDFN.

14   And I would like to know if he intends

15 to extend that invitation to the North Slave Metis

16 Alliance.

17   THE CHAIRPERSON: Thank you. I'm

18 going to go to the Developer on the question.

19   MR. ADRIAN PARADIS: Adrian Paradis, on

20 behalf of the project team. Yes.

21   THE CHAIRPERSON: Thank you. To the

22 North Slave Metis, I'm just -- a matter of time, I just

23 wanted to see how many questions you have.

24

25   (BRIEF PAUSE)

 1   THE CHAIRPERSON: That's it?   Thank

 2 you very much, North Slave Metis.   I'm going to go to

 3 Environment Canada.

 4   MS. AMY SPARKS: Thank you, Mr. Chair.

 5 Amy Sparks, Environment Canada.   We have no questions

 6 for the Developer at this time.   Thank you.

 7   THE CHAIRPERSON: Thank you.   I'm

 8 going to go to the Department of Fisheries and Oceans.

 9   MS. BEV ROSS: Bev Ross, Fisheries and

10 Oceans Canada.   We have no questions for the Developer

11 at this time, Mr. Chair.

12   THE CHAIRPERSON: Actually, I wanted

13 you guys to go back and ask questions.   I'm just

14 kidding.   Thank you.   I want to continue on to the

15 Board technician -- advisors.

16

17   (BRIEF PAUSE)

18

19   THE CHAIRPERSON: Before I go to --

20 yes, I did.   I'm sorry.   I over -- overlooked the

21 Alternatives North.   Sorry, Mr. O'Reilly.

22   MR. KEVIN O'REILLY: Sorry, with your

23 indulgence, Mr. Chair, there's one (1) document that

24 I'd like to use for one (1) of the six (6) questions

25 I'd like to ask. And I -- I just want to get it up on

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 1 the screen, if I may.

 2   THE CHAIRPERSON: Yeah, absolutely.

 3   MR. KEVIN O'REILLY: Thank you.

 4

 5   (BRIEF PAUSE)

 6

 7   THE CHAIRPERSON: Yeah, please proceed,

 8 Mr. O'Reilly.

 9   MR. KEVIN O'REILLY: Thanks, Mr. Chair.

10   THE CHAIRPERSON: And you had -- you

11 had six (6) questions?

12   MR. KEVIN O'REILLY: That's correct.

13   THE CHAIRPERSON: Thank you.

14   MR. KEVIN O'REILLY: Thank you, Mr.

15 Chair. Kevin O'Reilly, Alternatives North. And I

16 really tried to trim them down here. The first

17 question I want -- I'm going to ask is with regard to

18 air quality.

19   And in one (1) of our slides in our

20 presentation -- I'm not going to put it up, it's number

21 12 -- it's very clear that the exposure limit for

22 twenty-four (24) hour exposure to arsenic is exceeded

23 in a good part of the -- the -- where the mine is

24 located. And we'll see that in a slide in our

25 presentation.

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 1   So I'm just wondering: How is the

 2 Developer going to protect workers on site during the

 3 construction period when we would expect to see a lot

 4 of dust being generated, and are there any standards

 5 that they have to protect the workers?

 6   MR. ADRIAN PARADIS: Adrian Paradis, on

 7 behalf of the project team. I will ask -- on to Mike

 8 Nahir.

 9   MR. MICHAEL NAHIR: Thank you, Mr.

10 Chair. Mike Nahir. The -- as part of the construction

11 work, there's site-specific health and safety plans

12 that are generated for workers that are based on

13 anticipated exposure and -- and the working conditions

14 that they're under, which is a normal part of

15 construction management and -- and, as well, on

16 contaminated site management.

17   So that's -- that -- and that's a

18 document that's developed and reviewed by the -- I was

19 going to say workers' compensation board, but I forget

20 the exact title.

21   THE CHAIRPERSON: Thank you. Mr.

22 O'Reilly...?

23   MR. KEVIN O'REILLY: Thanks, Mr. Chair.

24 May I just ask one (1) quick follow-up? The

25 modelling's been done. It shows that the exposure

64

1 limit is going to be exceeded for a good part of the

2 mine area for the workers.

3   And has -- has there been any specific

4 assessment work to look at what kind of health effects

5 there might be then for the workers at site? Thanks.

6   THE CHAIRPERSON: Thank you. To the

7 Developer to the follow-up question.

8   MR. BRUCE HALBERT: Bruce Halbert, Mr.

9 Chair. The -- the simple answer is: No. That is --

10 will be det -- part of the details of developing

11 environmental management plans for each site or

12 activity. And as appropriate, protective measures

13 would be put in place, depending on the areas where the

14 work is being undertaken.

15   One additional note I would make is that

16 the -- the information that Mr. O'Reilly's referring to

17 is for maximum exposures, not representative

18 necessarily of average conditions across the site.

19   THE CHAIRPERSON: Okay, thank you. I

20 want to go to Kevin O'Reilly to your second question.

21   MR. KEVIN O'REILLY: Thanks, Mr. Chair.

22 Kevin O'Reilly, Alternatives North. I want to move to

23 some questions with regard to the site stabilization

24 plan. That's the -- the document that's up on the

25 screen. It's dated October the 14th, 2011. And it

 1 was, I guess, approved by the -- the Minister of

 2 Aboriginal Affairs Northern Development Canada in early

 3 November.

 4   We didn't actually get a copy of this

 5 until August of this year, after we asked many, many

 6 times for it. And I -- I'm just wondering: Would it

 7 be a fair characterization of this document to say that

 8 it really was to preauthorize exemptions of portions of

 9 the Giant Mine Remediation Project from this

10 environmental assessment?

11   Is that a fair characterization of what

12 this plan is all about? Thank you.

13   THE CHAIRPERSON: I'll go to the

14 Developer.

15   MR. ADRIAN PARADIS: Adrian Paradis,

16 half -- on behalf of the project team. No.

17   THE CHAIRPERSON: Thank you. I'll go

18 to Mr. O'Reilly, third question.

19   MR. KEVIN O'REILLY: Great, thanks. We

20 beg to differ, but...

21   In several places in this plan, there's

22 commitments, particularly on page 2 and other places,

23 to communications engagement strategy has been

24 developed to secure the support of key partners and

25 stakeholders, a number of commitments like that in this

 1 document to consult with people about it.

 2   So why couldn't we get this until August

 3 of this year, after repeated requests for it? We asked

 4 them in emails. We asked you to try to facilitate them

 5 producing it. We didn't get it until August.

 6   And the way we are finding out about

 7 this was the Developer was in discussion with staff at

 8 the Mackenzie Valley Land and Water Board to seek

 9 regulatory approvals to carry out this work. And those

10 staff with the Land and Water Board were filing

11 material on their public registry. That's how we were

12 finding out about it.

13   So why is it, with the commitment in

14 here to engage the stakeholders in meaningful ways and

15 early and so on, why is it that we only got this in

16 August of this year, after repeated requests? Thank

17 you.

18   THE CHAIRPERSON: Thank you, Mr.

19 O'Reilly. Mr. O'Reilly, how far is your office from

20 their office?

21   MR. KEVIN O'REILLY: Sorry, it's Kevin

22 O'Reilly, I didn't understand the question.

23   THE CHAIRPERSON: Oh, no, how far is --

24 how many blocks is it away from their office, from your

25 office to their office?

 1   MR. KEVIN O'REILLY: Probably about

 2 four (4) blocks.

 3   THE CHAIRPERSON: Okay, thank you. I'm

 4 going to go to the Developer to the question. If you

 5 could help answer that. We're only four (4) blocks

 6 away. Thank you.

 7   MR. ADRIAN PARADIS: Adrian -- Adrian

 8 Paradis, on behalf of the project team. Communications

 9 and engagement is part of the -- part of all of our

10 work. A specific document does not mean engagement or

11 con -- or engagement or communication.

12   Elements of this project have been -- of

13 the site stabilization plan have been discussed at the

14 October 2011 technical workshops held by the Impact

15 Review Board. There have been open houses in May.

16 There have been meetings between myself and other

17 parties in the environmental assessment over the course

18 of the last year.

19   There have been documents on the

20 engineering and the risk assessments that have been

21 submitted to both the Mackenzie Valley Environmental

22 Impact Review Board as well as the Mackenzie Valley

23 Land and Water Board previous to this.

24   This document in and of itself is not

25 part -- make up the sole communication or engagement.

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1 It is an entirety. Thank you.

2   THE CHAIRPERSON: I don't know if you

3 answered that question. I'm just wondering, I mean,

4 the repeated request comes in. I just want to know,

5 was there a response from your office to his office in

6 re -- in regards to the request?

7

8   (BRIEF PAUSE)

9

10   MR. ADRIAN PARADIS: Adrian Paradis, on

11 behalf of the project team.

12

13   (BRIEF PAUSE)

14

15   MR. ADRIAN PARADIS: Elements of --

16 Adrian Paradis, on behalf of the project team.

17 Elements have been discussed and were facilitated. The

18 request was made through the Impact Review Board. We

19 have not received a response about how to deal with

20 that.

21   We did provide it as in one -- and the

22 elements were provided to Mr. O'Reilly. Thank you.

23   THE CHAIRPERSON: Okay. Well, at least

24 we know where we can improve. Okay, thank you. I'm

25 going to move on to your fourth question, Mr. O'Reilly.

 1   MR. KEVIN O'REILLY: Thanks, Mr. Chair.

 2 It's Kevin O'Reilly. I'm not quite sure how to

 3 coordinate this, but I -- I just want to take a moment

 4 and scroll through this document, if I may.

 5   THE CHAIRPERSON: That's -- this will

 6 be your fourth question coming up?

 7   MR. KEVIN O'REILLY: Yes.

 8   THE CHAIRPERSON: Okay. Thank you.

 9

10   (BRIEF PAUSE)

11

12   MR. KEVIN O'REILLY: Thanks. Kevin

13 O'Reilly, with Alternatives North. And thanks, Adrian,

14 for the flicker here. So this is the document that was

15 provided by the Developer. And I'm just wondering if

16 the -- we're looking at this document on the screen.

17 There's been a number of areas of the document that

18 have been blacked out.

19   And I'm just wondering if the Developer

20 can explain what's in there. I'm very curious to know

21 why that material has been blacked out. Thank you.

22   THE CHAIRPERSON: Okay, that's your

23 fourth question. Thank you. And to the Developer, is

24 this document a public document?

25

 1   (BRIEF PAUSE)

 2

 3   MS. JOANNA ANKERSMIT: Thank you, Mr.

 4 Chair. This document was a document that was put

 5 together because, as we have mentioned a number of

 6 times, we are managing a couple of things going on at

 7 the site.

 8   We had risk assessments and high-risk

 9 items that we needed to -- to communicate to senior

10 management, including the Minister of Aboriginal

11 Affairs and Northern Development. This document

12 contains information related to financial information

13 that -- that, if released, would create an unlevel

14 playing field in -- in the sense of procurement, that's

15 commonly kept out of the public domain until after

16 contracts are let, and also Cabinet confis -- confid --

17 confidences.

18   So the document is available on the --

19 the Review Board website. It was submitted by the

20 Developer. And, like has been mentioned, all the

21 aspects of the project -- all of the elements of the

22 site stabilization plan were communicated with the

23 parties at various times in the last -- at least over

24 the last year. Joanna Ankersmit.

25   If I could add, Mr. Chair -- actually,

 1 I'm -- I'm just going to leave it at that. Thanks.

 2   THE CHAIRPERSON: I was kind of excited

 3 there -- you were going to go up there and grab the mic

 4 and start singing.

 5   MS. JOANNA ANKERSMIT: Be careful what

 6 you wish for.

 7   THE CHAIRPERSON: Thank you. So just

 8 coming back to your question, then. This document is -

 9 - is not a public document; it's an internal document.

10 Is that correct?

11   MS. JOANNA ANKERSMIT: Thank you, Mr.

12 Chair. Joanna Ankersmit. Yes, internally, it was a --

13 an internal communication document, but it has been

14 released publicly with the redactions that -- that you

15 see in front of you. And it is on the Mackenzie Valley

16 Impact Review Board website. If I could just take a

17 moment?

18   MS. HEATHER POTTER: Hello, it's

19 Heather Potter. I'm counsel with Justice Canada for

20 the Proponent. I would just like to add to Ms.

21 Ankersmit's answer that the SS plan is out of the scope

22 of what is considered in -- as part of this EA, but

23 some of the activities described therein are subject to

24 the EA.

25   The redactions that were made in the

 1 plan are not part and parcel of any of the activities

 2 that are subject to this environmental assessment.

 3 Thank you.

 4   THE CHAIRPERSON: Okay, thank you.

 5 We're going to stop there and we'll come back in ten

 6 (10) minutes. Mr. O'Reilly, you've got two (2) more

 7 questions after that. Thank you.

 8

 9 --- Upon recessing at 10:45 a.m.

10 --- Upon resuming at 11:01 a.m.

11

12   THE CHAIRPERSON: Good morning. Can I

13 get everybody back to their table? We could start. We

14 -- we got special guests here this morning. I'd like

15 to maybe invite the teacher up here to the podium and

16 just to introduce your class. We have guests from the

17 St. Pat's High School, grade 11 class, and so I'll just

18 maybe get the teacher to introduce the students.

19   MR. MYLES RADCHENKO: Thank you very

20 much, Mr. Chair. I really wasn't expecting this, but

21 my name is Myles Radchenko. I'm the science department

22 head at St. Patrick's High School. So it's my pleasure

23 this morning to bring along by Biology 20 class, period

24 2 class. So they're sitting back here, and they're

25 here to experience this public consultation process.

 1   So they're citizens of the future, and I

 2 -- I think many of them are planning on making

 3 Yellowknife their homes. And, of course, they are

 4 going to have to live with the legacy of the Giant

 5 Mine, just like the rest of us.

 6   So we can only stay for an hour, or just

 7 before 12:00, so thank you for the opportunity to have

 8 me introduce them.

 9   THE CHAIRPERSON: Thank you. I'd like

10 to welcome all the students here today. Thank you very

11 much for coming and listening in on our process.

12 Mahsi.

13   Before I go to the last two (2)

14 questions for Mr. O'Reilly, I -- I want to make up a

15 little bit of time for the time we lost yesterday. So

16 I want to say that we're going to break for lunch from

17 12:00 to 12:30, and we will continue at 12:30 onwards.

18 And lunch is -- is on your own, so we'll -- we'll go

19 after 12:30.

20   So I want to go to Mr. O'Reilly, to your

21 fourth -- sorry, your fifth question out of six (6).

22   MR. KEVIN O'REILLY: Thanks, Mr. Chair.

23 It's Kevin O'Reilly with Alternatives North. I think

24 in the presentation today, we heard that there's some

25 urgency with regard to the roaster complex demolition,

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 1 because it's a highly contaminated part of the -- the

 2 mine site.

 3   I was at an Industry Canada -- or,

 4 sorry, an industry day that the Developer put on. I

 5 think it was around the early August. And the -- there

 6 is some work that's being done by Public Works and

 7 Government Services Canada to begin to contract this

 8 work out.

 9   And I'm just wondering, as I understand

10 it, Public Works and Government Services Canada, they

11 have emergency authority for contracting; but, as I

12 understand it, this is just going through their regular

13 route.

14   Can they explain, if this is such an

15 emergency, why they're not using their emergency

16 authority to contract that work? Thanks.

17   THE CHAIRPERSON: Thank you, Mr.

18 O'Reilly, for your fifth question. I'm going to go to

19 -- to the Developer to the question.

20

21   (BRIEF PAUSE)

22

23   MR. ADRIAN PARADIS: Adrian Paradis, on

24 behalf of the project team. I will start off, and I

25 will ask Mr. Henry Westermann, Director of Public Works

75

1 and Government Services, to speak to contracting

2 authority.

3   The work -- the roaster work, as well as

4 the underground work, is a part of the environmental

5 assessment. There is an urgency in relation to both,

6 but it is in the planning sessions right now for if and

7 when this work needs to occur.

8   With that, Mr. Westermann, can you

9 please come forward?

10   MR. HENRY WESTERMANN: Henry

11 Westermann. I'm with Public Works and Government

12 Services Canada. The -- the roaster complex has been

13 identified as an urgent problem. Our process for

14 engaging contractors for this highly complex work is

15 very detailed and thorough, and we are ensuring that we

16 follow the -- we take all the necessary steps to engage

17 a highly qualified company who will conduct the

18 deconstruction in a very safe manner. And so that's

19 the process we're currently following.

20   This is -- and we're conducting it as --

21 in a manner of which addresses the urgency. Should an

22 emergency occur, in which case a failure prior to our

23 completion of our process occurred, we do have the

24 ability to -- to engage our emergency precautions,

25 which would be done, should the emergency actually

1 present itself.

2   Currently, our process is being

3 conducted in a way that we obtain in a very fair and

4 competitive manner, obtain the best possible contract

5 we can to ensure that the work is done safely.

6   THE CHAIRPERSON: Okay. Thank you.

7 Before we move on to Kevin O'Reilly, this -- this

8 process we're in right now, it's the Giant Mine

9 Remediation Project. We're here to do the

10 environmental assessment of this mine. And the

11 questions that you have are contracts.

12   And unless it's related to impact

13 assessments, I'd like to continue on and concentrate,

14 because if it's not relevant, then I'd like to move on

15 to the impact assessment of this -- of this hearing.

16 Thank you.

17   MR. KEVIN O'REILLY: Thanks, Mr. Chair.

18 Kevin O'Reilly with Alternatives North.

19   I -- I guess it's our view that the way

20 that the work might be done is relevant, but I do want

21 to move on. And I'm trying to understand what the --

22 the urgency of the

23 -- the roaster complex is then if the Developer is not

24 going to use emergency powers to proceed with the work.

25 Whether it's -- well, maybe I'll ask this the way --

 1 this way. It might be a bit, sort of, looking into the

 2 future.

 3   But if the Developer finds that it's

 4 necessary to exempt parts of the -- the development

 5 while the environmental assessment is going on, will

 6 they commit to applying the binding measures that the

 7 Review Board might come up with retroactively to any

 8 work that's exempted? Thank you.

 9   THE CHAIRPERSON: Thank you. I want to

10 go to the -- the Developer.

11   Just so I'm clear, Mr. O'Reilly, that's

12 your fifth question, right? Thank you.

13   MR. ADRIAN PARADIS: Adrian Paradis, on

14 behalf of the Giant Mine project Team.

15   If, as it is a speculative question, the

16 time comes that we have to do this work, we'll look at

17 -- look at it on a case-by-case basis. It's -- until

18 we get into a hypothetical future scenario, I cannot --

19 I cannot comment on it and say we'll look at it at a --

20 look at it at that time. Thank you.

21   THE CHAIRPERSON: Okay. Thank you.

22 Mr. O'Reilly, that concludes your questioning?

23   MR. KEVIN O'REILLY: Thanks, Mr. Chair.

24 Yes, it does. Thank you.

25   THE CHAIRPERSON: Okay. Thank you.

 1 I'm going to move on to the Board's technical advisors.

 2 Mr. Alan Ehrlich...?

 3   MR. ALAN EHRLICH: Alan Ehrlich for the

 4 Review Board. Mr. Chair, with your permission, I would

 5 like to ask a few staff questions and then the

 6 technical advisor questions and then a few follow-up by

 7 staff, if you're okay with us doing it in that order.

 8   THE CHAIRPERSON: Yeah. Please

 9 proceed.

10   MR. ALAN EHRLICH: Thank you, Mr.

11 Chair. I've got questions about a few different things

12 that fall under the "surface" heading. "Surface"

13 catches a lot, obviously. Baker Creek's included in it

14 as well. You indicated that you may require a

15 geotextile on the tailings between the capillary break

16 and the top layer.

17   How will you decide if it's important to

18 have a geotextile layer?

19   THE CHAIRPERSON: Thank you. I'm going

20 to go to the Developer.

21   MR. JOHN HULL: Mr. Chairman, John

22 Hull. Part of the detailed design would be to define

23 whether or not there is a need for the geotextile. It

24 would be a function of more constructability than for

25 long term-service life of the cover system efficiency.

79

 1   THE CHAIRPERSON: Thank you. I'm going

 2 to go to the Review Board.

 3   MR. ALAN EHRLICH: Thank you, Mr.

 4 Chair. Geotextiles have limited life spans. If you've

 5 decided that it is an important part of your tailings

 6 cover, how will you replace it at the end of its

 7 lifespan?

 8   THE CHAIRPERSON: Thank you, I'll go

 9 back to the Developer.

10   MR. JOHN HULL: Thank you, Mr. Chair.

11 John Hull. As I said, it is only for constructability

12 in -- in the construction phase. It's not anticipated

13 or expected to be required for long-term service

14 performance of the cover.

15   THE CHAIRPERSON: Review Board staff?

16   MR. ALAN EHRLICH: Thanks. I'll move

17 to a different subject. You indicated that you

18 designed Baker Creek to a 1:500 year flood event. In

19 other words, the design criteria for Baker Creek is a

20 1:500 year period, correct?

21   THE CHAIRPERSON: Developer...?

22   MR. JOHN HULL: Thank you, Mr. Chair.

23 John Hull. Baker Creek has been designed to pass the

24 1:500 year storm, plus having 2 metres of anchor ice so

25 that if, in fact, the anchor ice wasn't there, it could

1 pass a storm in the order of a 1:1,000 year storm with

2 some freeboard. We do not anticipate, based on the

3 probability of anchor ice and a large storm to occur at

4 the same time. So it is designed for more than 1:500

5 years.

6   THE CHAIRPERSON: Okay. Thank you,

7 I'll go back to the Review Board staff.

8   MR. ALAN EHRLICH: So what's your

9 current design criteria for Baker Creek channelization?

10   MR. JOHN HULL: The design is 1:500

11 years, with anchor ice.

12   THE CHAIRPERSON: Review Board

13 staff...?

14   MR. ALAN EHRLICH: Now, obviously

15 you're taking into account, as you just indicated,

16 extreme climate events, precipitation.

17   When you say it was designed 1:500 years

18 plus anchor ice, are you saying that based on

19 historical precipitation and -- and climate averages?

20   THE CHAIRPERSON: Thank you, I'll go

21 back to the Developer.

22   Maybe before he speaks here, just for

23 the audience that we have in the back, the Developer in

24 -- in this case is the Aboriginal Affairs and Northern

25 Development Canada and the Government of the Northwest

 1 Territories, so known and AANDC and GNWT. Just so that

 2 when I hear -- when I say "Developer", that's who I'm

 3 making reference to.

 4   I'll go back to the Developer.

 5   MR. NATHAN SCHMIDT: Yeah, Nathan

 6 Schmidt with Golder Associates. To answer your

 7 question, the -- the five hundred (500) year value is

 8 based on the historical flow record from Baker Creek.

 9 We've got in excess of forty (40) years of flow records

10 from that gauging station.

11   THE CHAIRPERSON: Thank you. Before I

12 go back to the Review Board staff, maybe, Alan, can you

13 put your mic closer to your -- thank you.

14   MR. ALAN EHRLICH: Thank you, Mr.

15 Chair. I'm used to most people trying to quiet me

16 down. A similar question: Was tailings design based

17 on similar climate and precipitation information?

18   THE CHAIRPERSON: Thank you, we'll go

19 back to the De --

20   MR. ALAN EHRLICH: That is, the

21 specified tailings cover design?

22   THE CHAIRPERSON: Sorry. Thank you,

23 I'll go back to the Developer.

24   MR. JOHN HULL: Mr. Chair, John Hull.

25 The same climatic data was used for the design for the

1 tailings cover and for these creeks or swales and

2 engineered drainage ditches -- engineered drainage

3 ditches, which would be on the tailings cover.

4   THE CHAIRPERSON: Thank you, I'll go

5 back to the Review Board staff.

6   MR. ALAN EHRLICH: Thank you, Mr.

7 Chair. As the Developer is aware, historical averages

8 are different from current trends. The Developer has

9 relied on the Intergovernmental Panel on Climate Change

10 report number 4 trends when you were modelling your

11 thermosyphon efficiency. From what I've just heard,

12 you did not apply IPCC for findings, conclusions, and

13 predictions in terms of designing Baker Creek and

14 tailings covers.

15   Or -- or did you? Did I misunderstand

16 the previous answer?

17   THE CHAIRPERSON: Thank you, I'll go

18 back to the Developer.

19

20   (BRIEF PAUSE)

21

22   MR. NATHAN SCHMIDT: I think we had

23 addressed, you know, to some extent, some of the -- the

24 climate change issues in -- in hydrology and some of

25 the Information Request responses that we provided.

1   The one I recall specifically had to do

2 with probable maximum flood and the fact that standard

3 practice -- we were unable to find anywhere that

4 recommends that you would increase probable maximum

5 flood to accommodate climate change.

6   That said, of course probable maximum

7 flood is not our design criteria. However, what we did

8 do for Baker Creek specifically was we did a check.

9 Probably maximum flood would be a -- you know, a

10 rainfall-induced event. It happens when the atmosphere

11 is holding the maximum water, and it can dump that all

12 on your watershed at once.

13   And the -- the probable maximum flood

14 value -- which we estimated on the basis of the same

15 techniques that are used by Northwest Territories Power

16 Corporation at the Bluefish Hydro project. We -- we

17 used that same process. Basically in an ice free

18 channel, the entire Baker Creek reach can accommodate

19 it until we get down to the bridge at -- at the

20 highway, okay. At that point we can accommodate

21 slightly less than that probable maximum flood value.

22   So in terms of passing an extreme, you

23 know, rainfall event, we're actually in pretty good

24 shape on this project. It's coincidental, you know,

25 that we've used the five hundred (500) year value plus

 1 a very generous allocation for anchor ice. But when we

 2 do that check on the probable maximum flood, we find

 3 ourselves in a pretty good situation.

 4   THE CHAIRPERSON: Thank you. I'm going

 5 to go to the Review Board staff.

 6   MR. ALAN EHRLICH: The two (2) projects

 7 that you've just described have a different length life

 8 cycles from the one that you're proposing, but I'll try

 9 to have -- figure out how that affects my line of

10 questioning.

11   I'm trying to understand for the -- the

12 portion of your channel design -- that was the 1:500

13 year flood before the addition of the anchor ice part

14 that you describe -- I'm trying to understand the

15 selection of design criteria related to the proposed

16 project life cycle.

17   In all of the previous environmental

18 impact assessments I've deal with, design criteria of

19 critical components is made for them to work for

20 periods longer than the project lasts. For example, at

21 Diavik the dikes are designed to last longer than the

22 proposed mining at Diavik, for obvious reasons. It's

23 below lake level, that kind of thing.

24   I -- I'm no statistician, but I -- I do

25 want to understand how you've designed this Baker Creek

85

1 channel. Now, in previous design, with the exception

2 of the anchor ice part you've described, it was

3 originally designed to a 1:250 year probable maximum

4 flood effect criteria, as I recall, up until about the

5 time of the technical sessions last Oct -- last fall.

6   So when you designed it at that time to

7 a 1:250 year criteria, could it be reasonably expected

8 to fail at least twice as frequently as the one that's

9 proposed now?

10   THE CHAIRPERSON: Thank you. I'm going

11 to go to the Developer to the question.

12

13   (BRIEF PAUSE)

14

15   MR. NATHAN SCHMIDT: Nathan Schmidt.

16 Personally I don't recall the 1:250 criteria, as I've

17 been on the project for a little over two (2) years now

18 and we've used 1:500 consistently and then added the --

19 the anchor ice criteria based on, you know, additional

20 information that we received along the way.

21   You know, in terms of comparing 1:250 to

22 1:500, yeah, you're correct, but we -- we are using the

23 -- what we consider to be a pretty conservative design

24 criteria here.

25   THE CHAIRPERSON: Okay. I'll go back

86

1 to the Review Board staff.

2   MR. ALAN EHRLICH: The next questions

3 from the Review Board staff and experts are coming from

4 -- from some of the Board's experts. So if it's

5 alright with the Chair, I'd like to call them up to the

6 table here.

7

8   (BRIEF PAUSE)

9

10   DR. LUKAS ARENSON: Lukas Arenson,

11 helping the Board here has an expert. I've got a whole

12 line of questions on different elements. Let's --

13 yeah, we'll stick to that, the design criteria Ba --

14 Baker Creek Alan was -- Alan Erlich was just touching

15 on. We have the 1:500 flood, and you said you have the

16 2-metre anchor ice and be conservative.

17   Now, go twenty (20) years back; how much

18 anchor ice would you have used back then?

19   THE CHAIRPERSON: Thank you. I'm going

20 to go to the Developer.

21

22   (BRIEF PAUSE)

23

24   MR. NATHAN SCHMIDT: To -- Nathan

25 Schmidt. To answer your question, twenty (20) years

 1 ago, based on, you know, experience and the people at

 2 the mine, we -- we might have used a lower value. That

 3 said, we have the capability of manage that level of

 4 ice. Okay? It's a -- it's a relatively short reach to

 5 the creek, several kilometres long. There's good access

 6 to it. You can get machinery in there. And the amount

 7 of ice that accumulates in that creek is independent of

 8 the -- the spring freshette flow.

 9   Okay? So when we're looking at joint

10 probabilities of high ice and, say, 1:500 year flood,

11 the joint probability of that is -- is quite a lot less

12 than -- than what you would get just on basis of five

13 hundred (500) year event. Okay? The key message here

14 is that we can manage that.

15   THE CHAIRPERSON: Okay, thank you. I'm

16 going to go to the Review Board staff.

17   DR. LUKAS ARENSON: Lukas Arenson,

18 merely expert, not -- not the staff. Thank you for the

19 answer. But you still mentioned the word

20 "probability". So in other words there's a likelihood

21 of exceedance.

22   Is that correct?

23   THE CHAIRPERSON: Okay, thank you. I'm

24 going to go back to the Developer.

25   MR. NATHAN SCHMIDT: That is correct.

 1 We could end up with more than 2 metres of ice in there

 2 at any given year, and it would be prudent to address

 3 that in advance of freshette, if it occurred. That's

 4 correct.

 5   THE CHAIRPERSON: Thank you. I like

 6 when you guys answer "yes" and "no", like that's

 7 quicker. Thank you. I'm going to go back to the --

 8 our experts.

 9   DR. LUKAS ARENSON: Thank you. Lukas

10 Arenson. So I know Dr. Oboni will probably go more

11 into all the -- the risk assessments to it, but -- so

12 is it fair to say we -- we have the risk.

13   I mean we're not looking at the level,

14 but a diversion could resolve in reducing or putting

15 that risk basically to zero off the flood, exceeding

16 whatever was designed along Baker Creek in the future.

17   THE CHAIRPERSON: Thank you. I'm going

18 to go to the Developer.

19

20   (BRIEF PAUSE)

21

22   MR. NATHAN SCHMIDT: Sorry, I don't

23 have a "yes" or "no" answer for this one. Diverting

24 the flow, of course, away from the mine could reduce

25 that risk. I don't think anybody would suggest it was

 1 zero, would be zero. You could still have a failure,

 2 the diversion structure; anything could happen there.

 3   What I do want to say though is that by

 4 -- while we convey that flow through the mine site, the

 5 -- the risk is greatly diminished after the freeze

 6 takes effect, so on the order of decades. You know,

 7 after that, the consequences of a flow into the

 8 underground are greatly reduced.

 9   The other thing I'd like to say is that,

10 in our design we have included a number of measures to

11 mitigate the -- the potential for that ice formation.

12 Right now, the -- the two (2) areas that are most prone

13 to it are Reach 3 and Reach 1, where we have the

14 channelized areas through bedrock through the mine.

15   And by providing an adequate flood plain

16 we reduce the potential for alfice (phonetic)

17 accumulation, okay. Other features in the mine, you

18 know, some of the pits will be backfilled, we're, you

19 know, planning to have some of the underground features

20 backfilled, you know, to increase the stability there.

21   So there are a number of measures, very

22 important measures, that are planned here that also

23 will reduce the risk of inundation of the mine due to a

24 Baker Creek spill. That was our -- our prime -- my

25 prime objective during all this work was keep the water

 1 out of the underground. Thank you.

 2   THE CHAIRPERSON: Okay, thank you.

 3 I'll go back to the Review Board experts.

 4   DR. LUKAS ARENSON: Thank you. Lukas

 5 Arenson. I -- I understand the -- the concept and --

 6 and all that. I -- I think I'll get that. But as --

 7 as we probably all agree, there's -- there's a risk to

 8 -- to flooding. How high? It's probably low.

 9   But have you then, if we go along with

10 the chain of events, considered moisture migration, if

11 we flooded into your frozen stopes, into your chambers?

12 Because we -- we said they're cold. And whenever we

13 have -- I don't want to go too technical. But when we

14 have a thermal gradient, which you have, we'll have a

15 moisture gradient. So we have moisture migration

16 around.

17   It's small, I agree, but there is as we

18 -- so have you considered the water that might come

19 from a flood suddenly migrating through your frozen

20 stopes or getting into your frozen stopes over a very,

21 very long period of time?

22   THE CHAIRPERSON: Thank you.

23   MR. ADRIAN PARADIS: A moment, sir.

24 We'll just allow Daryl Hockley to come to the mic.

25 Thank you.

 1   THE CHAIRPERSON: Okay, thank you.

 2   DR. LUKAS ARENSON: I just want to

 3 quickly clarify -- sorry, Lu -- Lukas Arenson. Yeah, I

 4 shouldn't have talked about the risk. I should have

 5 talked the likelihood is low. I want to stick to -- to

 6 likelihood, so very, very, very low.

 7   THE CHAIRPERSON: Okay, thank you for

 8 your question. I'll go back to the Developer to the

 9 question.

10   MR. DARYL HOCKLEY: Daryl Hockley,

11 technical advisor to the Developer. Thanks for the

12 clarification. I think we -- we should all be a little

13 careful about probability and risk here.

14   Our -- of course, if a channel is

15 designed to -- to survive a one (1) in 'X' flood, it

16 will -- it will survive that one (1) in 'X' flood with

17 that same probability as -- as long as it's -- as long

18 as it's there.

19   But our contention is that once the --

20 once the -- the heavily arsenic-contaminated areas are

21 sealed behind frozen rock, that the risk to the

22 environment is greatly reduced. We can still have a

23 flood. But our contention is that flood won't have any

24 arsenic to wash out of the mine, or no -- nowhere near

25 as much arsenic to wash out of the mine. Let's put it

 1 that way.

 2   So I think the -- the latest question

 3 is, could there be another mechanism where water would

 4 come into the mine, flood around the frozen block, and

 5 then make its way into the frozen block.

 6   We -- we think that's a bit un -- we

 7 think that's quite unlikely for a number of reasons.

 8 First, as you saw from some of the slides a couple days

 9 ago, there'll be a very wide zone of frozen rock around

10 that arsenic trioxide. So if the water comes up around

11 that -- I hope the person taking the transcripts is

12 making note of all my arm motions here because it's

13 quite important. So you have this broad -- this broad

14 range of frozen -- frozen rock, water coming up around

15 it. Water, if anything, will now attempt to go into

16 that block.

17   And I think we've shown in some of our

18 analyses in the information responses that that water

19 is very likely to freeze before it gets anywhere near

20 that dust. Furthermore, the -- these thought events

21 that we're -- we're talking about would be fairly short

22 term. They -- they wouldn't -- there wouldn't be tens

23 of ye -- tens of years. It'd be probably a few weeks

24 or months of water being there before it was restored

25 on control and -- and taken -- taken back under control

93

1 by the mine water treatment system.

2   So we -- we agree there's a theoretical

3 possibility of that effect, but we think, in practice,

4 it's -- it's quite unlikely.

5   THE CHAIRPERSON: Okay. Thank you.

6 I'm going to go back to the Review Board experts.

7   DR. LUKAS ARENSON: Yeah. Lukas

8 Arenson. I'm showing my hands here. I'm not thinking

9 of the raising from the bob (phonetic), it's more the

10 flood on the surface. You're likely going to have some

11 erosion. I mean, we see, in permafrost area, thermal

12 erosion and mechanical erosion at the surface is very

13 typical.

14   I'm not say -- in my -- it just -- have

15 you considered how deep those goes, and what -- what

16 might be potential effects to your frozen block if you

17 have that flood on top of your frozen shell or frozen

18 block.

19   THE CHAIRPERSON: Thank you. I'm going

20 to go to the Developer to the question.

21

22   (BRIEF PAUSE)

23

24   MR. DARYL HOCKLEY: Yeah. Like, we

25 have an -- a couple of ways. I'm glad I checked with

94

1 my colleagues here, because there was one (1) way that

2 I'd forgotten about. There is one (1) of the IRs where

3 we talk about interactions between the creek and the --

4 and the frozen blocks. But one (1) of the -- the

5 design mandates is to make sure the pad around the

6 frozen blocks is higher than the -- the flood level.

7 So, in -- in other words, there is -- there is no case

8 where a flood would come overtop of a chamber.

9   We -- also, I think, we -- we have to

10 remember dimensions here. The -- I -- I mentioned the

11 other day, the blocks are anywhere between 30 and 100

12 metres below the ground's surface, and you saw that

13 some of those frozen blocks were robust, too. It was

14 twenty (20) years of the absolute worst-case scenario,

15 even if all the thermal siphons are somehow not

16 working.

17   So I -- I don't think we're likely to

18 see erosion of that frozen zone that would in any way

19 approach down to -- down to the dust in -- in a flood

20 event.

21   THE CHAIRPERSON: Okay. Thank you.

22 I'm going to go back to the Review Board experts.

23   DR. LUKAS ARENSON: Can we go to slide

24 37, please? Because that shows the B1 Pit, and my

25 understanding now, from reading the slide, is that the

1 roaster complex and other arsenic trioxide wastes will

2 be placed in frozen block in B1 Pit and underground.

3   And when you look at those dimension,

4 it's -- it's much less than -- oh, yeah. Yes, here.

5 And -- and did I mention we're -- we're -- maximum of

6 20 metres is the depth of -- of B1, and we're going to

7 have a highly -- my understanding is that we have a

8 highly toxic roaster complex material in this pit.

9 It's going to be frozen. It's part of -- needs to be

10 protected, or maybe I didn't understand the concept

11 correctly.

12   THE CHAIRPERSON: Thank you. I'm going

13 to go back to the Developer to the question.

14   MR. JOHN HULL: Mr. Chair, John Hull.

15 The B1 Pit is backfilled to allow the installation of

16 the freeze pipes for B208 and B213 stopes. There is a

17 zone in the middle of the -- or the rings of -- the

18 ring that would be defined by the vertical freeze

19 pipes.

20   In that zone, within the B1 Pit, is

21 where the material from the roaster complex would be

22 placed, so it is inside one (1) of the -- the rings and

23 therefore would be an extension of the zone that was

24 frozen for specifically, as I say, B208.

25   MR. DARYL HOCKLEY: Mr. Chairman, if I

 1 could just help. I think that partic -- just to

 2 clarify, that particular slide is not the -- is not the

 3 B1 Pit. That particular slide -- Rudy, that's --

 4 that's the landfill that would be in the tailings

 5 impoundment. It -- it's just unfortunate that bullet

 6 happens to be above it, but that picture refers to the

 7 earlier part of that slide.

 8   DR. LUKAS ARENSON: Okay.

 9   THE CHAIRPERSON: Okay. Thank you.

10 I'll go back to the Review Board experts.

11   DR. LUKAS ARENSON: Okay. So -- Lukas

12 Arenson. So your minimum cover over any hazardous

13 waste, including the roaster complex, you say, is about

14 50 -- 50 to 60 metres?

15   THE CHAIRPERSON: Okay. Thank you.

16 I'll go to the Developer.

17

18   (BRIEF PAUSE)

19

20   MR. DARYL HOCKLEY: No, not -- not that

21 much. It's -- Daryl Hockley, thank you. No, it's not

22 that much. It would be more on the order of 20 metres

23 to -- yeah. It -- again, I should point out that the

24 portion of the one (1) that -- that John is describing

25 is -- is not directly in the current flow path of Baker

 1 Creek.

 2   So Baker Creek would have to spill over

 3 its banks and go in the wrong direction. It could --

 4 Nathan, I think it could backwater into that area in an

 5 extreme event -- no, it's higher? Okay. It couldn't

 6 even backwater there, so there's no question -- it

 7 could not bring any erosive power in that direction.

 8 That's -- that's for sure.

 9   THE CHAIRPERSON: Okay. Thank you.

10 I'll go back to the Review Board experts.

11   MR. LUKAS ARENSON: Okay. Lukas

12 Arenson. I have no further question on -- on Baker

13 Creek right now and I think I will give it to Dr. Oboni

14 who has some risk question along Baker Creek.

15   DR. FRANCO OBONI: Thank you, Mr.

16 Chair. Thank you, Lukas. Actually, my first question

17 is really a simple one or would require a reply in a

18 very simple term.

19   Could you please describe in detail the

20 scenario in the aftermath of during a flood that would

21 destroy or fail the banks of Baker Creek. And please

22 think of it broadly.

23   I showed you yesterday what happened at

24 Baralaba. Think about an extreme meteorological event,

25 its consequences on distribution, telecom, electricity,

98

1 supply, and -- and lets try to build something that

2 will put at peace the idea that the consequences would

3 be small.

4   Because I -- my feeling is that by

5 concentrating on the effects of the flood and an

6 overflow of the creek on the frozen block we are

7 blinding ourselves from the real amplitude of the

8 consequences of such an event.   Thank you.

9   THE CHAIRPERSON: Thank you for your

10 question. I'm going to go to the Developer to the

11 question.

12

13   (BRIEF PAUSE)

14

15   MR. DARYL HOCKLEY: Mr. Chairman, Daryl

16 Hockley. We -- we believe we've put on the record

17 already the -- a -- a fairly complete answer to -- to

18 that -- that question.

19   There is an information -- there was an

20 Information Request about the worst-case scenario if

21 the -- if Baker Creek was to jump out of its banks in

22 the current condition and -- and to -- to flood the --

23 the mine as it -- as it currently sits.

24   That's -- if my recollection is --

25 that's a two (2) to three (3) page reply. I'm -- I'm

 1 reluctant to -- to try to repeat it all here. Yes,

 2 it's Information Request Alternatives North IR-17. Was

 3 that Round 1 or Round 2? Round 2. So there's a -- a

 4 few pages about that in here.

 5   In short, to the -- the concern is that

 6 when the -- as long as the mine is unremediated Baker

 7 Creek would jump out of its banks, flood the

 8 underground, reach the arsenic trioxide, dissolve a

 9 significant amount of that arsenic, and then carry that

10 arsenic out into Baker Creek and Yellowknife Bay.

11   That's -- that's one (1) of the primary

12 risks we're -- we're trying to deal with at this -- and

13 also, I'd like -- like to point out Dr. Oboni presented

14 some -- some slides about the case history in -- in

15 Italy and that's --

16   MR. JOHN HULL: Australia.

17   MR. DARYL HOCKLEY: Pardon me,

18 Australia, that's -- that is how the -- how the mining

19 industry works. We -- there's never a perfect parallel

20 for every system. We -- we have to deal with slightly

21 different parallels.

22   I guess we'd like to point out that the

23 -- the flow in -- in that case was significantly more

24 powerful than the typical flow in -- in Baker Creek and

25 the -- the pit was smaller, so the -- it's nice to have

 1 a video. There's far -- there's far too few videos of

 2 failures to really show people what it could be like.

 3 But we also have to remember that circumstances are

 4 going to be different here in a -- in a number --

 5 number of ways.

 6   THE CHAIRPERSON: Okay. Thank you. I

 7 want to go back to the Review Board experts.

 8   DR. LUKAS ARENSON: Okay, Lukas Arenson

 9 here again, with the Board. I've got a very short

10 question about the tailings cover and tailings design.

11 What is your frost depth you expect for the tailings?

12   Do you have any idea?

13   THE CHAIRPERSON: Thank you. I'll go

14 to the Developer.

15   MR. JOHN HULL: Mr. Chair, John Hull.

16 We don't have specific thermistors that identify the

17 actual frost depth. We would anticipate based on other

18 projects and data from the region, the -- the frost

19 depth would be about a metre, metre and a half.

20   THE CHAIRPERSON: Okay. Thank you.

21 I'll go back to the Review Board experts.

22   DR. LUKAS ARENSON: So your metre and a

23 half, that means with the 1 metre cover it would be

24 below the cover, is that correct?

25   THE CHAIRPERSON: The Developer...?

 1   MR. JOHN HULL: Mr. Chair, John Hull.

 2 Yes.

 3   THE CHAIRPERSON: Okay.

 4   DR. LUKAS ARENSON: I'm getting a quick

 5 answer. Aren -- Lukas Arenson again. Have you

 6 considered any moisture migration as you -- during

 7 frost because -- iceland formation and moisture

 8 migration from the tailings into your cover in the long

 9 term?

10   THE CHAIRPERSON: Thank you. The

11 Developer...?

12   MR. JOHN HULL: Mr. Chair, John Hull.

13 It has been considered in the preliminary design and

14 would be evaluated to a -- at a -- to a further extent

15 and using the information we obtain from the test pads

16 to evaluate that and put that into the final design.

17   THE CHAIRPERSON: Thank you.

18   DR. LUKAS ARENSON: Okay, so -- yeah,

19 Lukas Arenson. So your test pads, I guess they're --

20 so you're committing to do more and more extensive

21 tailings cover test plots to -- for -- for your final

22 design, is that correct?

23   THE CHAIRPERSON: Thank you. The

24 Developer...?

25   MR. JOHN HULL: Mr. Chair, John Hull.

1 The anticipation is that there will be additional test

2 pads that would be refinements of test pads that have

3 been built to answer specific questions such as the one

4 (1) you've asked. And that would be part of going

5 forward in the detailed design phase.

6   THE CHAIRPERSON: Thank you. Review

7 Board experts...?

8   DR. LUKAS ARENSON: No, that -- that's

9 fine. I would just -- for the record, we -- we noted

10 that the thickness of the cover decreased from the

11 original DAR project, and now the -- or in the

12 recommendation after the first test and -- but if we

13 continue with test plots and assess the situation I

14 think that's a good path forward. Thank you. No

15 further questions --

16   THE CHAIRPERSON: Okay.

17   DR. LUKAS ARENSON: -- from me.

18   THE CHAIRPERSON: Thank you. I'm going

19 to go to my -- sorry.

20

21   (BRIEF PAUSE)

22

23   DR. FRANCO OBONI: Franco Oboni. Just

24 thank you, Mr. Chair. So we have understood that you

25 have considered probabilities that are lower than one

1 (1) in five hundred (500) for -- as a criteria for

2 Baker Creek, although we don't have a value. It's --

3 it's done by guestimate, let's say.

4   If I go back a second to the 1:500

5 years, over a twenty-five (25) year period you would

6 have 5 percent probability of seeing that phenomenon.

7 Now, if you go to 1:1,000, which is, if I have

8 understood well what you have selected, you will have

9 2.5 percent in twenty-five (25) years, respectively 10

10 percent in a hundred years.

11   Do you feel comfortable that -- with

12 that level of probability and the possible consequences

13 of that phenomenon? That's acceptable?

14   THE CHAIRPERSON: Thank you for your

15 question. I'm going to the Developer.

16

17   (BRIEF PAUSE)

18

19   MR. NATHAN SCHMIDT: Nathan Schmidt,

20 Mr. Chairman. The -- the 1:1,000 year value that was

21 thrown out there this morning I think is not the right

22 number. It's -- it's greater than 1:1,000.

23   As I said for the ice freeze situation,

24 with that remediation channel we're in -- in pretty

25 good shape of -- of passing the probable maximum flood

1 except in the bridge area where it's slightly less.

2 And the PMF value, probable maximum flood, the estimate

3 is based on twice the 1:10,000 year value, okay. Of

4 course, that doesn't include any freeboard, but, you

5 know, it's -- it's much greater than the 1:1,000 year.

6   THE CHAIRPERSON: That said, you know, that's why we want

7 to get going on this project and to do this

8 remediation, because we've looked at the existing

9 situation. Alan, I think that may be where that 1:250

10 number came from. It may have come out at one of the

11 technical sessions because, of course, the existing

12 situation at the site isn't that good, and we want to

13 fix that. So thank you.

14   THE CHAIRPERSON: Thank you. Review

15 Board experts...?

16   DR. FRANCO OBONI: I'm a little bit

17 lost because numbers keep dancing around us. Is it

18 five hundred (500)? Is it a thousand? Now you're

19 saying it's more than 1:1,000.

20   Don't we need to have some firmer ground

21 to make decisions and progress on this project?

22   THE CHAIRPERSON: Thank you. I'm going

23 to go back to the Developer.

24   MR. NATHAN SCHMIDT: Nathan Schmidt,

25 Mr. Chairman. To be clear, our criteria is as

1 presented this morning, 1:500 year flow, 2 metres of

2 anchor ice, to which there's no return period

3 associated. But, as I said, we have control. And we

4 also intend to mitigate, to some extent, by providing

5 that flood plain area and the unre -- constricted

6 areas, okay.

7   So, you know, the -- the criteria are as

8 presented. What we know though is that the -- the

9 actual probability is -- is quite a bit less than that.

10 Thank you.

11   THE CHAIRPERSON: Thank you. Review

12 Board experts...?

13   DR. FRANCO OBONI: So, basically,

14 you're asking the Review Board to make a decision on a

15 criteria that accept a 5 percent probability in twenty-

16 five (25) years and 20 percent probability in a hundred

17 years, if I take your words as they came?

18   THE CHAIRPERSON: Thank you. To the

19 Developer to the question. The answer will be "yes" or

20 "no".

21   MR. DARYL HOCKLEY: Sorry, I can't help

22 you with a "yes" or "no" on that one. It's not -- it's

23 not quite so easy. The -- the problem is that we -- we

24 can't divorce the Baker Creek part of the project from

25 the -- the rest of the project.

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1   The project as a whole seeks to

2 stabilize the site by doing two (2) things. One (1) is

3 -- well, many things, but two (2) things we're talking

4 about here. One (1) is creating the frozen blocks, and

5 the other is creating this channel. They go hand in

6 hand.

7   I think the question has confused that a

8 little bit. We -- we agree the current situation is a

9 big problem. There is a risk of the flood now, and

10 that flood would have serious consequences. We agree

11 that's a big problem. But that's what we're trying to

12 fix.

13   At the end of the day, over the long

14 term, we'll have frozen blocks, and we'll have a creek

15 -- a creek channel in -- in the way that Nathan has

16 described. When we have the frozen blocks, we believe

17 the 1:500 criteria, the very conservative 1:500

18 criteria, is quite appropriate.

19   Once we have all that arsenic sealed up,

20 the failure of this creek, the flooding of this creek

21 won't be all that much different from the flooding of

22 any other creek, natural creek in the -- in the

23 surroundings.

24   THE CHAIRPERSON: Okay, thank you. We

25 don't want to talk about divorce right now. So I'm

1 going to go back to the Review Board experts.

2   DR. FRANCO OBONI: I -- I will conclude

3 with a remark, which is not really a question. But if

4 I was to build one of these beams and this was a

5 temporary structure, temporary structure, I'm making a

6 parallel with the state of the project until the frozen

7 block is effected, and there was an accident and I was

8 in court as an engineer in front of a judge, and I was

9 to tell him that I accepted the 5 percent probability

10 of failure. I think I would go to jail.

11   How do you feel about that?

12   THE CHAIRPERSON: Thank you. I'll go

13 back to the Developer.

14   MR. DARYL HOCKLEY: I'd be happy to

15 testify on your behalf if there was a reasonable basis

16 for your selection of that risk. Tha -- that's the

17 important thing. Of course, we could, in theory, build

18 everything for the maximum possible event. That's not

19 a good use of -- of the world's resources. We would --

20 we would have every natural creek channel in the world

21 excavated 200 metres wide so it didn't fail in the

22 flood. Nobody wants to do that.

23   Our job as engineers is to weigh the

24 risk and balance that against the design criteria. And

25 in the field of mine closure, this is exactly how it's

1 done. We look at the consequence of a failure, and

2 when the consequence of a failure is -- is very

3 significant, we recommend urgent action. When the

4 consequences of a failure is much, much, much reduced,

5 we are quite happy to deal with a criteria such as --

6 such as the one here.

7   THE CHAIRPERSON: Okay. Thank you.

8 I'm going to go back to the Review Board experts.

9   DR. FRANCO OBONI: I'm fully aware that

10 risk management is a discipline which, by the way, I

11 practice every day, of selecting proper alternatives

12 and weighing probabilities and consequences. That's

13 the game of -- of risk.

14   In this particular case, looking at the

15 risk matrix that has been used, how values have been

16 selected, and so forth, I anticipate for tomorrow a

17 tough discussion on how well this risk assessment, and

18 the risk assessments that have been done to date,

19 capture the reality and the balance of things.

20   So I will refrain from going into a

21 back-and-forth tennis match right now, but I think that

22 tomorrow we will have one. Thank you very much.

23   THE CHAIRPERSON: Okay. Thank you.

24 It's five (5) to 12:00. Mr. Donihee...?

25   MR. JOHN DONIHEE: John Donihee. Thank

 1 you, Mr. Chairman. Ms. Enns has some questions. I

 2 have just two (2) quick clean-up questions that -- and

 3 then you'll be done with counsel, sir.

 4   The first one is in Mr. Hull's

 5 presentation this morning, in respect of comments he

 6 made in relation to slides 15 and 16, they related to

 7 Reach -- the Reach 3 design. You'd -- that's -- yeah,

 8 that's some of them. What he -- what I -- what he said

 9 was that the design was about to be completed and that

10 once it was completed it would go to Public Works. And

11 then once Public Works was satisfied with the final

12 design it would be reviewed by DFO and Environment

13 Canada and then tendered before the end of the year.

14   And I'm just wondering about that --

15 that sequence. Is it the Developer's position that

16 they're going to be tendering for the actual

17 construction of these areas in Baker Creek before the

18 Review Board and Water Board are actually finished

19 their -- their processes?

20   THE CHAIRPERSON: Thank you, Mr.

21 Donihee. I'm going to go to the Developer to the

22 question.

23   MR. ADRIAN PARADIS: Adrian Paradis, on

24 behalf of the project. No, that is not the intention.

25 I'll ask Mr. Hull to clarify the comments, but that is

1 not the intention of the project team at this time.

2 Not at this time, that's just simply not the case,

3 period.

4   MR. JOHN HULL: Mr. Chair, may I have

5 clarification? I believe you were referring to the

6 sediment study for Baker Creek. The intent is that the

7 draft is now being finalized. That would go to DFO at

8 -- sorry, it would go to Public Works and AANDC for

9 final review. It would then be reviewed with DFO,

10 Environment Canada. At that time, when they've

11 finished their review, it would be finalized. And then

12 the report, which is a facts report, has no

13 recommendations in it, would then be delivered for

14 review or input from stakeholders. It -- it's the desi

15 -- that is a study report, not any construction or

16 contracting.

17   MR. ADRIAN PARADIS: Mr. Chair, the --

18 I think that clarifies the position. Thank you very

19 much.

20   THE CHAIRPERSON: Okay. Thank you.

21 Mr. Donihee...?

22   MR. JOHN DONIHEE: John Donihee. Thank

23 you, Mr. Chairman. Thank you for the clarification.

24   Second quick question was just -- you

25 said that, where you had contaminated soils or surface

1 materials, that -- on site that they'd be excavated

2 down to a depth of 2 metres and there would be

3 replacement soils or cover put on.

4   I just wondered if you could tell us

5 where the -- what -- where the source of the -- the

6 clean soil is that you're going to cover up these areas

7 where the excavation came from? Is that from the site

8 itself or is it from someplace off site?

9   THE CHAIRPERSON: Thank you, Mr.

10 Donihee. Developer...?

11   MR. RUDY SCHMIDTKE: Rudy Schmidtke.

12 The intent would be to keep whatever materials we could

13 utilize on site. I believe John had a brief slide on

14 borrow sources on the Giant Mine site. So, yes, the

15 plan right now is to -- is to obtain clear materials,

16 produce on site, and place as cover. Thank you.

17   THE CHAIRPERSON: Thank you. Mr.

18 Donihee...?

19   MR. JOHN DONIHEE: Thank you, sir.

20 John Donihee. My last question is a follow-up on

21 something Mr. O'Reilly asked about. Section 119 of the

22 Mackenzie Valley Resource Management Act allows for

23 emergency actions which are not subject to Part 5 of

24 the Act to take place. And se -- several of them have

25 already been identified, one of which involves the

1 demolition of the roaster, as I understand it.

2 And, you know, I -- I guess the question

3 I have really is, given the length of time that you've

4 had to study the circumstances and -- and contamination

5 levels in -- at the site, you know, can -- and -- and I

6 realize that no one can -- can predict the future

7 completely. I am asking you about emergencies and if

8 you could predict them of course they wouldn't be

9 emergencies.

10 But given what you know about the site

11 right now, you know, are there any other facilities or

12 locations where the Developer would anticipate having a

13 requirement to have recourse to Section 119 of the

14 MVRMA, and to move ahead before the environmental

15 assessment process is completed?

16 So those are -- I'm asking about

17 additional sites where you might have to move in an

18 emergent way and do something that would essentially

19 take an element that's currently being considered in

20 the impact assessment out of it, so that you can solve

21 an emergency problem.

22 Are there any more of those situations

23 out there that you can advise the Board about?

24 THE CHAIRPERSON: Thank you, Mr.

25 Donihee, to your question. To the Developer, to the

1 question.

2   MR. ADRIAN PARADIS: Adrian Paradis on

3 behalf of the project team. I want to pref -- preface

4 this -- my -- my statement here. To our knowledge our

5 -- the fundamental reason why we're on the site right

6 now is for protection of human health and -- and

7 environmental safety. That -- that is why we're there.

8 And if you go back to the original scoping sessions,

9 that was the key message that was delivered by Bill

10 Mitchell (phonetic) at that time.

11   If an emergency is -- arises, the pro --

12 the governments will act to alleviate that concern.

13 This has happened with the Baker Creek removal of 2007,

14 and as also the potential dam failure on B2 Dam in

15 2007/'08.

16   To our knowledge right now, the two (2)

17 large risks on site that our engineers have addressed

18 have -- have identified to us is the roaster and the

19 underground. Those are our two (2) known large risks

20 at the si -- at this time.

21   That said, it was briefly mentioned by,

22 I believe, one of the gentlemen this morning that we

23 had a -- a minor opening cave-in of some material on

24 surface this sum -- this summer. It was up towards the

25 northwest tailings pond, and old timbers failed, and

1 some subsidence occurred.

2   The site is deteriorating and it

3 continues to deteriorate. And until we can implement

4 the remediation plan fully, it will not be -- it will

5 not be safe. It will be -- we will -- care -- we're

6 doing care and maintenance to maintain it, but things

7 happen, we will act.

8   But I think, first, your question has

9 been, Do we know of anything else? No, not at this

10 time. It is the roaster and the underground. Thank

11 you.

12   THE CHAIRPERSON: Thank you. Mr.

13 Donihee...?

14   MR. JOHN DONIHEE: Thank you, Mr.

15 Chairman. Those are my questions. I'll turn the mic

16 over to Ms. Enns.

17   THE CHAIRPERSON: Okay, thank you.

18 We'll -- we'll take a lunch break. We'll take a half-

19 hour lunch break. We'll be back at 12:30. And we'll

20 continue on the questionings and then we'll go into the

21 presentations after that. Thank you.

22

23 --- Upon recessing at 12:01 p.m.

24 --- Upon resuming at 12:52 p.m.

25

1   THE CHAIRPERSON: Can I get everybody

2 back to the table? We can start.

3

4   (BRIEF PAUSE)

5

6   THE CHAIRPERSON: Thank you. It's now

7 eight (8) minutes to 1:00. We'll continue on the

8 public hearing. I know that we said we wanted to start

9 -- start at 12:30, but I'm -- well, we'll just have to

10 continue on. Before we broke for lunch, we were still

11 going through questions we have.

12   We're going on to continue with the

13 questioning from the Review Board experts, and we'll

14 con -- so I'll turn it over to them. Thank you.

15   MS. KATHERINE ENNS: Thank you, Mr.

16 Chair. Katherine Enns. I see the room has thinned a

17 lot. And that's unfortunate, but that's -- that's

18 okay. I can deal with that, because I have the really

19 important group in front of me, which are the

20 engineers.

21   I'm a biologist and I've been practising

22 biology -- or, I guess you could call it biology -- for

23 thirty-five (35) -- almost thirty-five (35) years, and

24 a lot of it around smelter sites and contaminated sites

25 and in British Columbia and in the Yukon and in the

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 1 Northwest Territories and in Alberta.

 2   And I -- I want to just briefly discuss

 3 a little bit about the toxicity issues, and then I have

 4 some questions. And -- and I've got some questions

 5 regarding the air quality, the human use, and the

 6 sediment characteristics.

 7   So I just want to remind everyone that

 8 although this may seem like it's a really interesting

 9 engineering project which requires extremely careful

10 and precise engineering approaches, very unique and

11 creative engineering principles, it is actually really

12 about toxicology. It's really about not just arsenic

13 toxicology, but the toxicology of all of the other

14 substances.

15   So what I want to know -- and I -- I

16 appreciate the fact you mentioned earlier that you

17 don't have your sediment investigation ready to

18 present, that it has to go for review. But surely

19 after all these of working on this project, I would

20 like to know what you know about long-term loading of

21 sediments from Baker Creek to Yellowknife Bay and,

22 therefore, to Great Slave Lake.

23   What is really actually known about the

24 distribution of arsenic and all the other substances

25 emitted from this roaster site to soils, vegetation, a

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1 non-soil surficial material, the redeposition of it,

2 what the concentrations are, how they load into the

3 creek, what the subsequent toxicology of those

4 substance are projected over the long term?

5   So can you a -- can you tell me, please:

6 What do you know about the concentrations of arsenic in

7 soils feeding into Baker Creek?

8   THE CHAIRPERSON: Okay, thank you. I'm

9 going to go to the Developer.

10

11   (BRIEF PAUSE)

12

13   MR. BRUCE HALBERT: Bruce Halbert, Mr.

14 Chair. There are several aspects. I'll try to really

15 focus this answer down to the one you asked about, the

16 contribution of soils to the arsenic loadings to Baker

17 Creek.

18   There was a -- a lot of work done on

19 this going back in the 2004, I believe, 2005 period.

20 It's covered within the -- one of the supporting

21 documents to the DAR in which load estimates were

22 derived from measurements of runoff from various

23 diffused sources across the site. And we spoke a

24 little bit yesterday about some of those loads going in

25 to Baker Creek. As I had mentioned, there's an

 1 estimated 220 kilograms a year of loading coming off

 2 the site, per se, to Baker Creek; another two hundred

 3 and ninety (290) or so coming into Baker Creek from

 4 upstream; and from drainage to -- to the west of the

 5 site.

 6   THE CHAIRPERSON: Thank you. I'll go

 7 back to the Review Board experts.

 8   MS. KATHERINE ENNS: Kat Enns again.

 9 What do you know about the loadings from vegetation and

10 dust, air deposition, and their loadings and their

11 toxicological impacts to Baker Creek?

12   THE CHAIRPERSON: Thank you. I'll go

13 back to the Developer.

14   MR. BRUCE HALBERT: Thank you, Mr.

15 Chair. Bruce Halbert.

16   The 2006 risk assessment report, which

17 is Supporting Document N1 to the DAR, Appendix B,

18 summarizes all the information that had been gathered

19 from various investigations by researchers, you know,

20 the site operators themselves over the years on

21 concentrations within vegetation species such as

22 berries, wildlife species that have been caught such as

23 birds, et cetera, from the Giant Mine site as well as

24 from around the local study area.

25   That information was all used as part of

 1 the tox -- or the toxicity assessment for exposure to

 2 ecological species either on the site or off site and

 3 for people who could consume those products.

 4   MS. KATHERINE ENNS: Kat Enns again.

 5 Given that those concentrations are used in models and

 6 not actually compared to actual effects in the field,

 7 would you think it is fair to say that there's a

 8 certain degree of uncertainty regarding the fate and

 9 impacts of the various different contaminants on

10 receptors in the general area around the mine site?

11   THE CHAIRPERSON: Thank you. I'll go

12 to the Developer.

13   MR. BRUCE HALBERT: Thank you, Mr.

14 Chair. Bruce Halbert. Yes, in any assessment, as you

15 know, there's always uncertainty. We've tried to

16 capture that within our overall assessments by doing

17 what we term "probablistic assessments". But

18 fundamentally, it's recognizing that there is a range

19 of values, and we assess over that range of values.

20   MS. KATHERINE ENNS: Kat Enns again.

21 Now, I've heard it mentioned here that you -- you can't

22 divorce Baker Creek from the project. I'd like to know

23 if the creek is necessary for the disposal of

24 contaminants at the present time.

25   Is it -- is it considered -- is it -- is

 1 it receiving loadings from the -- the -- the project

 2 area?

 3   THE CHAIRPERSON: Thank you. I'll go

 4 the Developer.

 5   MR. ADRIAN PARADIS: Momentarily, Sir.

 6 It's Adrian Paradis.

 7

 8   (BRIEF PAUSE)

 9

10   MR. BRUCE HALBERT: Bruce Halbert, Mr.

11 Chair. I think I'd start out by making the point that

12 recent biological investigations on Baker Creek have

13 shown that it is a useful habitat. We do have, as I

14 mentioned previously yesterday, several species, fish

15 species, using in this system. Benthic organisms are

16 recovering -- recovering in that system. And while

17 there is a contaminant load certainly being transported

18 down through Baker Creek, it's not a habitat to be

19 ignored.

20   THE CHAIRPERSON: Thank you.

21   MS. KATHERINE ENNS: With -- Katherine

22 Enns. With respect, do you believe that to be a

23 critical habitat?

24   THE CHAIRPERSON: Okay, thank you.

25 I'll go back to the Developer.

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1   MR. BRUCE HALBERT: Bruce Halbert, Mr.

2 Chair. I would say, yes, it is.

3   MS. KATHERINE ENNS: Katherine Enns,

4 again. So you believe that Baker Creek is an actual

5 critical habitat to fish in the Yellowknife Bay?

6   THE CHAIRPERSON: Thank you, I'll go to

7 the Developer.

8   MR. BRUCE HALBERT: Bruce Halbert. It

9 certainly is one of the contributing streams and serves

10 as a spawning area for several spe -- fish species,

11 including Arctic grayling. So I would say it is

12 certainly important for the system as a whole.

13   MS. KATHERINE ENNS: Katherine Enns,

14 again. If -- I want to just ask one (1) more question,

15 and then I'm going to hand it over to -- to Dave Tyson,

16 who is a fisheries biologist. I've asked this question

17 before; I'm going to ask it again.

18   If you could design your best-engineered

19 project, with the least potential risk to the success

20 of the project from an engineering perspective, would

21 you divert Baker Creek away from its current flows and

22 manage the creek as a dry creek?

23   THE CHAIRPERSON: Thank you, I'll go

24 back to the Developer to the question.

25   MR. ADRIAN PARADIS: Momentarily, sir.

 1   MR. DARYL HOCKLEY: Mr. Chairman, as

 2 someone who, together with Bruce, has been on this

 3 project for twelve (12) years, I can assure you we are

 4 presenting the best project that -- that we can design

 5 for the circumstances out there today. And it

 6 certainly does include restoration of Baker Creek,

 7 rather than destruction of Baker Creek or conversion to

 8 some other purpose.

 9   MS. KATHERINE ENNS: Katherine Enns,

10 again. Okay, thank you very much for that -- for that

11 statement. And I understand that you may want to

12 fulfill an obligation to someone in the restoration of

13 this creek. Later on, I'm going to talk a little bit

14 about impacts and other management scenarios for creeks

15 that have contaminants in them to this degree. But I

16 guess I'm -- I'm not -- maybe I'm not getting it across

17 here.

18   I'm asking you to say, yes or no, if you

19 would consider the diversion of the creek if you

20 thought that that would be an improvement to the

21 success of your project, aside from all of the

22 biological ramifications that you have been presented

23 with.

24   THE CHAIRPERSON: Okay, thank you.

25 I'll go to the Developer to the question.

 1   (BRIEF PAUSE)

 2

 3   MR. DARYL HOCKLEY: No, the -- our --

 4 Daryl Hockley. No, our -- our design for this project

 5 would not include a -- a removal of Baker Creek. It

 6 does not include a removal of Baker Creek. It's not in

 7 the scope of the project that we've proposed, for --

 8 for a good reason. We -- we believe we can make -- we

 9 believe Baker Creek is a productive habitat and can be

10 made a better habitat. We believe it can be made

11 something of value to the community, and -- and we

12 think that's an essential part of -- of mine closure.

13   THE CHAIRPERSON: Can you state your

14 name again? Thank you.

15   MR. DARYL HOCKLEY: Sorry, Mr.

16 Chairman. That was Daryl Hockley.

17   THE CHAIRPERSON: Thank you. Thank

18 you, I'll go back to the Review Board technical team.

19   MS. KATHERINE ENNS: Thank you, I have

20 no further questions.

21

22   (BRIEF PAUSE)

23

24   MR. DAVE TYSON: Dave Tyson. I've --

25 we've talked about, yesterday, about moving the treated

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1 water discharge from Baker Creek out to a diffuser in

2 Yellowknife Bay.

3   And there were clearly stated water

4 quality objectives, particularly the mixing zone and

5 meeting CCME guidelines for the protection of aquatic

6 life. I didn't see the same objectives for Baker

7 Creek.

8   What I was able to get out of the DAR

9 was that arsenic concentrations in Baker Creek were

10 predicted to be over twenty (20) times the CCME

11 guidelines for the protection of aquatic life.

12   If Baker Creek is critical habitat, how

13 is this an adequate objective for protecting aquatic

14 life?

15   THE CHAIRPERSON: Thank you. I'll go

16 back to the Developer.

17   MR. BRUCE HALBERT: Bruce Halbert, Mr.

18 Chair. Yes, you're quite right. We expect that the

19 arsenic level in Baker Creek will be in the -- in the

20 range of -- of 100 micrograms per litre, at least for

21 some period of time.

22   As I mentioned previously, the inflow to

23 the -- coming into the site from upstream is running 20

24 to 60 micrograms per litre. That's certainly above the

25 cert -- CCME guideline of five (5). But don't forget

 1 that guideline is designed to be protective of all

 2 aquatic species and has a factor of safety built --

 3 built into it.

 4   So we can get into a debate about what's

 5 an acceptable cri -- criteria. But from a toxicity

 6 point of view, the level of arsenic in that system is

 7 below toxicity effects for most species.

 8   THE CHAIRPERSON: Okay. Thank you.

 9 I'll go back to the Review Board.

10   MR. DAVE TYSON: Dave Tyson. There --

11 you're correct, there's a -- a -- it's usually about a

12 factor of ten (10). What we're talking here is a

13 factor of twenty (20). And the most sensitive species

14 are the primary producers. Once you affect the primary

15 producers, you then affect the secondary producers,

16 which are essentially the fish food. So if there are

17 effects happening, you reduce the potential

18 productivity in that stream and the ability to support

19 fish.

20   So is it appropriate to construct what -

21 - fish habitat that's attractive to fish into what is

22 essentially degraded water quality?

23   THE CHAIRPERSON: Thank you. I'll go

24 back to the Developer to the question.

25   MR. BRUCE HALBERT: Bruce Halbert, Mr.

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1 Chair. I think we should look at the field evidence,

2 and that is showing that the -- the system is

3 recovering. As I mentioned, we have several fish

4 species in that system now.

5   Reach 4 was remediated in 2006. It has

6 been a, if you will, a test system for what we can

7 expect to see in the future from -- from remediating

8 other parts of that system. It is showing good

9 results. And the fact that the arsenic level is -- is

10 going to decrease in the future as compared to what it

11 is today is encouraging for looking at recovery of that

12 system.

13   THE CHAIRPERSON: Okay. Thank you.

14 I'll go back to the Review Board experts.

15   MR. DAVE TYSON: Dave Tyson. The --

16 the projections that we saw were to the year 2100. And

17 the arsenic concentrations were still projected to be

18 more than twenty (20) times CCME guidelines.

19   And what I'm hearing from you regarding

20 your observations in the creek -- in the creek, that

21 the CCME guidelines, for some reason, are not

22 applicable to this project?

23   THE CHAIRPERSON: Thank you. I'll go

24 back to the Developer.

25   MR. BRUCE HALBERT: Bruce Halbert, Mr.

 1 Chair. I think the answer simply is that we're not

 2 applying specific guidelines to Baker Creek. We're

 3 looking at doing the best we can, as far as remediating

 4 the site, to improve conditions. And I don't think

 5 it's appropriate in this particular instance to look at

 6 application of the CCME guidelines.

 7   THE CHAIRPERSON: Thank you. We'll go

 8 back to Review Board experts.

 9

10   (BRIEF PAUSE)

11

12   MS. KATHERINE ENNS: Katherine Enns,

13 Chair. Okay, we will come back to this topic, as you

14 can probably imagine, when we hear the plans for

15 creation of acceptable habitat for fish by DFO later.

16   And I'll be talking a little bit then

17 about the concept of what's called, in the literature,

18 "attractive nuisance", but is actually really just a

19 way of saying that you don't want to create habitat

20 that will essentially harm species. It's not just

21 about fish. It's about all of the other animals and

22 creatures of the field and stream, including the

23 lichens and the berries and the -- the invertebrates,

24 which are almost absent from that environment, from

25 what I can tell.

 1   So, I mean, in most parts of the world,

 2 around smelter sites, when you have those kinds of

 3 concentrations and that kind of gradient, most people

 4 do not deliberately try to enhance habitat in order to

 5 draw animals into it. That is just a typical

 6 industrial way of doing things around smelter sites in

 7 -- in the world. That's been my experience.

 8   And I'm going to go on from here and ask

 9 you another question regarding air quality. You have

10 only one (1) air quality monitoring site. Is that

11 correct?

12   THE CHAIRPERSON: Thank you. I'll go

13 to the Developer.

14   MR. BRUCE HALBERT: Bruce Halbert, Mr.

15 Chair. I think the site you're referring to is the one

16 operated by the GNWT and the City of Yellowknife, and

17 this is one (1) site, yes. We have several monitoring

18 stations on -- on the Giant Mine site to augment that

19 particular program.

20   THE CHAIRPERSON: Thank you. I'll go

21 back to the Review Board experts.

22   MS. KATHERINE ENNS: Katherine Enns.

23 You used the CALPUFF model to predict your

24 concentrations and durations of exposure to various

25 different substances during the remediation.

 1   Are you planning on using any passive

 2 monitoring to verify and calibrate the model output and

 3 to check for any concentrations that may be exceeding

 4 existing guidelines?

 5   THE CHAIRPERSON: Thank you. I'll go

 6 to the Developer.

 7   MR. BRUCE HALBERT: Thank you, Mr.

 8 Chair. Bruce Halbert. As I indicated at the end of

 9 the air -- air quality presentation, there is a

10 proposed monitoring program spe -- specific to the

11 Giant Mine project that will monitor air quality around

12 the perimeter of the -- of the site.

13   In addition, our expectation is that

14 we'll have specific monitoring activities developed in

15 relation to each of the remediation components, whether

16 that's the tailing areas, the demolition of the

17 roaster, whatever. There will be specific in close, if

18 you will, near-field monitoring activities undertaken

19 that are more realtime, such as optical observations.

20   MS. KATHERINE ENNS: Thank you for

21 that. Katherine Enns. I've got some -- I've got a

22 question about multiple use and potential for

23 agriculture use on the site.

24   You are distinguishing the difference

25 between industrial levels and designation for potential

 1 industrial use of the site from the gui -- guiding

 2 statements made by John Hull in public record number

 3 347, "Giant Remediation Presentation", where he says:

 4   "No intended present or future use of

 5   the site."

 6   Given that statement, would you think

 7 that it is more cautious to isolate that site from --

 8 from any future potential use?

 9   THE CHAIRPERSON: Thank you. I'll go

10 to the Developer.

11   MR. ADRIAN PARADIS: Adrian -- Adrian

12 Paradis on behalf of the Giant Mine project team. No.

13   MS. KATHERINE ENNS: No further

14 questions. Thank you.

15

16   (BRIEF PAUSE)

17

18   MR. ALAN EHRLICH: Mr. Chair, it's Alan

19 Ehrlich for the Review Board. The Review Board

20 environmental assessment officer Shannon Hayden has a

21 couple of questions regarding some details dealing with

22 the -- the subject of surface remediation.

23   MS. SHANNON HAYDEN: Hello. It's

24 Shannon Hayden. I'm staff with the Review Board. My

25 first question is about the contaminated soils on site.

1   The -- the Developer's assessment report

2 indicates that there is 960,000 cubic metres of

3 contaminated soil. It goes onto say that about 317,000

4 cubic metres will be dedicated to disposal in the

5 tailings ponds; 58,000 cubic metres in the B1 Pit;

6 75,000 cubic metres in the landfill; and about 3,000

7 cubic metres will be land farmed on site. That leaves

8 about 560,000 cubic metres of contaminated soil -- soil

9 require -- requiring on-site disposal.

10   So I'm wondering if you can address the

11 plans for tho -- that over half million. Thanks.

12   THE CHAIRPERSON: Thank you. I'll go

13 to the Developer.

14   MR. RUDY SCHMIDTKE: Rudy Schmidtke.

15 The -- the volumes that you've quoted, they're

16 estimates right now. The intent would be to fill up

17 the B1 Pit, and also to provide some intermediate fill

18 for the landfill, which we don't have a very good

19 volume on right now. We don't know how large it's

20 going to be. We've made some estimates.

21   The remainder of that material will be

22 utilized -- and this is, I think, to answer a question

23 from Mr. Ehrlich and the Board, on the geotextile

24 issue. Much of that material can be placed into the

25 tailings area to increase trafficability.

 1   The geotextile is there to offer some

 2 stability and allow material to move together, not rut,

 3 et cetera. So any material that would be left over

 4 would be placed into the tailings area to facilitate

 5 construction and equipment movement so the cover can be

 6 placed on top.

 7   THE CHAIRPERSON: Thank you. I'll go

 8 back to the Review Board staff.

 9   MS. SHANNON HAYDEN: Okay, thank you.

10 Shannon, with the Review Board again. One (1) more

11 question. Water treatment will be conducted

12 indefinitely, which will continue to produce a sludge.

13 The project design is to dispose of the sludge in an

14 on-site landfill. There's a couple of questions to

15 follow.

16   Do you have an estimate for the amount

17 of sludge that will pre -- will be produced over the

18 life of the project? Is there sufficient capacity in

19 the current design for the life of the project, or will

20 additional landfill eventually be required? Will --

21 where -- if so, where will it be located, and for how

22 long will the sludges and the cells be exposed prior to

23 being covered?

24   THE CHAIRPERSON: Okay, thank you.

25 I'll go to the Developer.

 1   (BRIEF PAUSE)

 2

 3   MR. RUDY SCHMIDTKE: Rudy Schmidtke.

 4 There were a lot of questions in that one (1) question.

 5 We have provided the estimates of the sludge in a

 6 response. I can't quote that right now. I can't

 7 remember. I don't want to guess.

 8   Six point three (6.3) cubic metres per

 9 day. Thank you. The -- the sludge would be placed

10 into a dedicated cell within the on-site landfill. As

11 I mentioned before, it's classed non-hazardous. The

12 volume of sludge will be reduced. If you recall, I

13 think, in the presentation that we gave yesterday, that

14 we plan and expect to treat a lot less water as the

15 project is implemented.

16   There will have to be, likely,

17 additional landfill cells placed, and we believe we

18 have sufficient room for that. From now to infinity, I

19 don't know. But we do have an allowance for other

20 technologies in the water treatment plant which

21 potentially could deal with that.

22   THE CHAIRPERSON: Okay, thank you. Is

23 there a follow-up question?

24   MR. ALAN EHRLICH: Mr. Chair, a very

25 brief follow-up question, if -- if I may? It's Alan

1 Ehrlich, with the Review Board.

2   Just getting back to that tailings

3 cover, I -- I assume there's some sort of subsidence

4 and settling once that cover is in place, because

5 you've got two (2) different kinds of covers and maybe

6 a membrane between them.

7   To the best of your knowledge, how long

8 will it be before settling is completed and that

9 tailings cover is stable?

10   THE CHAIRPERSON: Thank you. We'll go

11 to the Developer.

12   MR. JOHN HULL: Mr. Chair, John Hull.

13 The anticipated movement of the material for the

14 tailings for regrading, the -- the -- the tailings is

15 fairly free draining, that we would anticipated a year

16 to two (2) years to get the bulk of the settlement out

17 of it, which would address the question.

18   There would be long-term, ongoing

19 settlement, but it would be uniform and sh -- would not

20 or should not require regrading. There's always an

21 opportunity, if there are local areas that settle a --

22 a little more than anticipated, that a minor regrading

23 with new material to -- to reestablish drainage paths

24 would be address when required.

25   MR. ALAN EHRLICH: Thank you, Mr.

1 Chair. There are no further questions from Review

2 Board staff, experts, or counsel.

3   THE CHAIRPERSON: Thank you. I'm going

4 to go to Board member Danny Bayha.

5   MR. DANNY BAYHA: Thank you, Mr. Chair.

6 I guess earlier a question from Shannon about the 6.3

7 cubic metres per day; obviously, if you tell that to

8 somebody on the street, say, What the heck is that? So

9 can you put that in context, how much that might be in

10 terms of truckloads, shovel loads? I don't know.

11   I mean, you know, part of the issue here

12 is we need to have the communication very straight so

13 people understand what the heck you're talking about.

14 Thank you.

15   THE CHAIRPERSON: Thank you. I'll go

16 to the Developer.

17   MR. RUDY SCHMIDTKE: Rudy Schmidtke.

18 Six point three (6.3) metres is less than a dump truck.

19 Thank you.

20   THE CHAIRPERSON: Thank you. Danny

21 Bayha...?

22   MR. DANNY BAYHA: Thank you. And over

23 so many years, I guess that would accumulate. But,

24 anyways, that's -- I just wanted to get an

25 understanding of how much that might be for the average

 1 person on the street. Thank you.

 2   Moving on, I was thinking about the

 3 amount of -- everybody talks about the -- the -- the

 4 stopes and how much is in there; 237,000 tonnes always

 5 comes up.

 6   But the surface arsenic contamination

 7 that's there, can you give an approximate idea how much

 8 is on the surface that you have to deal with in terms

 9 of tailings, and can you give us an idea how much we're

10 dealing with? Thank you.

11   THE CHAIRPERSON: To the -- to the

12 Developer.

13   (BRIEF PAUSE)

14

15   MR. JOHN HULL: Mr. Chair, may I have

16 clarification on the question? Is he -- the gentleman

17 asking for the area of the tailings or the volume of

18 the tailings that would be remediated?

19   THE CHAIRPERSON: Mr. Bayha...?

20   MR. DANNY BAYHA: Thank you, Mr.

21 Chair. Yeah, the volume. And -- and if you can put it

22 in terms of, like, when you guys try to explain in

23 context the -- the amount of arsenic underground to a

24 building that people can understand, can relate to, in

25 the City of Yellowknife, that was helpful.

 1   So I would again ask if you can --

 2 whatever is on there that we could illustrate to the

 3 public how much that might be, in terms of baseball

 4 fields, football fields, truck loads -- like dump truck

 5 loads you said earlier. So it would be helpful. Thank

 6 you.

 7   THE CHAIRPERSON: Okay, thank you.

 8 I'll go to the Developer.

 9   MR. ADRIAN PARADIS: Adrian Paradis, on

10 behalf of the project team. Typically during our --

11 any site tour that we do on site, we roughly equate the

12 surface volume -- or, not volume -- surface area to

13 approximately three hundred (300) football fields.

14 I've never actually sat down to figure if that's CFL or

15 NFL standard size, but it's approximately three hundred

16 (300) football fields.

17   THE CHAIRPERSON: Can you give me a

18 recalculation with that for American? I'm just

19 kidding. Mr. Bayha...?

20   MR. DANNY BAYHA: Okay. So that --

21 that'll be involving surface area. I guess that'll

22 cover that. And in terms of depth, let's say, is it 2

23 feet, 2 inches, 60 metres?

24   MR. ADRIAN PARADIS: Adrian Paradis, on

25 behalf of the project team. The depths vary across the

1 site. Are we -- a moment here. I think we actually

2 maybe have -- I can give you some actual specific

3 depths here. I think the team is looking for it.

4

5   (BRIEF PAUSE)

6

7   MR. ADRIAN PARADIS: Well, they're --

8 they're actually trying to do the calculations right

9 now behind me. Tailings -- historically, the tailings

10 were put into smaller ponds -- ponds or lakes across

11 the site. So some of the depths actually vary between

12 somewhere between 40 to 80 feet, depending upon where

13 you are on this site. It -- it does vary based on the

14 natural contours of the land.

15   If you're interested in specific

16 volumes, if you give us a moment, I can actually try

17 and give you something specific here in a few minutes.

18   THE CHAIRPERSON: Okay, thank you. Mr.

19 Bayha...?

20   MR. DANNY BAYHA: Yeah. Maybe once you

21 work it out, maybe it will be good later on in your

22 presentations, you could briefly mention it. That will

23 be helpful I think.

24   I asked you earlier, going back to your

25 presentation this morning, I'm just sort of curious. A

 1 -- again, it's about communication. It's about

 2 dialogue. It's about trying to get people to

 3 understand what you're talking about when they have the

 4 presentations.

 5   And it wasn't very clear on -- on slide

 6 15 and, I think it's, 18, where the remediation issues,

 7 if you will, sort of says on one (1) slide -- it says

 8 that it -- it eliminates flood risk. And then another

 9 slide you have -- yeah, see, it says remediation

10 eliminates flood risks and then you go to another

11 slide, it says reduces flood risk.

12   So I -- I guess we need to sort of -- I

13 guess from certainty point of view for -- for us, for

14 myself, for the Board, we need to have an idea if it

15 eliminates or reduces or reduces significantly to the

16 point of where it might as well not be there. The

17 risk, I'm talking about. So it would be nice to have -

18 - I guess, what is it? Is it eliminates or reduces?

19   And if we can, in the future when we

20 have discussion and presentation, I would ask that we

21 have respect for -- for our -- our translators and when

22 we talk about terms -- engineering terms as well, that

23 we be very plain language and explain the -- some of

24 the concepts that you guys are trying to get across.

25   THE CHAIRPERSON: Thank you.

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 1   MR. ADRIAN PARADIS: Adrian Paradis, on

 2 behalf of the project team. I'll -- I'll first try and

 3 address some of your concerns and comments there, and

 4 then I'll ask to pass them over to -- it would be

 5 Nathan or Rudy who would speak to us on the

 6 eliminations or reductions.

 7   Yes. Technical terms with the

 8 translators are one (1) of our challenges from a

 9 communications standpoint. It is one of the -- one of

10 the things that, actually, during the course of this

11 hearing on -- just this afternoon, I was sitting back

12 with translators, trying to go over some of the terms

13 to break them down into something easily

14 understandable. What is the roasters? I think it is

15 the best discussed as maybe the building that cooked

16 the -- the ore.

17   So I -- I -- I understand. It is -- it

18 is -- it's a challenge that we have and that we

19 continue to face and we can always improve upon. With

20 that, I think I'll try and ask that the folks at the

21 end of the table here pick up the next half to discuss,

22 "reduce" or "eliminate" on flooding risks on relation

23 to this slide.

24

25   (BRIEF PAUSE)

 1

 2   MR. NATHAN SCHMIDT: Nathan Schmidt,

 3 Mr. Chairman. Yeah, it eliminates -- it -- it looks a

 4 little unusual there. That really is in the context of

 5 Reach 3 and the proximity to C1 Pit. The area between

 6 the pit and the -- the stream in that reach is actually

 7 quite elevated, and so essentially what it means is if

 8 you -- if you had -- you know, the -- a flood exceeding

 9 the probable maximum flood, it would spill somewhere

10 else instead of here. So it's essentially eliminating

11 it at -- at Reach 3.

12   So it's accurate at this specific part

13 of the creek and then reduces, you know, the risk in

14 the -- for the overall project. Thank you.

15   THE CHAIRPERSON: Thank you. Danny

16 Bayha...?

17   MR. DANNY BAYHA: Thank you, Mr. Chair.

18 Yeah, that -- yeah, that's a little bit more better --

19 a clearer understanding. So I would appreciate that --

20 I mean, it would be helpful -- helpful every -- to

21 everybody. So again it goes back to the fact of

22 communication and your ideas.

23   And it's -- it's -- I -- I agree that

24 sometimes it's tough to -- to communicate technical

25 terms and technical concepts to the average person that

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1 speaks English, but even tougher for -- for folks that

2 have to translate it to a different culture.

3   So I -- I would ask that that be kept in

4 mind as -- as well, and I appreciate your answers.

5 Thank you.

6   THE CHAIRPERSON: Okay, thank you.

7 Rachel Crapeau...?

8   MS. RACHEL CRAPEAU: Mahsi cho, Mr.

9 Chair. No questions.

10   THE CHAIRPERSON: Thank you. Richard

11 Mercredi...?

12   MR. RICHARD MERCREDI: Yeah, I just had

13 a couple of questions. One -- one is on the -- the B1

14 site, the pit where you're disposing of the tailings,

15 as well as waste rock and then capping it.

16   Is there any chance that water would

17 seep through there and back into the mine and then

18 migrate to Great Slave Lake?

19   THE CHAIRPERSON: Thank you. I'll go

20 to the Developer.

21   MR. ADRIAN PARADIS: Adrian Paradis, on

22 behalf of the project team. I'll ask that John Hull

23 pick this question up and respond. Thank you.

24   MR. JOHN HULL: Mr. Chair, John Hull.

25 The B1 Pit, a lar -- large portion of it --

1 specifically, that portion connected to the arsenic

2 chambers and the underground -- would be frozen with

3 the frozen blocks. The water would, as Daryl

4 identified, if it did come close to it, to the frozen

5 blocks, it would freeze so that the water would not

6 enter the pit.

7   The second point, sir, the water level

8 in the mine will still be maintained below the base of

9 the -- the chambers, even when there's -- they're

10 frozen. That level is below the level of Great Slave

11 Lake, so that water would still report to the mine,

12 would be pumped and then go through the water treatment

13 plant so that it wouldn't go into the lake without

14 treatment.

15   THE CHAIRPERSON: Okay, thank you.

16 Richard Mercredi...?

17   MR. RICHARD MERCREDI: My second

18 question is on the Baker Creek, creating fish habitat.

19 Would the fish be edible that go up into Baker Creek

20 and return?

21   THE CHAIRPERSON: Thank you. I'll go

22 to the Developers.

23   MR. BRUCE HALBERT: Bruce Halbert, Mr.

24 Chair. Basically the determination of whether fish are

25 safe to eat or not is a -- is a public health

 1 determination, so not something that we would do as

 2 risk assessors.

 3   But the expectation is that the arsenic

 4 levels might -- and depending on the residency time of

 5 the fish -- be higher than they might -- than they

 6 would be from Yellowknife Bay or Great Slave Lake. So

 7 fundamentally, it wouldn't be probably recommended that

 8 one would go in there and fish.

 9   THE CHAIRPERSON: Okay, thank you. Any

10 further questions, Richard Mercredi?

11   MR. RICHARD MERCREDI: Just one (1)

12 last, I guess, comment. I guess it seems kind of

13 strange to create fish habitat when you can't eat the

14 fish. It seem like to me it would make more sense to

15 block the river off and create fish habitat somewhere

16 else in lieu of the contaminated water coming out of

17 Baker Creek. Thank you.

18   THE CHAIRPERSON: Okay, thank you for -

19 - for the comment. I'm going to go to James Wah-shee.

20   MR. JAMES WAH-SHEE: Thank you, Mr.

21 Chairman. I do have a question in regards to Baker

22 Creek. On the upstream of Baker Creek before it flows

23 into the contaminated site upstream, am I correct in

24 assuming that the Baker Creek upstream would not have

25 contamination prior to flowing into the contaminated

 1 area of the Giant Mine project?

 2   THE CHAIRPERSON: Thank you. I'm going

 3 to go to the Developer.

 4

 5   (BRIEF PAUSE)

 6

 7   MR. BRUCE HALBERT: Thank you, Mr.

 8 Chair. Bruce Halbert. The -- the water flowing down

 9 Baker Creek upstream of the Giant Mine site, so out of

10 Martin Lake and -- and in that intermediate section

11 connecting it to the downstream receiver, does

12 contained elevated arsenic levels.

13   Those levels are running in the order of

14 20 to 60 micrograms per litre, as I've previously

15 indicated. Very likely that is, at least in part, due

16 to a aerial deposition that occurred way back when,

17 when the facility originally was operated.

18   That watershed area is approximately 125

19 square kilometres compared to the reach downstream. It

20 is a productive system up -- upstream as -- as well.

21 And just to add to, I guess, my comment that I made on

22 the -- on the previous response is that our expectation

23 is that, over time, water quality within Baker Creek

24 will improve.

25   There would be ongoing fish sampling, a

1 submissions of samples for chemical testing and

2 provided to the contaminants group, with Health Canada

3 -- Canada and GNWT involved in that, and that, at some

4 point in time, they would make that determination, that

5 the fish indeed are safe to eat from that system.

6   So I hope I've clarified both -- both

7 questions.

8   THE CHAIRPERSON: Thank you. Mr. Wah-

9 shee...?

10   MR. WAH-SHEE: Thank you, Mr. Chairman.

11 Just based on your conclusion that you've just made,

12 that we assume that the fish will be healthy and that

13 it can be consumed, is that my understanding?

14   THE CHAIRPERSON: Thank you. I'll go

15 to the Developer.

16   MR. BRUCE HALBERT: Bruce Halbert, Mr.

17 Chair. That will be very much in part dependent upon

18 the fish species we're looking at. For example, Arctic

19 grayling move into that system mid-May, and they're

20 back out of that system by mid-June, typically. So

21 they're a very short-time resident of the -- of the

22 system and spend most of their time within Great Slave

23 Lake. And that's typical of a lot of species, so.

24   There are some species that do over-

25 winter in the system, but -- and, typically, they're

1 migrating in and migrating out of the -- of the

2 downstream reach.

3   THE CHAIRPERSON: Mr. Wah-shee...?

4   MR. JAMES WAH-SHEE: Thank you, Mr.

5 Chairman. In that case, okay, let's just go with your

6 scenario here, that the fish habitat that the project

7 is trying to improve in two (2) areas, I believe, so

8 you're going to get fish coming in from Great Slave

9 Lake going into Baker Creek, spawn. And then the --

10 the fish would go back to Great Slave Lake.

11   Is that correct?

12   THE CHAIRPERSON: Thank you. And to

13 the Developer.

14   MR. BRUCE HALBERT: Bruce Halbert, Mr.

15 Chair. That is correct. Species such as Arctic

16 grayling are -- are in for a short period of time and

17 they migrate out. They're -- the eggs, if you will,

18 when they hatch, they nurse there for a period of time.

19 And then they move out into Great Slave Lake as well.

20   THE CHAIRPERSON: Mr. Wah-shee...?

21   MR. JAMES WAH-SHEE: Thank you, Mr.

22 Chairman. So, therefore, the -- the fish that goes

23 upstream in Baker Creek spawn and they go back to Great

24 Slave Lake. Particularly, the fish that would spawn in

25 the Baker Creek would be contaminated as compared to

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1 other fish from Great Slave Lake that may spawn into --

2 entering into other creeks other than Baker Creek.

3   In other words my -- my question is

4 here, is that the fish that spawn in Baker Creek and

5 return to Great Slave Lake would be mixing with other

6 healthy species that do not enter a contaminated site.

7   Is that correct?

8   THE CHAIRPERSON: Thank you. I'm

9 going to go to the Developer.

10   MR. BRUCE HALBERT: Bruce Halbert, Mr.

11 Chair. It just struck me when you were asking that

12 question, there's another point of clarification I

13 probably should make. And that is that Baker Creek,

14 upstream of the Giant Mine Site, per se, has got

15 waterfalls in it. So fish are restricted in their --

16 in their migration route. Those that are upstream

17 typically wouldn't migrate downstream, "upstream" being

18 Bak -- Martin Lake and up.

19   Fortunately, arsenic doesn't accumulate

20 to a high level in -- typically within fish species,

21 and they will adjust over time to their new

22 surrounding. So even if a fish is in, let's say, Baker

23 Creek for a month and is exposed to higher levels of

24 arsenic than it would be back in Great Slave Lake it

25 will adjust -- it -- the body burden, if you will,

1 adjust as a -- over time as it migrates.

2   So it's not a -- not just the fish are -

3 - you used the word as "healthy". We're not talking

4 about a health issue with respect to fish. We're

5 talking about arsenic levels within the fish tissue

6 itself and what that means to other specifies who eat

7 the fish, which is our -- ourselves.

8   THE CHAIRPERSON: Okay, thank you.

9 Mr. Wah-shee...?

10   MR. JAMES WAH-SHEE: Thank you, Mr.

11 Chairman. Just to change my question here, in your

12 presentation you made reference to 3 megawatts that

13 would be required. I would assume that the requirement

14 would be for your treatment plant to operate.

15   Am I correct?

16   THE CHAIRPERSON: Thank you. We'll go

17 to the Developer.

18   MR. ADRIAN PARADIS: Momentarily, I'll

19 -- do you remember what slide? It's Adrian Paradis,

20 for the record.

21

22   (BRIEF PAUSE)

23

24   MR. BRUCE HALBERT: Bruce Halbert, Mr.

25 Chair. The 3 megawatts of power requirement shown here

1 on this slide is primarily for the freeze plant

2 operation. That's a fairly short duration, if you

3 will. It's not over the life of the project. It's

4 just during the installation of the freeze system and

5 getting the -- the blocks in place.

6   The ongoing power requirements for

7 operation of the treatment plant in the long term, I'll

8 ask Rudy or John to comment on that.

9   MR. RUDY SCHMIDTKE: I'm waiting for

10 you, Mr. Chair, because I don't know the answer to

11 that. I can get back to you. Bob Boone had to step

12 out, and I can give you that answer by the end of the

13 week.

14   It -- it's much smaller than 3

15 megawatts, yes. Thank you.

16   THE CHAIRPERSON: Can you provide that

17 information today or tomorrow?

18   MR. RUDY SCHMIDTKE: I will attempt to

19 provide it today, yes.

20   THE CHAIRPERSON: Okay, thank you.

21 Mr. Wah-shee...?

22   MR. JAMES WAH-SHEE: Thank you, Mr.

23 Chairman. Regarding your treatment plant, is your

24 treatment planned -- plant required to run on a

25 continuous basis?

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 1   THE CHAIRPERSON: Thank you.

 2 Developer...?

 3   MR. RUDY SCHMIDTKE: Mr. Chair, the

 4 plant is -- is planned to run for twenty-four (24)

 5 hours a day. Thank you.

 6   THE CHAIRPERSON: Thank you. Mr. Wah-

 7 shee...?

 8   MR. JAMES WAH-SHEE: Mr. Chairman,

 9 thank you. Have you made any plans for power outages

10 that happens in Yellowknife only on an occasional

11 basis?

12   THE CHAIRPERSON: Thank you. The

13 Developer...?

14   MR. RUDY SCHMIDTKE: Rudy Schmidtke. I

15 think the power is on. Yes, we have a backup generator

16 planned for the water treatment plant.

17   THE CHAIRPERSON: Okay, thank you. Mr.

18 Wah-shee...?

19   MR. JAMES WAH-SHEE: Thank you, Mr.

20 Chairman. That's all I have. Thank you. Thank you

21 for your...

22   THE CHAIRPERSON: Thank you. I want to

23 go to Percy Hardisty.

24   MR. PERCY HARDISTY: Mahsi, Mr. Chair.

25 I don't have any questions at the moment.

 1   THE CHAIRPERSON: Okay, thank you. I'm

 2 going to go to Board member John Curran.

 3   MR. JOHN CURRAN: Thank you, Mr.

 4 Chairman. A question for the Developer. Looking at

 5 the total project cost, how much of that could you

 6 attribute to work to be done on Baker Creek?

 7   THE CHAIRPERSON: Thank you. I'll go

 8 to the Developer.

 9   MR. ADRIAN PARADIS: Momentarily, sir.

10 Adrian Paradis, for the record.

11

12   (BRIEF PAUSE)

13

14   MR. MICHAEL NAHIR: Thank you, Mr.

15 Chair. We would like to get back to you on that, just

16 because we want to get that -- it's -- it's not a --

17 it's not a big number. But anyway, we want to get back

18 to you on that. Thank you. Mike Nahir.

19   THE CHAIRPERSON: Okay. Can you either

20 today or tomorrow, if you get that information to us?

21   MR. MICHAEL NAHIR: Yeah. We -- we can

22 commit to that.

23

24 --- COMMITMENT NO. 5:   Developer to provide

25   information regarding how

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 1   much of the total project

 2   cost could be attributed to

 3   work to be done on Baker

 4   Creek

 5

 6   THE CHAIRPERSON: Thank you. Mr.

 7 Curran...?

 8   MR. JOHN CURRAN: All right. I would

 9 like to come back to my question that would follow that

10 one then later when we have that number, but I'll --

11 I'll change gears right now then. Maybe I'll hold off.

12   MR. MICHAEL NAHIR: Sorry. Everybody's

13 coming at me, so just -- I'm good now, thanks.

14   THE CHAIRPERSON: Sorry, go ahead, Mr.

15 Curran.

16   MR. JOHN CURRAN: Sorry, I thought may

17 -- we might have a number there. On day 1, I'd asked

18 you what the biggest threat to the frozen blocks was,

19 and the answer was that it's a series of things, that

20 it's the government failing and a flood happening -- or

21 government failing, loss of power, a number of steps

22 down the line.

23   And I think that they basically all end

24 with: And water hits the arsenic and carries it away.

25 Is that a fair statement?

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1   THE CHAIRPERSON: Thank you. I'll go

2 to the Developer.

3

4   (BRIEF PAUSE)

5

6   MR. MICHAEL NAHIR: Mike Nahir. Thank

7 you, Mr. Chair. Yes, and -- and the water would come

8 in contact with the arsenic, the arsenic would dissolve

9 and then move out into the system. Thank you.

10   THE CHAIRPERSON: Thank you. John

11 Curran...?

12   MR. JOHN CURRAN: Given that fact, it

13 feels like there's a disconnect in my mind. We have

14 two (2) divergent issues here. We have the immediate

15 health concern that the remediation project is

16 attempting to resolve, and we have the long-term

17 storage of the arsenic, which puts the creek, in my

18 mind, in -- right now, and maybe you can help clarify

19 this for me, but it -- it feels like the creek is in

20 conflict with the frozen blocks of arsenic.

21   If you had the opportunity to adjust

22 course, would you rather change the time scale on your

23 project or the location of the creek? In other words,

24 would this be a one hundred (100) year storage of

25 arsenic so that we can find the better method, or is

1 this a perpetual care site with a creek somewhere else?

2   THE CHAIRPERSON: Thank you. I'll go

3 to the Developer.

4

5   (BRIEF PAUSE)

6

7   MR. MICHAEL NAHIR: Mr. Chair, just one

8 (1) second, please. Mike Nahir.

9

10   (BRIEF PAUSE)

11

12   MR. DARYL HOCKLEY: The -- the

13 question, if I could parapr -- Daryl Hockley speaking.

14 If I could paraphrase the question, it's: Would it be

15 a good idea to move Baker Creek somewhere else? Is

16 that rough -- roughly...

17   THE CHAIRPERSON: Thank you. Mr.

18 Curran...?

19   MR. JOHN CURRAN: If you plan to keep

20 the arsenic there forever, would it be a good idea to

21 move Baker Creek somewhere else? Or if we're going to

22 leave Baker Creek there, would it be a good idea to

23 commit to move the arsenic somewhere else?

24   THE CHAIRPERSON: Thank you. I'll go

25 to the Developer.

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1   MR. DARYL HOCKLEY: Daryl Hockley.

2 Thanks, that's -- there -- there's a -- a few things I

3 think that are being -- being missed in this whole line

4 -- line of questions. I can see now the -- I

5 understand some of the other questions. I think

6 there's a few things that are being missed in it.

7   The first, Mr. Halbert explained to Mr.

8 -- Mr. Wah-shee's question that there is contamination

9 upstream of the mine. In other words, before the water

10 ever gets to the mine, it's contaminated with arsenic.

11 So if we take that creek and put it somewhere else,

12 we're putting that arsenic contamination somewhere

13 else.

14   We have -- we haven't changed -- we

15 haven't made the creek clean. It's -- it's

16 contaminated coming into the site, and it's still going

17 to be contaminated somewhere else. And it will

18 contaminate a new set of sediments and wetlands and

19 anything else it impacts on the way to wherever it's

20 going. Okay.

21   The -- the second -- the second, I

22 think, misunderstanding is that just by moving the

23 creek, we haven't prevented the mine from flooding.

24 We've prevented the -- the fastest way to flood the

25 mine, which is if the creek jumps its banks.

157

 1   But any failure of the groundwater

 2 system, the groundwater management system, over time

 3 would also flood the mine. The -- the natural

 4 groundwater level in that area is -- is well above most

 5 of the chambers. Not all of them, but well above most

 6 of the chambers.

 7   So the natural groundwater alone can --

 8 can flood that mine. So I -- I think maybe you can see

 9 where I'm going here. The -- the benefits of moving

10 the creek aren't as great as -- as you -- as one might

11 think, and the reduction in risk isn't as great as one

12 might think.

13   That, in a nutshell, I think, is -- is

14 why, after twelve (12) years of -- of working on this

15 project, we have the project that's put before you

16 today. It -- it does represent what we consider to be

17 the -- the best -- the best proposal for managing risks

18 over the very long term.

19   If we knew that another method was going

20 to come along in -- in one hundred (100) years or fifty

21 (50) years, we might well consider other temporary

22 measures. But we really don't know that.

23   So as engineers, it would be dishonest

24 for us to give you a plan that holds out the hope of

25 something totally different ten (10) years down the

158

1 road. We think we have to give you a plan that will

2 last over the long term, and that's the plan that we've

3 put on the table now.

4   THE CHAIRPERSON: Okay. Thank you.

5 Mr. Curran...?

6   MR. JOHN CURRAN: Thank you, Mr.

7 Chairman. Could I just ask that the -- the Developer

8 restate the commitments? I know there's one on a -- a

9 ten (10) year review of technology.

10   Are there any others along those same

11 lines that we should get on the record right now in

12 relation to the questions I'd asked?

13   THE CHAIRPERSON: Okay. Thank you.

14 I'll go to the Developer.

15   MR. DARYL HOCKLEY: Daryl Hockley

16 again. Yes, thanks. The -- there is a -- the ten (10)

17 year review, and then there's a more thorough review on

18 -- on occasions, although the -- the -- ten (10) year

19 reviews are probably the most important.

20   I -- I would -- based on my experience,

21 I would think things are going to change kind of ten

22 (10) year time scales. By the time a method -- by the

23 time a scientist dreams up a method and the time he

24 gets it to -- to fruition, I'm -- it's not something

25 that happens in six (6) months. I would say those ten

1 (10) year ones are -- are the ones that people should

2 really focus on.

3   We may, in the documents, have a hundred

4 year or something. I'm not sure. But I would put --

5 if I was a concerned citizen, I would put my interest

6 in those ten (10) year ones, I guess, going forward.

7   Yeah. And just, by the way, although we

8 feel it's our -- the only honest thing, as engineers,

9 to put forward something that will last as long as we

10 need it, we also hope that there will be other options

11 sometime in the future. So -- so we are quite -- make

12 no mistake about it. We are quite enthusiastic about

13 these periodic reviews too. We just think it's our job

14 as a developer to give you something that doesn't hold

15 out the hope that maybe we may not be able to fulfill

16 ten (10) years or a hundred years in the future.

17   THE CHAIRPERSON: Thank you. John

18 Curran...?

19   MR. JOHN CURRAN: At -- at the ten (10)

20 year review stage, are we mainly just looking at

21 methods of handling arsenic and storing arsenic, or are

22 we getting into new thermosyphons, new water treatment

23 plants? How -- what technology exactly are we

24 reviewing at the ten (10) year mark?

25   And while the -- the ten (10) year

 1 anniversary may be more important in your mind, perhaps

 2 you could tell us how the hundred-year review is more

 3 thorough and what makes it more thorough.

 4   THE CHAIRPERSON: Thank you. We'll go

 5 to the Developer.

 6

 7   (BRIEF PAUSE)

 8

 9   MR. MICHAEL NAHIR: Thank you, Mr.

10 Chair. It's Mike Nahir. We haven't fully scoped out

11 what those reviews would look like. We were -- and

12 there's going to be more discussion about that

13 tomorrow, and so we want to have that more full

14 conversation.

15   But in short, we were going to -- our

16 intention was to work with interested parties to

17 develop that kind of level of review. It will be

18 methods and means, so both -- both how -- you know,

19 both -- different ways of doing it as well as

20 improvements on the existing system perhaps, or changes

21 that are appropriate at that -- based on very thorough

22 review of what would make sense at that time. But more

23 to follow. Thank you.

24   THE CHAIRPERSON: John Curran...?

25   MR. JOHN CURRAN: All right. Not to

1 belabour the point then, but I just want to make sure I

2 completely understand there. You'd be looking at

3 performance of the system that you have in place every

4 ten (10) years with representatives from the interested

5 parties and the community at large. You'd be paying

6 for those reviews, I guess, then.

7   And yet the other parties and the

8 community would have input on what's to be reviewed?

9   THE CHAIRPERSON: Thank you. We'll go

10 back to the Developer.

11   MR. MICHAEL NAHIR: Thank you, Mr.

12 Chair. Mike Nahir. That those -- in short, those

13 statements are correct. Thank you.

14   THE CHAIRPERSON: Mr. Curran...?

15   MR. JOHN CURRAN: Thank you, Mr.

16 Chairman. Nothing further at this time.

17   THE CHAIRPERSON: For the record, from

18 11 o'clock last night. Thank you.

19   Okay. Thank you for that presentation

20 and all the questions from this morning and this

21 afternoon. We'll go into the presentations on surface

22 remediation, from YKDFN. They've got thirty (30)

23 minutes; Alternatives North, fifteen (15); and North

24 Slave Metis, five (5).

25

 1   (BRIEF PAUSE)

 2

 3   THE CHAIRPERSON: While -- while

 4 they're setting up, maybe Adrian can respond to a

 5 question before by Danny Bayha.

 6   MR. ADRIAN PARADIS: Adrian Paradis, on

 7 behalf of the project team. Mr. Bayha had asked about

 8 total tailings volumes, everything else, kind of giving

 9 an idea of the rough approximation about surface,

10 volume, and area. There's 13.5 million tonnes total.

11 This is a -- this is spread across four (4) tailings

12 areas, 95 hectares, or three hundred (300) football

13 fields.

14   The average depth of the tailings ranges

15 from 30 to 45 feet, with the max up --

16   THE CHAIRPERSON: Adrian, can you hang

17 on one second, please?

18   MR. ADRIAN PARADIS: Please.

19   THE CHAIRPERSON: Can I ask the people

20 in the background to -- we can't hear what's going on

21 here. So if you want to talk, you may have to step

22 outside. Continue on, Adrian.

23   MR. ADRIAN PARADIS: Okay, I -- I will

24 start again from the top, just so that the transcripts

25 colle -- capture it all, Mr. Chair.

 1   To follow up mi -- Mr. Bayha's question,

 2   there's 13.5 million tonnes -- million tonnes of

 3   tailings on site across 95 hectares, or approximately

 4   three hundred (300) football fields. The average depth

 5   ranges from 10 to 15 metres, or 30 to 45 feet, with a

 6   max depth of 22 metres, or 66 feet, in the central

 7   pond. Thank you.

 8   THE CHAIRPERSON: Thank you. Danny

 9   Bayha...?

10   MR. DANNY BAYHA: Thank you. That --

11   that's helpful. Thank you.

12   THE CHAIRPERSON: Mahsi, Mr. Bayha.

13   And we're going to continue on now. We got thirty (30)

14   minutes for YKDFN on their presentation, starting now.

15

16   (BRIEF PAUSE)

17

18   POSITION PRESENTATION BY YKDFN - SURFACE REMEDIATION:

19   MR. RANDY FREEMAN: Press the button.

20   Go ahead. Thank you, Mr. Chair.

21   Today we're here to discuss issues

22   associated with surface remediation and with Baker

23   Creek. But I'd like to start by returning the

24   attention of the Board to what Chief Sangris stated on

25   Monday.

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1   The prerequisites for the Yellowknives

2 Dene to consider this project acceptable have not been

3 met by this remediation plan. We want to reiter --

4 reiterate that this plan does not address the

5 fundamental concerns of the Yellowknives Dene.

6   Chief Sangris stated that the -- that

7 land must be made clean and productive, the berries and

8 plants must be safe, and the watershed and the waters

9 of Baker Creek must be remediated so that the fish that

10 use this area to live and spawn, and then end up in our

11 nets, are not exposed to the legacy of this mine.

12   Yellowknives Dene First Nation want the

13 arsenic to be removed, the hazard mitigated, and the

14 land made safe. Simply freezing arsenic is not a

15 viable alternative for -- for perpetuity. Capping the

16 tailings and forgetting about the threat and the

17 answers to our concerns about arsenic that will remain

18 in the discharged water are not acceptable.

19   Research and technology -- and I can't

20 emphasize this strongly enough. Research and

21 technology must be a focus of the environmental -- of

22 this environmental assessment's recommendations and of

23 any future plans for the project. Yellowknives Dene

24 will never stop wanting these measures.

25   This is a matter of trust. When we hear

165

1 statements like, We're developing this information, or,

2 It's subject to further concerns, or -- or that the

3 project is exploring the issues or that research is

4 required, what we hear is that our concerns are not and

5 will not be addressed.

6   If there are no ironclad measures to

7 address our concerns -- and -- and from last night's

8 sessions, these are obviously the concerns of many

9 people in Yellowknife. If there are no ironclad

10 measures to address everyone's concerns, and based on

11 the Proponent's responses to our concerns to date and

12 the lack of good faith consultation, Yellowknives Dene

13 First Nation can only assume that there will be no mit

14 -- accommodations and that the threat that is Giant

15 Mine will remain well into the future.

16   With that said, I would like to turn it

17 over to Todd Slack, our regulatory specialist, to say a

18 few words. And -- and then he will be followed by

19 Michele Paper and Isadore Tsetta.

20

21   (BRIEF PAUSE)

22

23   MR. TODD SLACK: Thanks, Randy. Hi,

24 Mr. Chair, and Board member. My name is Todd Slack,

25 and it's a pleasure to address you once again.

 1   I'm not going to speak to the specific -

 2 - specifics of the remediation plan put forward by

 3 AANDC, because they've got some whip-smart people over

 4 there, and we have a certain amount of faith in the

 5 position that they've adopted.

 6   However, this position was not based on

 7 objectives or goals as defined by the Yellowknives

 8 Dene, and this is part of the overriding problem.

 9 Right from the get-go, there was a disconnect between

10 what they decided to do and what the Yellowknives

11 wanted to see.

12   However, through this process we've

13 tried to work with the project time and time again. We

14 want to believe in the project, and we've tried to make

15 it acceptable and put measures forward that will turn

16 this into a success. We've looked for things that will

17 provide comfort to the concerns of the Yellowknives.

18   However, these assurances have not been

19 forthcoming, and thus we're forced to turn these --

20 turn these issues over to the Board rather than

21 arriving at a -- sorry, excuse me -- rather than

22 arriving at a collaborative endpoint.

23   Now, I'm going to use the same topics

24 that they used on their second slide, I believe, and I

25 -- I'm going to discuss them individually. But I just

 1 want to remind the Board members that these are issues

 2 of the whole, that they need to be considered in a

 3 cumulative manner.

 4   First I'm going to talk about Baker

 5 Creek. Now, we heard a lot today about this -- this

 6 creek, including that the national guidelines developed

 7 by the Canadian Council of Ministers of the Environment

 8 don't apply to this project.

 9   What I want to point out is that this

10 project has been in the government's hands for thirteen

11 (13) years, and we still don't have a plan. They

12 haven't finished that sediment survey, and they have

13 not advanced their vision of what this site's going to

14 look like -- what this part of the site is going to

15 look like.

16   Their objective was -- and this is on

17 page 2 of the DAR, I believe -- was to en -- ensure

18 that Baker Creek was restored to as productive a

19 condition as possible. This is one (1) of five (5)

20 overarching goals, and we talked about this earlier.

21 It seems clear to the Yellowknives that despite this

22 being one (1) of the five (5) primary goals, the

23 project has not put in place enough effort to turn this

24 into an effective restoration plan. They have not

25 brought sufficient focus and sufficient concern to

1 address the views that we've heard today.

2   This provides no comfort. Tomorrow

3 we're going to talk about how this project has been

4 organized in a way to provide a minimum amount of

5 commitment. And we suggest this is just another

6 example where the project has complete freedom of

7 action to either chose or to refuse to undertake

8 further remediation action regardless of the study

9 results, remembering of course that this study is not

10 tied to any thresholds or objectives criteria, because

11 the project has not provided this information.

12   And to point out, this is the same

13 information that would be required of any private

14 sector busi -- or private sector proposal. In the Nico

15 case that we were all talking about two (2) weeks ago,

16 this was an essential issue.

17   I'm going to phrase this as a simple

18 question. I encourage the Board to look at the first

19 eighteen (18) slides of the Developer's presentation

20 and to consider that goal that we just mentioned: to

21 restore Baker Creek to a productive condition.

22   Though the Developer said slide 4

23 illustrates their plan to do this, the Yellowknives

24 Dene would argue that not a single one (1) of those

25 eighteen (18) slides on Baker Creek actually talk about

1 how they intend to make sure that Baker Creek will be

2 restored. They're all focussing on the safety of

3 flooding for the mine. The project's real goal seems

4 clear here, and YKDFN don't believe it's about

5 restoration.

6   This is a significant environmental

7 concern, because the fish that use Baker Creek don't

8 stay there. They migrate in and out of the area and

9 eventually into the nets of the Yellowknives Dene

10 fishers.

11   We've seen the level commitment from

12 Health Canada on this project. And I want to speak on

13 my experience on other situations in which you enter

14 this conflux of departmental responsibilities that is

15 fish health.

16   It is a very difficult scheme to

17 navigate and I can say with complete certainty that no

18 department shows a real willingness or desire to help

19 First Nations understand or to promote fish health. As

20 former Fred -- or, former Chief Fred Sangris spoke

21 yesterday, this is one of the roads that the Crown

22 could have improved and safeguarded the Yellowknives

23 treaty rights.

24   If the Board allows this matter to be

25 deferred until this study is completed, until after the

1 environmental assessment, there will be nothing done on

2 this project. If they have -- they've had thirteen

3 (13) years and haven't figured out what they're going

4 to do.

5 YKDFN suspect that that will continue

6 into the future. YKDFN are asking nothing more than

7 the proponent adheres to the goal that they have listed

8 in the DAR: remeding -- remediating Baker Creek and

9 restoring environmental health to a -- a position in

10 which wildlife and water are not impacted. However,

11 we're asking this to be enshrined in a measure.

12 I'm going to move to the open pits. And

13 Chief Sangris spoke that this site -- on Monday, Chief

14 Sangris spoke and stated this site must be safe and the

15 hazards removed. Clearly, these open pits represent a

16 hazard to human health and safety. Mr. Nahir, in his

17 introduction, described these as eight (8) small and

18 medium-sized pits. And since the beginning of our

19 process -- early environmental assessment process YKDFN

20 have clearly stated that the plan is inadequate.

21 Fencing and berming when adjacent to a

22 city is a recipe for tragedy. If these pits are not

23 large, then, simply put, they should be filled to avoid

24 the risk to human health and maximize the future land

25 use options.

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1   Had this issue been a true goal of the

2 project rather than an afterthought, we're quite sure

3 that this wouldn't be -- even be a matter we're

4 discussing, that this would have been addressed within

5 the DAR itself.

6   The failure shows that the narrow view

7 the project has taken, similar to in the Baker Creek

8 project, where they considered only from a flooding

9 aspect. It shows that the project was designed around

10 that frozen block idea rather than those original five

11 (5) site-wide objectives.

12   The next topic that the Proponent

13 discussed was future land use. And earlier in the

14 process, last night, and in Mr. Paradis' interview on

15 CBC on Monday there was indications that this site is

16 going to be open for future residential uses.

17   But we must be cognizant that the

18 project has committed only to reclaiming the site to

19 industrial standards. And this boils down to a simple

20 question to me and I will -- if this is going to be

21 open to residential uses in the future, how many -- how

22 many members of the development team are going to be

23 living on that site in the future.

24   Once we -- once the Yellowknives Dene

25 see that then we'll know this land is safe, because

1 when they're living there, their kids are playing in

2 Baker Creek and at the marina, then obviously we can

3 take security -- or we can take solace and security and

4 know that this site will be safe.

5   The site can be made safe again and it

6 can be made useful again, but thus far the project has

7 chosen the lowest bar of rec -- remediation, and we

8 shouldn't pretend it's anything but.

9   YKDFN asks the Board to require a -- a

10 collaborative planning process that recognizes the city

11 and Yellowknives are still in negotiations, and this be

12 included as part of the perpetual care plan.

13   We acknowledge this might not be the

14 best fit here, but we're open to whatever language or

15 measures the Board may decide that addresses this in a

16 binding manner. Existing tailings, as the Chief

17 stated, the Yellowknives Dene accept the capping of

18 tailings represents an improvement for today. It helps

19 solve the dust emissions, which is a significant

20 concern to the Yellowknives Dene at present. It is a

21 common and well understood method and it should be

22 available for rapid installation.

23   However, the main issue with capping the

24 tailings is that it is one (1) of the least effective

25 methods as it serves to cover up the fundamental

1 problem without removing the direct cause of future

2 impacts to the Yellowknives and the people of the

3 Territory.

4   We ask the Board to remember that there

5 are, as we just heard, 13.5 million tonnes of tailings

6 on site. And member Bayha asked for a description of

7 what this is. And this is four hundred and thirty-

8 seven (437) blanket (phonetic) buildings.

9   While the per unit risk may be lower

10 than arsenic trioxide, the sheer volume means that this

11 risk is potentially significant. Thus, the YKDFN

12 require that the consideration of alternatives focusses

13 not just on arsenic trioxide but permanent solutions

14 for the tailings.

15   Secondly, assuming that this remediation

16 project implements appropriate mitigations so as not to

17 cause significant impacts or concerns, YKDFN asks the

18 Board to require this process to be a priority of any

19 approved reclamation scheme with implementation

20 required in the first year.

21   We heard from the consultants how -- I

22 think it was Rudy, how he is very concerned about the

23 roaster. Well, we've also heard from the Elders and

24 the YKDFN how concerned they are about the dust that

25 they experience every day or drive through every day,

1 and have driven through and experienced for thirty (30)

2 or forty (40) years, or fifty (50) or sixty (60) years,

3 however far you want to think about it.

4   Moving on. As a line of questioning,

5 there was some difficulty getting to the bottom of

6 this, but, fundamentally, it seems that every mine in

7 this territory wants to use the Chief Drygeese

8 territory as a dump. It seems that it's never a

9 problem to bring stuff to site, but once there, it

10 never leaves.

11   YKDFN do not trust that the Proponent,

12 on its own, will design the site with sufficient

13 consideration for those who live and rely on this area

14 when it comes to balancing potential tradeoffs between

15 costs and risk.

16   Given the history of AANDC with

17 regulating and managing the site, YKDFN have two (2)

18 suggestions for this. Either the nonhazardous debris

19 be required to be -- to be deposited in the new City of

20 Yellowknife dump, or if the city refuses, then city

21 engineers should approve the final design,

22 construction, and deposition of the on site landfill.

23   In addition to providing confidence to

24 YKDFN, the City has recently completed a water

25 licensing permitting process and may have efficiencies

1 to offer the Proponent.

2   As my second-last topic I'm going to

3 talk about air quality. And I'll be very quick because

4 we talked about this two (2) weeks ago and the same

5 issues apply.

6   Just as member Mercredi pointed out, the

7 connection between potential wetland treatment at Nico,

8 a number of parties talked about the lack of air

9 quality -- air quality regulation and the ability for

10 this to be enforceable.

11   I submitted our comments to the Board,

12 and I would argue that they remain the same. And I'll

13 allow the Board members to review them. But the

14 essential issue is that the party, as they stated in

15 their responses, don't believe that they require a

16 measure for enforceable commitments. YKDFN don't agree

17 with that.

18   Now, I'm going to use this opportunity

19 to talk about socioeconomic issues very quickly because

20 this doesn't appear on the agenda anywhere. We're

21 talking about a plan that the YKDFN believe can be made

22 tolerable if undesirable. Part of the accommodations

23 and mitigations required for this is the direct

24 economic benefits be that the Yellowknives Dene can

25 benefit from this. It is they who have paid the

 1 greatest price.

 2   As the Chief said, this does not make

 3 wrongs right. And the prospect to arrive at more

 4 permanent solutions must be continued to strive for.

 5 The Yellowknives Dene remain disappointed the pro --

 6 the Proponent has not addressed the drinking water pipe

 7 aspect. And we recognize that this is out of the

 8 scope, but socioeconomic issues are certainly within

 9 the scope of this EA.

10   The Yellowknives Dene membership rely on

11 the -- the City of Yellowknives' drinking water, and

12 this often an issue that the Elders comment on. If

13 that pipe is not part of the project and is not paid

14 for, then clearly the City is not going to put it in

15 the bay, because that doesn't have sufficient drinking

16 water protection. Those co -- the costs of water will

17 go up and the Yellowknives members are going to have to

18 pay more.

19   The City has made this balance clear.

20 The project -- and the result will be that this project

21 will continue the impact started by the Proponent that

22 the -- pardon me, please. This project will continue

23 the impact started -- permitted by the Proponent so

24 many years ago. We ask the Board to ensure through bin

25 -- binding means that the YKDFN no longer have to pay

 1 the price of the Proponent's poor decisions of the

 2 past.

 3   So I'm not going to take up any more

 4 time because I know our Elders want to speak. And I'll

 5 just wrap it up at that. I believe up next is the

 6 chair of the Elders' Senate, Isadore Tsetta.

 7   THE CHAIRPERSON: Thank you. Before

 8 we go to the Elders I just want to rem -- remind you

 9 that we had thirty (30) minutes on the agenda for this,

10 so if we could try and stick to the agenda on that

11 time.

12

13   (INTERPRETATION FROM TLICHO INTO ENGLISH)

14

15   ELDER ISADORE TSETTA: Thank you.

16 Thank you for giving me a chance to speak my concerns.

17 We want to sit -- we can't just sit back and not say

18 nothing. I'll speak of the damage that's been done to

19 our land.

20   The last ten (10) -- nine (9) years ago

21 we had a meeting, we sit -- we went to the mine site

22 and visit the mine site. And how it -- it's been --

23 the arsenic being stored under mine, we just covered

24 that topic -- that's it -- at that time. But they're

25 saying that for the next hundred years that even the

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1 arsenic that's being stored that it's be -- it be fine

2 to be stored under there. But now that we have a

3 chance to -- to express our ver -- our concerns.

4   I was a Chief at one time and I had to

5 attend a lot of meetings and a lot of concerns came out

6 about how the other mines has been -- how the community

7 had been treated with a mine that been abandoned mines.

8 And -- and here I know a lot of other mines, it was put

9 in place and then left like that, and that community is

10 very concerned.

11   But the arsenic is a very -- concern to

12 us that -- would -- they have to live up to their

13 standards, what the community wants. It don't want --

14 they can't know whenever that got anything out that --

15 big damage that's -- that's been done to our people.

16 Even the coal mine where we had witness what happened

17 to our people.

18   And after that there is the -- the

19 concern is that Baker Creek, and we didn't know what

20 was happening. The very start of the mine that those

21 prospector were coming in and they never did consult

22 the -- the Chief, the boss. And this is kind of damage

23 that you guys going to witness in the future.

24   No consultation with the people at that

25 time. Maybe if they consulted even the Chief, maybe we

1 would have known what was happening, maybe we would

2 have got some kind of implement -- some kind of IBA in

3 place. And whoever's land is that they should have to

4 consult with them. The -- they didn't know that this

5 contaminated, that it's so bad, that they're going to

6 be working with arsenic.

7   The arsenic, what we're talking about,

8 it was never made around here in this area. We need to

9 put some com -- implement in place that how the arsenic

10 is going to -- what's going to be done with it, ship it

11 out or -- so we still have real concerns.

12   At that time when we had meeting at the

13 Giant Mine, at this site and we're going to ask

14 questions. It can be shipped out -- it can be shipped

15 out. It's kind of dangerous. It's very dangerous to

16 the public. Even the storage is hundred year. Hundred

17 years is not long, and after that time we don't know

18 what is going to happen. How about if there's some

19 kind of -- earth shook, that everything is damaged,

20 even the river, the -- the Baker Creek, and the

21 lifestyle. Got the fish.

22   At that time we had worked with some

23 other people checking around the mine site. We had to

24 work with them at one (1) time when they first started

25 the mine. There was just a few of us that worked with

 1 ten (10) other people at the mine site at that.

 2   And one (1) time we used to fish and

 3 drink all -- the Giant Mine around that area. Not

 4 today. We can't do those things. We're not talking

 5 about today, we're talking about the next generation

 6 and generation after that. We're talking for the

 7 little babies, and we cannot -- I -- we cannot agree

 8 with some people, what they're saying, and we can't

 9 agree with them, even development.

10   We really need to get this out, and sort

11 some so also our future kids would be safe from all

12 harm, relate to some concern that -- that tells us

13 straight. We know that there's some other mine that --

14 in our area. Some of the abandoned mine that -- that

15 we never talk about. We as a community of Dettah, we

16 know that we can't have drinking water -- we can't go

17 to the shore and get a pail of water, and drink from

18 it.

19   And so -- so this is forty (40) years

20 we're using other plants, and we don't get free water.

21 And nothing of benefit from government that we're

22 getting anything. We don't go to other places and

23 destroy other people's area. And here's all kinds of

24 living things on the earth, and there's all kinds of

25 metals that comes out of that ore, and there's all

 1 kinds of rock.

 2   And everything that living in the water,

 3 it's very important. Once there's been damage been

 4 done, there would be nothing -- nothing in the water.

 5 How can we get things back in place. All the things

 6 that we have concern, the land, animals, there's all

 7 kinds of animal. We still have respect for the plants,

 8 of the growing trees and all the grass that grows on

 9 the land.

10   How they can be refixed. And one (1) of

11 the lady speaker yesterday, in some other country,

12 there was -- there was a mine, he had -- she had said,

13 and they just left that mine like that. And -- and

14 they're -- they just left it.

15   We as Elder here, this is a real concern

16 to us. We don't want to be treated like that. We want

17 to get everything as -- as it once. That's very

18 important for us, so we want to work with people that

19 working on this development, which the good -- we have

20 to try agree. Disagree is not good. It's not going to

21 get anything done. But who is ever land is that, they

22 have to agree and work forward to accomplish something

23 that be good for the human environment.

24   Even non-Aboriginal people around here,

25 that they use that place. They have to have respect.

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 1 We as a group we have to work well together to -- and

 2 all the tailing that we're talking about, and it's not

 3 safe. So all the tailing, all the machine that's been

 4 working with, and all the pond that's -- that's -- that

 5 grows to the pond.

 6   All the rocks, all the dirty rocks that

 7 we have concern of. We don't want a big damage to be

 8 done to our land. It's not for us what we're talking.

 9 We're taking for the future of the -- our kids. And

10 even non-Aboriginal people that lives around here, they

11 have kids and they have grandkids, and some of them

12 they going to be living here for a long time to come.

13 So this is a -- this is a -- really concern to us.

14   I'm eighty-seven (87) years old, and the

15 Elders here is about ninety-nine (99) years old, and

16 he's older than me. We're Elders. There's not much

17 Elders in the community. I think some of them Elders,

18 they're over eighty (80). So there's a few of us,

19 maybe about ten (10) of us that are over eighty (80).

20   So -- so all that water, we're very

21 concerned about the water. So that before the Baker

22 Creek we used to go out there and get -- gather woods,

23 and we used to set up camps over there. And that -- at

24 that time they say the snow that we use and the water

25 we use that they didn't say it was no good at that

1 time. Everything was good at one time.

2   And all those old buildings, how it's

3 going to be put down and where they're going to leave

4 it at? They're going to cover it? And we don't want

5 them to burn them. And the air travels long ways, so

6 we need to be careful how they're going to -- how the

7 mines, all the storage place, where are they going to

8 store everything? It's going to be covered -- it's

9 going to be covered? Or -- so we -- we're kind of

10 worried about the air quality as well.

11   We need some kind of conversation that -

12 - that been damage that's been done to our people. And

13 we're going to have a public meeting this evening. And

14 I don't have any kind of paper or any notes in front of

15 me. But I have in mind of what my concerns are. And

16 we'll have another evening session, so we'll have

17 another -- some more things to say.

18   I'm an old timer. In 1930 there was no

19 -- no people, no radio, no TV, no doctors at that time.

20 A number of those things. But we have more Elder --

21 elderly man here, he has a know -- he knows a lot of --

22 a lot of knowledge that he will speak to you guys.

23

24   (INTERPRETATION CONCLUDED)

25

 1   (INTERPRETATION FROM TLICHO INTO ENGLISH)

 2

 3   ELDER MICHELE PAPER: I'll be speaking

 4 to you today. I'm Michele Paper, this is my land.

 5 1939 -- 1919 I was born. As an Elder the Elders that

 6 came before me they lived a beautiful life, and that's

 7 how we lived on the land.

 8   They -- our ancestors post-Hudson Bay,

 9 we had no ammunition, we had no axe, and there was no

10 knife and there was no matches to make fire. And there

11 was nothing that came from the white man. We had

12 nothing that existed in this and that's how the -- our

13 ancestors lived on this land and we pass on that

14 tradition.

15   And you have no ancestors on this land,

16 but I know a lot of -- as my grandpa and my aunties,

17 they talk about -- they talk about pass on the legends

18 that comes from thousands of years. And as for today,

19 and as for our ancestors, and they never pay for any

20 woods. And they don't pay for any meat.

21   With everything prior to Hudson's Bay

22 coming here, they live off the land, so they were

23 healthy and there was no -- and there's not very many

24 people that die off. As my grandpa was telling me --

25 as my grandpa was telling me stories, Elder would live

1 for three hundred (300) years. But today, we're just

2 like animals because we consume animal meat, and that's

3 what my grandpa was telling me.

4   And as today, I am ninety-nine (99)

5 years old, and I'm still healthy. And as my grandpa

6 was telling me, this -- there's lots -- many stories

7 that I know. And if I tell you all these stories it's

8 going to take a long time.

9   Just Yellowknife Bay, when I was a young

10 boy, this -- the Yellowknife Bay used to be full of

11 caribou. And -- and it was like the caribou was

12 playing with the people, there was so many of them.

13   So if we -- if we take care of caribou

14 and respect the caribou, and it's like repopulation.

15 Just that's the way it -- we exist amongst the animal.

16 There's many things on this earth. There's all

17 different species of wildlife and, also, many species

18 of fish that regenerate, and that's how we exist. But

19 today, it seems like we're -- there's -- there's

20 wildlife, waterfowl and ptarmigans. There's lists and

21 lists, and we -- the population seems to decrease.

22   All these animals out on the land, they

23 repopulate. And -- and in the past, there was a leader

24 of the pack, you know, wolf -- and the wolf pack, the

25 leader of the pack would communicate with the caribou

 1 from this day forward. And it would communicate with

 2 the leader of the caribou, and also the wolf.

 3   And the caribou responded to the leader

 4 of the -- you -- you live off the water. And, also,

 5 the -- how the humans feed off the meat, was still

 6 continued to do that. So -- and as for today, there's

 7 less population of caribou today and there's less and

 8 less wildlife in this area.

 9   And today we ri -- re -- rely on the

10 White man way of life, and we're afraid of consuming

11 any fish or the water. And -- and the mine itself,

12 it's very devastating. That's how we live today in

13 this area.

14   But what can we do that will best fit.

15 It's -- it's up to the engineer and the scientists that

16 will need to -- they have the knowledge to remediate.

17 I have many stories I can -- and that's the way it is.

18   And when Virgin Mary, Jesus was born,

19 the three kings visited Jesus in the manger and they

20 presented the baby Jesus three (3) gifts. The three

21 (3) kings presented the baby Jesus with three (3)

22 gifts. And whatever you want to accomplish on this

23 land you will receive, that's what -- but they won't be

24 able to make human -- and you -- you won't be able to

25 make it human and make it breathe, but we can make

 1 anything else on this earth. And that's the kind of

 2 gifts that was presented to the three (3) kings -- that

 3 were presented to baby Jesus.

 4   If I explain everything to you today

 5 then Jesus our creator -- and even I pray to Jesus on a

 6 daily brasis -- daily basis. When a person approaches

 7 me or a child approaches me I give them good advice and

 8 that's how I live on this land.

 9   When we -- when we help each other, when

10 we share our stories and teach one another and share

11 our knowledge, that's what Jesus provides for us. And

12 all the leaders and -- and all the leaders around this

13 table is very -- were very important and all the

14 leaders and the chiefs is -- they are very important.

15 They -- they're -- it's like they're leading us.

16   And as I stated my age -- Giant Mine --

17 Baker Creek when I was a young man I used to use canoe

18 along the Baker Creek from Dettah and also -- and

19 there's a -- there used to be an island way up on the -

20 - picking berries within that area and there's many of

21 blueberries and we would sit in it and gather fish and

22 cook fish in that area.

23   That's what I did when I was a young boy

24 and also at the Baker -- mentioned an old lady that

25 was -- maybe she picked up a rock and when we came back

 1 in Dettah she put it on the win -- beside a window.

 2 And when the two (2) prospector came to Dettah and --

 3 and when they approached the old lady they shake the

 4 old lady's hand.

 5   I didn't understand any English. And

 6 that old lady's granddaughter kind of understood

 7 English and then Elder Liza (phonetic), Why you looking

 8 at this rock for. And that her daughter said, Why you

 9 looking at this rock for, and this -- this rock is --

10 looks beautiful. It looks beautiful.

11   And if he likes that rock maybe he can

12 give me two (2) pipe -- stovepipe and one (1) of them -

13 - one (1) of them that's straight and one (1) of the

14 ones that is kind of curved, give me those then. What

15 the stovepipe, and where do you get those stovepipe

16 from.

17   And the -- and the rock that he found,

18 it was around that area, Giant Mine. And that --

19 that's how that gold was found. And what did she get

20 back in return? And billion -- a million dollars has

21 been took out from underground. And we as a Dene

22 people, we're still suffering from this, and the money

23 that being shipped down. And we're still pitiful in

24 the community. We're still hurting.

25   People are -- that suffering today, they

1 will never be healthy again. And that we need some

2 kind of benefit. People have their needs -- that be

3 helped. And I'm glad I come to -- to speak my concern,

4 but there's more stories that I got, but I'm thankful

5 that -- sitting up here, and I been thinking about this

6 for a long time, and I have worked with a lot of other

7 people.

8   1934, and Bearwash (phonetic), that's

9 the first job that I got. I was working for twenty-

10 five cents ($.25) an hour labour. I work eight (8)

11 hours, and maybe I'd make two dollars ($2) in eight (8)

12 hours.

13   And I work at the mine, and I was laid

14 off for the winter. And I -- and after I got a job at

15 Giant Mine. And everybody was saying -- and there was

16 even five dollars ($5). That was a lot for people at

17 that time. And I had to work at the Giant Mine for

18 three (3) years, and I was a younger kid. And I never

19 seen a shovel, and I was working with a shovel, and I

20 didn't like that, doing the shovelling.

21   And I moved -- and I went down to Negus

22 and I -- after that I was struggling for another three

23 (3) years, and -- and I went to Negus Mine after Con

24 Mine. And after the mine was closed at Negus, and

25 after that I -- I was working with RCMP with dog teams,

1 and I had worked with RCMP for a couple of years.

2   Then I worked -- and after that I

3 started working with the Department of Highway for

4 twenty-six (26) years doing surveying, and this was --

5 was my job. And today got -- I -- I got a chance to

6 speak. A lot of things that people don't understand

7 that I'm speaking now. And we're trying to consult and

8 say a lot of good things to each other.

9   We as a Dene people -- people love their

10 kids and their grandkids. And talking about Giant Mine

11 and the arsenic that's been stored, and that -- all

12 that arsenic that goes up in the -- people, they use to

13 fix them and try to clean it up. And then once you're

14 -- you -- you shovel everything goes up in -- in the

15 air, maybe you breath from it, and it does some burns.

16   And the air quality, sometime the -- the

17 wind can blow for thirty (30) miles of air dust up.

18 And the arsenic at Giant Mine, and development, and

19 people that had worked there, they had to work hard,

20 and all the Giant Mine workers.

21   Some day the earth was shake, a lot of

22 things is happening. The climate change. There's a

23 flood. And -- and earthquake. It might get here some

24 day. And once that earthquake, everything will break.

25 And maybe at that time when it gets here it'll be too

 1 late for the people here and for our kids. So even we

 2 love our little ones, once they die what we're going to

 3 do with them? So before that happens we try to put

 4 things together.

 5   So discuss this fairly, in a good way.

 6 We're not talking for the today, we're talking for the

 7 next generation and generation after that, how we can

 8 get things done. Even you as a people, Dene people and

 9 non-aboriginal people will be happy living in this area

10 for a long time.

11   There's a lot of good stories that I

12 have. Once somebody records me, and I even happy with

13 that. Even after I'm gone they can still use my

14 knowledge and pass that on. And thank you very much.

15

16   (INTERPRETATION CONCLUDED)

17

18   MR. RANDY FREEMAN: Sorry about that.

19 I just want you to keep in perspective that both of

20 these Elders were here long before the very first

21 prospectors came along. Isadore would have been, I

22 think, in his early teens. But Michele was a young man

23 when the very, very first prospectors came into

24 Yellowknife Bay.

25   So take -- you know, understanding that

 1 is -- is just mind boggling to realize that there's --

 2 there are still people that remember this bay from

 3 before Giant Mine. Thank you very much.

 4   THE CHAIRPERSON: Thank you. We'll

 5 take a ten (10) minute break.

 6

 7 --- Upon recessing at 2:53 p.m.

 8 --- Upon resuming at 3:08 p.m.

 9

10   THE CHAIRPERSON: Okay, thank you. Can

11 we get everybody to come in? We'll -- I'm going to

12 start right now. Maybe while people are coming in, I

13 want to ask the teacher to come up to the podium up

14 here and just introduce yourself, and the school and

15 the students as well.

16   MS. CHRISTINA SILZER: Hello, everyone.

17 My name is Christina Silzer. I'm a teacher at Ecole

18 St. Patrick High School. And I have a group of

19 wonderful grade 12 students here, so a just a nod out

20 to them. They are the future generation of Yellowknife

21 in the Northwest Territories and are certainly very

22 interested in what's going on here in these

23 proceedings.

24   I have Devon Allulu (phonetic), Jenny

25 Mayorta (phonetic), Alex McIsaac (phonetic), Austin

1 Miller (phonetic), Terra Stocktin (phonetic), Anna

2 Struvic (phonetic), and Shania Thompson (phonetic).

3 Thank you.

4   THE CHAIRPERSON: Thank you. I just

5 want to welcome you guys. Okay, thank you. I'm going

6 to -- without going to questions right now, I'm going

7 to ask Alternatives North and then North Slave Metis.

8 Then I'll go to one (1) set of questions for everybody.

9 And then the people that have questions, we could point

10 them out.

11   So, Mr. O'Reilly, I got you for fifteen

12 (15) minutes.

13   MR. KEVIN O'REILLY: Thanks, Mr. Chair.

14 It's Kevin O'Reilly, with Alternatives North. Sorry.

15 I neglected to get the presentation up. It'll just

16 take a second.

17   THE CHAIRPERSON: How come you guys

18 don't have support staff like those guys over there?

19 Can we take over Ricky there and put him on your side

20 over there? Oh, that's right, you didn't get enough

21 funding. Okay.

22

23 POSITION PRESENTATION BY ALTERNATIVES NORTH - SURFACE

24 REMEDIATION:

25   MR. KEVIN O'REILLY: Thanks, Mr. Chair.

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1 Kevin O'Reilly, with Alternatives North. So this is

2 the areas that I'd like to try to cover in my

3 presentation today: a number of concerns about surface

4 remediation; we think that there's a number of

5 unresolved issues revolving around cover design and

6 performance, air quality and the roaster demolition.

7   We think this is an important area for

8 you to consider, because we're dealing with tailings

9 ponds, air quality impacts from the windblown tailings

10 at the site and certainly during construction. I'll

11 talk a little bit later about the demolition of the

12 roaster complex.

13   And I think it's clear to -- from the

14 discussion that's happened here today that the

15 alternatives for carrying out some of this work are

16 still in the design phase. There's no plans for some

17 of this work that we can see. Performance measures or

18 contingencies perhaps in place are still being worked

19 out and that the impact predictions are not terribly

20 well detailed or well supported, in our view.

21   So I want to talk a little bit about

22 cover design and performance. We raised questions and

23 issues around the design of the cover and its

24 performance at the October 2011 technical sessions and

25 in -- in Information Requests, actually, before that.

 1   We do know that the Developer has

 2 contracted for two (2) test pads in the northwest

 3 tailings pond in 2007, and the purpose of that work, as

 4 -- as I think we've come to understand, is to really

 5 look at what happens when you put something on top of

 6 the tailings, and if it's going to sink in, what the

 7 temperatures going to be and the moisture content of

 8 that.

 9   So we have data from that work up to

10 2010. One (1) of the two (2) that -- one (1) -- so

11 there's two (2) test pads out there; one (1) of them is

12 actually submerged and really of limited value. The

13 cover design work is clearly not finished.

14   They've started to do a little bit of

15 work, or some preliminary work on revegetation, and we

16 don't really have any performance criteria developed

17 yet. They said, We're going to get to that through the

18 environmental management working group, but nothing in

19 place yet.

20   So this is a couple of photos that I'd

21 taken of the test pads. This one here is from

22 September of 2010. There's the two (2) test pads

23 there. The water is sort of around them. Here is in

24 June of this year, and that red line is actually where

25 the second one is, and it's completely under water.

 1   The -- it's not clear to us what the

 2 purpose of the -- the cover is beyond perhaps trying to

 3 control dust. But is the -- is the cover really to

 4 retain water? Is it to -- to try to make everything

 5 run off? They've -- it's not clear to us what --

 6 whether they're all going to be revegetated or not,

 7 what plants are going to be put on there. Will the

 8 plants take up material, or will the roots penetrate

 9 down into the tailings?

10   It's just not clear to us how all of

11 that is going to work. So we have some concerns around

12 the long-term performance of the tailings cover, and

13 we're not sure whether this -- how quickly this is

14 going to happen and how well it may control dust.

15   So I think it's -- from our perspective,

16 there's still significant public concern around the

17 cover design, and perhaps potential for significant

18 adverse environmental impacts, depending on how that

19 cover, when it's designed, will actually perform.

20   So our recommendation to the Developer

21 on this matter was that they should submit the final

22 cover design objectives and performance criteria to the

23 regulatory authorities for approval. The Developer

24 responded and said, Yes, we agree. But we're a little

25 bit concerned with that kind of a response, because

 1 under the Mackenzie Valley Resource Management Act, the

 2 Developer really has three (3) options when it responds

 3 to measures that you may make.

 4   They can either accept them, reject

 5 them, or they can enter into a consult to modify

 6 process. So we're hoping that they actually meant

 7 accept, but it's not clear to us what -- what it really

 8 meant when they said "agree".

 9   We have noticed a trend over the last

10 while where governments have started to say that they

11 only accept the intent of measures that your Board or

12 some others bring forward, which is not the same as

13 what the Act actually requires.

14   So I want to move on though to air

15 quality. We've raised some concerns around how the

16 assessment of risk and potential impacts has been

17 carried out in the Develop -- Developer's assessment

18 report. There are some predictions of air quality

19 contaminants above guidelines in areas that are

20 accessible to the public and -- and by workers at the

21 site.

22   We don't really have any triggers or

23 thresholds for actions or contingencies from the

24 management plans, because they haven't been put

25 together yet. So it's not clear to us how much is too

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1 much of a contaminant, and when we actually and how

2 we're going to measure that, and then what's going to

3 be done about it. When is it too dusty? What level of

4 winds, how much -- is it just something you see, or how

5 do you measure it? Those sorts of things haven't been

6 put in place yet.

7   I'm just going to skip through to the --

8 this slide here, which is number 12 in my presentation.

9 I'm sorry it's not a little bit better. But this is the

10 mine site in here. And this red line that goes like

11 this, this is the area where twenty-four (24) hour

12 arsenic exposure is predicted to be above what, I

13 think, is an Ontario guideline.

14   So I think it -- well, it's our view

15 that there's probably going to be people working in

16 this area during the active remediation. They may be

17 exposed to arsenic that's above this Ontario guideline.

18   So -- and I think we heard Mr. Halbert

19 earlier today say that they have not done an assessment

20 of what may happen to health workers -- or, sorry, wor

21 -- workers on site, in terms of health risks, because

22 they haven't done the assessment of -- of what would

23 happen to them. So that work needs to be finished.

24   And we also are of the view that it

25 might be a good idea to develop specific arsenic air

1 quality guidelines for the Northwest Territories so

2 that we make sure that workers are protected, because

3 that -- the -- the explanation that we had from Mr.

4 Westermann earlier today didn't really convince me that

5 there's some solid plans or guidelines in place to

6 protect workers.

7 So on air quality, we recommended that

8 the Developer prepare an air quality monitoring program

9 to test the performance of tailings covers and that

10 there be thresholds identified and that they be tied to

11 specific actions. We would also add, from our -- what

12 we said in our technical report, that this air quality

13 monitoring program should also cover activities during

14 site construction.

15 The Developer responded by saying that

16 they accepted this recommendation from us, in

17 principle. We're concerned that they didn't actually

18 accept it. They only accepted it in principle. We're

19 not quite sure what that means.

20 I want to move on to the roaster

21 demolition. And why this is an important issue -- and

22 it is clearly within the scope of this environmental

23 assessment. It's covered in the Developer's assessment

24 report - at least mentioned.

25 There's 4,900 cubic metres of arsenic

1 trioxide. And I'm sorry, I can't tell you how much

2 that is. It seems to me like it's a lot. It's

3 probably more than a couple of dump truck full loads --

4 of full. Sorry.

5   My friend with the City tells me that

6 it's about four hundred and nine (409) dump truck loads

7 full of arsenic trioxide inside that complex. Highly

8 contaminated, we need to do that work very carefully.

9 And I think the Developer would like to try to do that

10 as well. But we don't have a plan for how that's going

11 to be done that -- that I'm -- that -- that's been

12 filed on the registry. There's not much details.

13   So I want to talk a little bit about

14 this site stabilization plan that I scrolled through

15 this morning with the big black areas in that. That

16 was approved in November of 2011. It's actually dated

17 October the 14th. That's at exactly the same time that

18 we were in a technical session, talking to the

19 Developer ab -- trying to sort out issues. So while

20 we're talking to the Developer and sorting out issues,

21 this plan is being put on the Minister's desk to

22 basically speed up a number of the -- the parts of this

23 project, at least in our -- in our view.

24   We asked for the -- the document several

25 times. We even asked for it under Federal Accessed

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1 Information and got a bunch of blank pages. But we

2 finally got it in August with those black parts in it.

3 And I don't they -- those black dots, at least when I

4 read it, there's a number even in the conclusion

5 section. I'm not sure, or convinced, that it's all

6 about the costs. So I don't know what else is in

7 there, but it does cause us some concern.

8   I did want to put on the record that we

9 respectfully disagree with Ms. Potter's assessment that

10 the site stabilization plan is outside the scope of

11 this environmental assessment. If you look at that

12 plan, it talks about risks at the site, priorities, and

13 how they should be dealt with in the short term. It's

14 clearly within the -- the matters in there are clearly

15 within the scope of this environmental assessment.

16   Now in that pla -- in that plan, they

17 committed to early and ongoing engagement and dialogue.

18 That didn't happen. I don't know why not. In our

19 humble opinion, they never asked to meet with us about

20 it, or any of the other parties, that I'm aware of.

21   They did have a public meeting in May

22 and this was floated around. That public meeting,

23 there was three (3) days' notice in a advertisement in

24 the local paper. And I -- I'll just leave that at that

25 for now.

202

1   I want to make it clear though that we

2 do not object to any legitimate work that needs to be

3 done at the site on an emergency basis as long as it's

4 communicated clearly to people. And taking down the

5 roaster complex flues that are -- these pieces on the

6 outside that are full and starting to look a bit shaky,

7 take those down. Please, do it now. But the entire

8 complex without a plan, without talking to people about

9 how you're going to do it, in our view, is not a good

10 idea.

11   We are aware that the Developer wants to

12 push ahead with this demolition and they're -- they

13 want to do it rather quickly. And while we were at a

14 break here, I actually went on the MERX website, which

15 is the -- the contracting website. There's a con -- a

16 tender now open with Public Works and government

17 services to take this roaster complex down. That

18 tender opened on August the 24th, it closes on October

19 the 3rd, and the work is to awarded on -- in January of

20 2013.

21   So while we're here talking about this,

22 I'm sorry, the Developer is going around and looking at

23 starting to do it before this environmental assessmenis

24 even finished. And that's, I think, really what this

25 site stabilization plan, in our humble opinion, was

203

1 really about, was fast-tracking a lot of this work

2 while the environmental assessment was going on and

3 under -- and in my opinion, undermining your authority

4 as a Review Board and this process. And I -- I'm not

5 going to ascribe any motives to that or whatever, but

6 that's how it looks to us.

7   So in our view, the roaster demolition,

8 we're, I guess, not quite convinced that this is an

9 emergency situation. And if it is, we'd like to see

10 engineered -- engineering reports that are stamped,

11 that are actually based on site visits and -- and full

12 assessments of what -- what's happening at the site.

13 And I don't think that's we -- what we have before the

14 Review Board at this point for the roaster.

15   The -- the Developer also has to have

16 the ability or capacity to carry out the work in a

17 timely fashion. And we heard from Public Works and

18 Government Services Canada, they're going the regular

19 contracting route, not the emergency one. So we're not

20 convinced it's an emergency right now.   And the last

21 point there about this starting to be contracted, I --

22 I confirmed that on the MIRKS website today.

23   So we are very concerned that the

24 Developer is probably going -- may try to exempt the

25 roaster demolition from the environmental assessment

1 while we're doing this work and trying to get it

2 finished. And -- but we do ask the Review Board that

3 if they attempt to that, that you exercise your -- your

4 jurisdiction in this area and ask them for proper

5 evidence that it's an emergency, that they have the --

6 the demonstrated capability and capacity to carry out

7 the work in a timely fashion, and that you seek a

8 commitment that any environmental assessment measures

9 will be applied to any exempted work in a retroactive

10 fashion.

11   And I asked the question; they were

12 rather vague about how they might do -- consider your

13 recommendations. But thank you very much for you

14 attention.

15   THE CHAIRPERSON: Thank you, Kevin

16 O'Reilly for your presentation. I'm going to go to

17 North Slave Metis Alliance. They've got five (5)

18 minutes for their presentation.

19

20 PRESENTATION BY NSMA - SURFACE REMEDIATION:

21   MS. SUSAN ENGE: Thank you, Mr. Chair,

22 Susan Enge, Metis Alliance. Thank you for the

23 opportunity to speak on the issue of surface

24 remediation.

25   The North Slave Metis Alliance is very

 1 concerned about the Developer's remediation proposal

 2 regarding surface remediation and its possible effect

 3 on the health and safety of the North Slave Metis

 4 people, including Yellowknives, Yellowknifers, and

 5 Northerners.

 6   The Yellowknife River, Yellowknife Bay,

 7 and Giant Mine site have been occupied by the North

 8 Slave Metis for more than two hundred (200) years, long

 9 before the Government of Canada implemented effective

10 control over the area.

11   And this region has great historical,

12 cultural, ecological, and economical value to the

13 Metis, the North Slave Metis. The land was used for

14 fishing, hunting, gathering, and trapping, as well as a

15 meeting place, transportation hub, and commercial

16 centre.

17   And the North Slave Metis Alliance

18 represent Section 35 of Aboriginal rights-bearing Metis

19 -- and I know I've said that a few time -- of the Great

20 Slave Lake area and has a vested interest in protecting

21 our traditional lands so that we can continue to

22 exercise our Metis Aboriginal rights for generations to

23 come.

24   With that in mind, as stewards of our

25 traditional lands we cannot help but be extremely

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1 uncomfortable with the Developer's proposal to seal the

2 arsenic trioxide residue on our lands instead of

3 removing it.

4   It's preposterous to think that we

5 should feel safe knowing that a toxic creature lurks 2

6 metres below a surface cap of gravel. And we all know

7 that erosion eventually can take down mountains, never

8 mind 2 metres of gravel.

9   We must, once again, point out here that

10 the North Slave Metis people are Aboriginal rights

11 holders, which means the Developer, in its capacity as

12 the Crown, is required by law to consult and, if need

13 be, accommodate the North Slave Metis people from --

14 from harm or infringements of their rights.

15   In this instance, the Developer did not

16 undertake its legal obligations to adequately consult

17 the NSMA, as the Developer did not afford the Metis --

18 the North Slave Metis people the same degree of

19 consultation as they afforded our First Nation

20 counterparts.

21   One important example I can point to in

22 this regard is that the Developer saw fit to provide

23 the Yellowknives Dene First Nation people with a

24 community consultation, but not so for the North Slave

25 Metis people. Consequently, the Developer did not

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1 obtain feedback from us, which, in our view is a

2 significant shortcoming in the Developer's proposal

3 amongst the many shortcomings that have thus far come

4 to light during this hearing.

5   Notwithstanding our preference for

6 complete removal of the contaminated surface soil, the

7 NSMA prefers a limit of acceptable change framework

8 when it comes to surface remediation. The framework

9 should be based on cultural preferences and financial

10 considerations as well as toxicological information and

11 aesthetics.

12   We consider natural, pre-impact

13 conditions as baseline conditions to be the default

14 site-specific remediation objectives. And we assert

15 that any change from this baseline standard requires

16 the Developer to undertake an adequate consultation and

17 accommodation process with the North Slave Metis

18 people.

19   In conclusion, we are of the view that

20 the negative effects of the arsenic trioxide on the

21 North Slave Metis people traditional land use area is

22 much greater a scope than the Developer has calculated.

23 The North Slave Metis Alliance has objected and

24 continues to object to the restrictive scope of this

25 environmental review, as it fails to consider past

1 environmental damage, human and ecological, as part of

2 the ongoing and cumulative effects of the project.

3   That said, we recommend the following:

4 1) The Developer should consult and accommodate the

5 affected Metis Section 35 Aboriginal rights holders in

6 this region. This would be undertaken in accordance

7 with limits to an acceptable change framework. In

8 addition, social, cultural, and economic considerations

9 should be considered, including reasonable compensation

10 for substantial alterations to our traditional land

11 use.

12   We -- just to shorten this, because I

13 would like my Elder to say a few words. AANDC should

14 be required to fund an independent monitoring agency

15 for the Giant Mine project. The Developer must be

16 required to adhere to regulatory binding measures. And

17 we would like to see the surface arsenic trioxide be

18 removed instead of being sealed in perpetuity.

19   ELDER ED JONES: Ed Jones here. Thank

20 you. I just want to say a few words. It's unfortunate

21 that Giant Mine didn't choose to burn off the arsenic

22 in the roaster that they had. And also, I believe that

23 the final solution to the problems here at Giant should

24 be the removal of all that arsenic to a hazardous

25 materials disposal site at Swan Hills, Alberta. This

 1 would eliminate all the problems. Thank you.

 2   THE CHAIRPERSON: Okay, thank you.

 3 Before I go to my questions, I'm going to -- you know,

 4 I'm just a little concerned about, again, the political

 5 posturing that's happening here. I'm going to read

 6 this out for the record:

 7   "The -- the Review Board recognizes

 8   that the North Slave Metis Alliance

 9   would like the -- the same treatment

10   as -- as any other Aboriginal groups

11   involved in this process. Your

12   opening comments have made a very --

13   made that sufficiently clear. For

14   this hearing to be fair and

15   effective, we have to keep the

16   questions focussed on the substantial

17   issues of this assessment. I

18   respectfully instruct you to do so.

19   Please keep your questions on concise

20   as possible and refrain from

21   repeating the political issues you

22   have already brought up to the

23   Board's attention.

24   "So -- also, parties that have been

25   actively involved in this assessment

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 1   throughout understand that the

 2   answers here to your questions are

 3   already widely available on the

 4   public record. Parties had many

 5   opportunities to raise basic

 6   technical questions."

 7   Okay, so anyways, I'm just going to

 8 leave that there. But I just wanted to point that out.

 9 There's really no need to get into the political

10 posturing. So I want to leave it there. So I just

11 wanted to point that out.

12   I'm going to go to -- in the order,

13 Environment Canada. Is there any questions for the

14 Yellowknives Dene First Nation, Alternatives North, or

15 North Slave Metis Alliance on -- in their presentation?

16

17 QUESTION PERIOD:

18   MS. AMY SPARKS: Thank you, Mr. Chair.

19 Amy Sparks, Environment Canada. We have no questions

20 for the parties. Thank you.

21   THE CHAIRPERSON: Thank you.

22 Department of Fisheries and Oceans?

23   MS. BEV ROSS: Thank you, Mr. Chair.

24 Bev Ross, Department of Fisheries and Oceans. We have

25 no questions for any of the parties.

 1   THE CHAIRPERSON: Okay, thank you. I'm

 2 going to go to Board technical advisers.

 3   MR. ALAN EHRLICH: Mr. Chair, neither

 4 the Board technical advisers, Board staff, nor Board

 5 counsel have any questions for the previous two (2)

 6 parties.

 7   THE CHAIRPERSON: Board staff or

 8 counsel, no questions? Okay. I'm going to go to Board

 9 members. I'm going to go to my far left. John

10 Curran...?

11   MR. JOHN CURRAN: Thank you, Mr.

12 Chairman. I'd like to thank Mr. Paper, Mr. Simon

13 (phonetic), and Mr. Jones for sharing their knowledge

14 with us. It will -- your -- your wisdom will guide

15 this Board as we make our deliberations moving forward,

16 definitely.

17   I do have one (1) question for Todd

18 Slack. You raised the issue of socioeconomic concerns.

19 And you said that to compensate the YK Dene, the

20 Developer should be building a water line for the City.

21   And I'm just wondering if contract

22 opportunities for YK Dene might not be a better way to

23 compensate the YK Dene? Thank you.

24   THE CHAIRPERSON: Thank you. Thank

25 you, John Curran. I want to go to YKDFN.

1   MR. TODD SLACK: Thanks, Mr. Chair.

2 And thanks for the question, Mr. Curran. Yes -- no, I

3 -- I fully agree that socioeconomic activity -- or,

4 contracts and opportunities are going to be part of the

5 solution, in terms of making this project tolerable to

6 the First Nation.

7   The point that I was trying to get at

8 with regards to the -- the waterline in particular, and

9 I apologize for not making it clear enough, is that

10 that particular issue is a -- a future potential impact

11 directly related to this project.

12   The Elders have con -- repeatedly told

13 us about how they're not happy because of the fact that

14 they used to -- the lake used to be good water and they

15 could just go down and access it and drink water that

16 way. And now they have to pay every time they want

17 water.

18   So the project has stated that they will

19 not pay for this pipeline. That cost has to be carried

20 on in some way. And the City has indicated that --

21 their study, sorry, has indicated that putting that

22 intake in Back Bay or in Yellowknife Bay, there's not

23 enough source water protection.

24   So that cost is going to be carried by

25 someone, as both N'Dilo and Dettah access the current

1 water structures, mostly the pump house over by the

2 river. The Elders are going to pay even more for

3 water. The citizens and the members of the

4 Yellowknives are going to pay more for water. And that

5 will perpetuate the impacts that the -- the First

6 Nation members have felt. I hope that clears it up.

7   THE CHAIRPERSON: Thank you. John

8 Curran...?

9   MR. JOHN CURRAN: Still having a hard

10 time understanding what hat you're wearing, but we'll

11 chalk it up to enthusiasm. No other questions right

12 now, Mr. Chairman.

13   THE CHAIRPERSON: Percy Hardisty...?

14   MR. PERCY HARDISTY: Mahsi, Mr. Chair.

15 I don't have any.

16   THE CHAIRPERSON: Okay. James Wah-

17 shee, any questions for YKDFN, Alternatives North, or

18 North Slave Metis on their presentation?

19   MR. JAMES WAH-SHEE: Thank you, Mr.

20 Chairman. Mahsi.

21

22   (INTERPRETED FROM TLICHO TO ENGLISH)

23

24   MR. JAMES WAH-SHEE: Michele Paper and

25 Isidore have spoken to us. The two (2) of the Elders

1 that -- right now we're sitting on the table. We have

2 heard their concern. That's why we are sitting on this

3 table.

4   And it is their land. Back in the 1930s

5 they built that mine on your -- on your land.

6 Therefore, when they built that mine, for that reason

7 your land and your water has -- has been damaged, has

8 been destroyed. And we want to know what -- what

9 happened in the past and at this presently.

10   Right now the mine has closed, but your

11 land, as to clean up the mine site the water, right now

12 they -- they're going to do remediation work on the

13 mine site. And also you -- you spoke to us about the

14 fish, and we really appreciate that and all that

15 information that you shared.

16   It is good for us to know all that

17 information so -- with that information we can make a

18 decision. How you used to live on your land prior to

19 building that mine on your area, all that land, that

20 water, used to use the land, the water, the animal.

21 Everything around that area you use to -- right now,

22 the -- the mine has closed.

23   What would be best solution to -- to

24 work on the remediation project? Therefore, the mine -

25 - the land the -- the mine was built on, to restore

1 everything. Right now, today, we want everything to be

2 -- the -- we want them to do a thorough cleanup.

3 That's what we're hoping for.

4   That's why all that information that you

5 have shared with us -- through your information, we

6 really are grateful that you shared with us. With that

7 information, just like you're teaching us, you're

8 educating us. With your information, we're so grateful

9 for sharing that knowledge with us.

10

11   (INTERPRETATION CONCLUDED)

12

13   MR. JAMES WAH-SHEE: So with that, I'd

14 just like to say I'd like to thank the Yellowknife

15 Elders and others for their presentations, and also the

16 North Slave Metis for their presentation. And we

17 mustn't forget Alternatives North. They're a little

18 more technical with their expertise.

19   But I just want to say that I think

20 these presentations are really good. They give us a --

21 a new perspective, and it's a comment on my part, just

22 to express my appreciation. Thank you very much.

23   THE CHAIRPERSON: Thank you, James Wah-

24 Shee. Board member Richard Mercredi...?

25   MR. RICHARD MERCREDI: Thank you, Mr.

 1 Chair. I'd just like to thank the presenters, all of

 2 them, as well as the Elders today here. I appreciate

 3 your comments, but I have no comments at this time.

 4 Thank you.

 5   THE CHAIRPERSON: Thank you. Rachel

 6 Crapeau...?

 7

 8   (TRANSLATED FROM TLICHO TO ENGLISH)

 9

10   MS. RACHEL CRAPEAU: I wanted -- and

11 through your information, we will make a sound

12 decision. And then we will make a decision through

13 your knowledge, through people's information. It is --

14 through your information, we want to make decision.

15   Long time ago, people used to live well.

16 They used to have a healthy lifestyle. We really

17 appreciate that we -- we heard all your information,

18 your concern. When we hear information like that about

19 grandmother, grandfather, their parents, how we used to

20 live near the shore, people used to live a healthy

21 lifestyle.

22   I want us to work on this report right

23 away so we can make a decision right away, but -- but

24 we -- we have to work together in order to achieve our

25 goal, to make a sound decision. And we have to think

 1 of ways of -- to go back to living healthy. That's why

 2 we have -- we have to have a strong mind.

 3   And thank you for sharing your -- your

 4 knowledge with us. We heard you clearly.

 5

 6   (INTERPRETATION CONCLUDED)

 7

 8   THE CHAIRPERSON: Mahsi, Rachel

 9 Crapeau. Board member Danny Bayha...?

10   MR. DANNY BAYHA: Thank you, Mr. Chair.

11 And I must say...

12

13   (INTERPRETATION FROM TLICHO TO ENGLISH)

14

15   MR. DANNY BAYHA: Thank you for sharing

16 your stories and talk of the stories of long ago. So I

17 just want to thank you.

18

19   (INTERPRETATION CONCLUDED)

20

21   MR. DANNY BAYHA: ... wisdom so that we

22 can hopefully use a lot of it to make some decisions to

23 the future.

24   And I don't who, maybe Kevin or Todd, or

25 -- I had a question for, like, in your mind and in --

1 from all of your presentations, including the city, we

2 have a -- I -- I'm getting the -- sort of the -- more

3 clear picture. I want it to be very more clear,

4 exactly, what is happening here and about the impacts.

5   And here we have the Developer stating

6 that, We're going to clean this -- all this up and it's

7 good for you. But it seems like there is an issue of

8 communication of how they're going to do it. You

9 haven't -- so it seems that way you haven't been

10 involved in how that's happening.

11   So the fact that you don't know how

12 they're going to do it, how they're going to approach

13 cleaning it up, will -- and you -- so you can't really

14 determine how it can -- really will impact you. So

15 that is a -- am I sort of close to the mark on this,

16 how this is unfolding here? And as -- as this is prese

17 -- more presentations are happening.

18   So I -- I just want to know if, maybe,

19 somebody could care to comment if I'm on the mark,

20 close, off the mark. Thank you.

21   THE CHAIRPERSON: Danny, did you have a

22 -- did you want to direct your question to -- or any

23 one (1) of the three (3)? Or all three (3)? I'll go

24 to Todd, YKDFN.

25   MR. TODD SLACK: Todd Slack,

 1 Yellowknives Dene. Thank you, Mr. Chair, and thanks,

 2 Mr. Bayha. And I -- I hope I answer this question a

 3 little clearer.

 4   I think that the -- the plan itself, the

 5 Yellowknives aren't necessarily against it. They don't

 6 think it's the best option, but there are issues that

 7 are still outstanding -- A) there are issues still

 8 outstanding that don't address their concerns.

 9   The Chief has been very clear, in terms

10 of, maybe this is the best plan for today. But that

11 isn't the sum of this project. This is a project that

12 goes long term, into the future.

13   But the other angle that goes with that

14 is, the project has made many commitments and there are

15 many things that are yet to come. And we'll talk about

16 these objectives and criteria tomorrow or Friday. And

17 the Yellowknives don't feel that just the project

18 saying, Yeah, we'll do that, is necessarily good

19 enough. And that's why we've come to the Review Board

20 and asked for particular measures that address these

21 specific, potentially significant concerns.

22   We want to trust the Developer. And I

23 trust the people that are part of that process. But it

24 is an organization that is not bound to Yellowknifers,

25 and it's not bound to the -- to what these people say.

1 It is not bound to the gov -- the government of the

2 future. They can change their mind at any time. But

3 for this project, that's not good enough. These

4 commitments have to be made, have to be carried out in

5 a binding -- and that requires binding measures.

6   So for today, when we talked about the

7 Baker Creek, one of their primary objectives was to

8 restore this. And we're still not at a position where

9 we can review that plan. Do I believe that they have

10 every intention of restoring Baker Creek? Yes, I do.

11   But that's not good enough to just trust

12 them into the future. And that's where we're hoping

13 the Review Board can provide that comfort. I hope that

14 helps.

15   THE CHAIRPERSON: Thank you. Mr.

16 Bayha...?

17   MR. DANNY BAYHA: Yes, Kevin, if -

18 thank you.

19   THE CHAIRPERSON: Okay, thank you. I

20 just want to thank Alternatives North, YKDFN, North

21 Slave Metis Alliance, and the Elders that have spoken.

22 Thank you very much for your -- your presentation.

23   The next part of the agenda I want to do

24 is I want to go to Ecology North. They've got twenty-

25 five (25) minutes. And then DFO and -- and the City

1 has got fifteen (15) minutes. And then we can do one

2 (1) set of questions for all three (3) as well. So

3 let's do it back to back.

4   MR. ADRIAN PARADIS: Mr. Chair,

5 briefly?

6

7   (BRIEF PAUSE)

8

9   THE CHAIRPERSON: Okay, while we're

10 getting set up here, I believe the Developer had a --

11 would like to have a response for John Curran and I'd

12 like to keep -- keep the questions short. Thank you.

13   MR. ADRIAN PARADIS: Actually, I was

14 kind of -- we were hoping if we could have asked some

15 questions here, but we'd like a few minutes just to

16 caucus beforehand. I can start with a question here

17 quickly, if possible, if Todd is available, if that's

18 allowed. Or is there questions to be done later on?

19   THE CHAIRPERSON: Oh, okay. Sorry.

20 You -- right. I'm sorry, I'm sorry. I thought I did,

21 but must be -- must be really tired. Okay. I think,

22 John...?

23

24   (BRIEF PAUSE)

25

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1   THE CHAIRPERSON: Okay. We're going to

2 go to Developer questions to -- of the three (3)

3 proponents.

4   MR. ADRIAN PARADIS: I -- yeah, there -

5 - I think there's -- there's two (2) things going on.

6 Mr. Nahir has a response to a question that Mr. John

7 Curran has asked previously. I'd like to get -- seek

8 some clarification from some comments that Mr. Slack

9 has mentioned. And also I'd like a brief opportunity

10 to caucus so we can ask a few more questions of both

11 Alternatives North and, I think, YKDFN.

12   THE CHAIRPERSON: Okay. Okay. Let's

13 do the -- we'll do John Curran first, and then your

14 questions.

15   MR. MICHAEL NAHIR: Thank you, Mr. --

16 thank you, Mr. Chair. Mike Nahir. The response to the

17 question of the estimate for our Baker Creek program,

18 as we laid out, is as of -- for 2010 was their most

19 recent estimate, is $18.1 million. Thank you, Mr.

20 Chair.

21   THE CHAIRPERSON: Okay. Is there -- is

22 there any further questions, John Curran?

23   MR. JOHN CURRAN: I'd asked for the

24 opportunity to do follow-up questions.

25   THE CHAIRPERSON: Okay. Can you do --

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1 how many you got there?

2   MR. JOHN CURRAN: I believe I have -- I

3 believe I have one (1) or maybe two (2).

4   THE CHAIRPERSON: Okay. Thank you. Go

5 ahead.

6   MR. JOHN CURRAN: Yes. Now, in either

7 the second or third round of IRs, your team had

8 examined two (2) options for the diversion of Baker

9 Creek. One was a fish-friendly route, valued at

10 approximately $56 million, and one was a more direct

11 route, and although it was too steep for the fish, it

12 would only cost roughly $10 million to construct.

13   Given that the restoration of Baker

14 Creek will never bring it back to a pristine level

15 where people would be able to feel comfortable to eat

16 the fish, it feels like we need another solution.

17   Now, providing it was timed in such a

18 way that it didn't delay the start of actual

19 remediation work at site, would the Developer agree to

20 the following: 1) divert Baker Creek using the direct,

21 non-fish-friendly route; and 2) work with the

22 Yellowknives Dene, NSMA, and DFO to identify another

23 suitable location to invest in creating fish habitat to

24 make up for the loss of Baker Creek?

25   Thank you, Mr. Chairman.

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 1   THE CHAIRPERSON: Thank you, John

 2 Curran. I'll go to the Developer.

 3   MR. MICHAEL NAHIR: Thank you, Mr.

 4 Chair. It's Mike Nahir. That -- that's a -- that's a

 5 -- a very significant question and -- obviously. And

 6 I'd like to take some time to provide a response to you

 7 on that, if you would allow. Thank you, Mr. Chair.

 8   THE CHAIRPERSON: Okay. One (1) -- are

 9 you looking to respond back to that by the end of the

10 day or sometime tomorrow?

11   MR. MICHAEL NAHIR: I -- I can get you

12 an answer as to when I can respond to that within about

13 five (5) minutes.

14   THE CHAIRPERSON: Okay. Thank you.

15 All right. Adrian, I think you had another question

16 for Mr. O'Reilly.

17   MR. ADRIAN PARADIS: Thank you, Mr.

18 Chair. It was for Mr. Slack. Todd had mentioned a --

19 an assessment was done by the City that indicates that

20 there's insufficient source water protection. We're

21 not aware of this assessment.   Is -- was it

22 available? Is it on the registry?

23   THE CHAIRPERSON: Before I go to Todd

24 Slack, if there's any Elders here that want to go to

25 Dettah, the shuttle bus is here to go to Dettah if

225

1 anybody needs a ride. Then the next one's going to be

2 at 5:30.

3   Todd Slack...?

4   MR. TODD SLACK: Thanks, Mr. Chair.

5 And we've got the City guys behind me, and they can

6 provide the exact reference, but I'm reasonably sure

7 that this is on the registry already.

8   And the key finding of this report was

9 that there was insufficient time or opp -- opportunity,

10 were something unforseen, an un -- an unfortunate

11 accident to happen, and that arsenic was leaked into

12 the bay, there wasn't sufficient distance in between

13 the intake, the response time, and the source of the

14 arsenic that would protect the drinking water. And

15 that's the conclusion that I've arrived at.

16   If the Proponent wants further

17 information, I can work with the City guys and get you

18 an answer in the next day or two (2).

19   THE CHAIRPERSON: Okay. Thank you.

20 I'll go back to the Developer.

21   MR. ADRIAN PARADIS: Thank you. That

22 should work. We'd like to take an opportunity, I think

23 just for the sake of time, if I may respectfully

24 suggest that we continue with the presentations.

25 There's some clarifications that we'd like to seek from

1 -- seek from some of the presentations made earlier.

2   But I think for the sake of time, if we

3 just allow the other parties to proceed with their --

4 proceed with their presentations, we can ask -- ask at

5 a later time.

6   THE CHAIRPERSON: Absolutely. I think

7 we could do that. So while you make your notes and con

8 -- and I believe there's some information you're going

9 to provide to us -- to Mr. Curran, so maybe you could

10 work on that as well.

11   And in the meantime, we'll proceed with

12 the -- Ecology North actually has twenty-five (25)

13 minutes. And DFO and the City of Yellowknife, they

14 have fifteen (15). So if we could do it back to back

15 and then we'll go into questions. Thank you.

16

17   (BRIEF PAUSE)

18

19   THE CHAIRPERSON: Sorry, that was

20 Environment Canada. Mr. Donihee...?

21   MR. JOHN DONIHEE: Thank you, Mr.

22 Chairman. It's John Donihee. I just have one (1)

23 housekeeping item.

24   Alternatives North filed a response to

25 the question asked by Mr. Curran yesterday about their

1 -- who it was that they represented. And I know a copy

2 of this has been provided to the Developer.

3   And with your permission, Mr. Chairman,

4 we'll file that as Exhibit 5 for the proceeding.

5   THE CHAIRPERSON: Thank you. And can

6 you also provide one to Mr. Curran? Thank you.

7

8 --- EXHIBIT NO. 5:   Response by Alternatives

9   North regarding question

10   asked by Board member

11   Curran about whom they

12   represent

13

14 PRESENTATION BY ENVIRONMENT CANADA - SURFACE

15 REMEDIATION:

16   MS. AMY SPARKS: Thank you. This is

17 Amy Sparks. And I'm actually with Environment Canada.

18 I didn't just ship to Ecology North.

19   So because we got bumped yesterday I'm

20 going to do our two (2) presentations back to back.

21 And the first one is our recommendations on water and

22 effluent. Anne Wilson was our lead on this and she's

23 provided the following recommendations. However, she's

24 not here today. So if there are questions, we'll do

25 our best to answer them.

228

1   Okay. So as we've heard yesterday and

2 today, if the remediation project moves forward, there

3 will be a new treatment and discharge configuration

4 that pipes the effluent straight into the receiving

5 environment and does not incorporate a polishing pond.

6   The major ion concentrations have not

7 been evaluated for the effluent, and these should be

8 monitored in the mine water in-flows and in the

9 effluent and in the receiving environment to inform

10 adaptive management. Acute toxicity testing should

11 also be completed to allow for the evaluation of the

12 effluent quality.

13   These points led to Environment Canada's

14 recommendation that ammonia, sulphate, and the major

15 ions be measured in influent as well as the effluent

16 and the receiving environment. This is in order to

17 ensure levels are not elevated. There should also be

18 whole effluent acute toxicity testing, and it needs to

19 be done on a higher frequency until the flooding is

20 completed and the effluent quality stabilizes.

21   Based on this recommendation, the

22 Proponent has committed to measuring ammonia, sulphate,

23 and the major ions in the influent and the effluent and

24 the receiving environment.

25   While the mine remains under MMER, the

1 Metal Mining and Effluent Regulations, the frequency of

2 toxicity testing is -- testing is determined through

3 that process, and Environment Canada has no concerns.

4 However, if the mine opts out of MMER and goes for

5 recognized clone -- closed-mine status, in this case

6 the water licence monitoring would be put in place.

7   Environment Canada would then provide

8 input to the regulatory board and would make

9 recommendations respecting the monitoring, frequency,

10 and toxicity testing. An example of this

11 recommendation would be that the whole effluent

12 toxicity testing be done quarterly, with increased

13 frequency to monthly during periods where a change in

14 water quality may be expected -- so, for example,

15 during flooding -- or if a greater than 30 percent

16 mortality is observed in the fish bioassay tests, until

17 the effluent quality stabilizes.

18   Environment Canada's second

19 recommendation in regards to water and effluent is that

20 a full characterization of the diffuser location be

21 done. This would include ongoing measurement of water

22 temperatures, water quality sampling, benthic

23 invertebrate community characterization, and sediment

24 characterization.

25   This information is important to inform

 1 the Proponent of the risks associated with potential

 2 sediment disturbance, as well as provide baseline data

 3 for future comparisons. This recommendation has been

 4 accepted by the Proponent, and they have committed to

 5 undertaking these measures.

 6   Our third recommendation was that the

 7 diffuser stability and performance be monitored -- be

 8 monitored continuously during imi -- initial

 9 commissioning and at a higher frequency during the

10 first year of operation. This recommendation was also

11 accepted by the Proponent.

12

13   (BRIEF PAUSE)

14

15   MS. AMY SPARKS: So the second

16 presentation, which is now all one (1) presentation, is

17 on the following topics that Environment Canada

18 provided recommendations on.

19   So first, the air quality

20 recommendations. And these came from Dave Fox. And

21 Dave, unfortunately, is not with us today, as he is on

22 leave, but he provided our recommendations. We also

23 have wildlife recommendations, and our wildlife expert

24 is James Hodson, who is with us today. And we had

25 recommendations on the tailings cover and the Baker

1 Creek sediment -- sediment remediation, which came from

2 myself.

3   So Environment Canada made a

4 recommendation that the air quality monitoring plan, as

5 described in the SENES 2011 report, be continued for

6 the period during the remediation activities at the

7 Giant Mine site, plus at least one (1) year after the

8 remediation activities are completed.

9   Environment Canada has also recommended

10 that the Proponent develop trigger levels for which

11 dust suppression mitigation strategies are employed.

12 Both of these recommendations were accepted by the

13 Proponent.

14   We've also recommended that continuous

15 ambient monitoring for PM2.5 and NO2 is conducted near

16 the Niven Lake residential area. As we know, the power

17 demand for the Giant Mine project will add to the

18 existing power generation requirements at Jackfish for

19 the city of Yellowknife. And this will account for one

20 ninth (1/9) of the plant's capacity.

21   This will ultimately result in higher

22 emissions -- or, higher ambient concentrations of NO2

23 and PM2.5, and the modelling results indicate these

24 emissions may lead to exceedances of applicable ambient

25 air quality standards in the Niven Lake residential

1 area. It is important that these predictions are

2 verified by conducting ambient air quality monitoring

3 in order for the responsible regulatory authorities to

4 consider options. This recommendation has led to

5 further discussion with the Proponent and the GNWT, and

6 this is ongoing.

7   Environment Canada also provided a

8 number of recommendations, in terms of wildlife at the

9 Giant Mine Remediation Project. The first was that Pro

10 -- the Proponent needed to consult the fact sheet of

11 planning ahead to reduce risks to migratory bird nests.

12 This was accepted by the Proponent.

13   We also recommended that remediation

14 work in known nesting areas be undertaken either

15 before or after the nesting season and that structures

16 with no nests should be taken down either before or

17 after the nesting season. This was also accepted by

18 the Proponent.

19   We further recommended that if other

20 demolition or remediation work occurs during the

21 nesting season, these areas should be inspected for

22 active nests before demolition or remediation work

23 starts.

24   Areas should be thoroughly surveyed for

25 active nests using a scientifically sound approach a

1 maximum of four (4) days before destruction or

2 clearing. Surveys should be carried out by an avian

3 biologist or naturalist with experience with migratory

4 birds and migratory bird behaviour indicative of

5 nesting. This recommendation was accepted by the

6 Proponent.

7   Environment Canada also reme --

8 recommends that if active nests are discovered the

9 Proponent should delay any work in the area until

10 nesting is complete. Nests must be protected by an

11 appropriately-sized buffer.

12   The Proponent has accepted this

13 recommendation, but required some further information.

14 So Environment Canada provided additional information

15 to the proponent regarding set-back distance

16 guidelines.

17   These are the guidelines that

18 Environment Canada has recommended in terms of set-back

19 distance. So for migratory bird nests -- nests and

20 also for species at risk. For birds that aren't listed

21 under the Federal Migratory Birds Convention Act, so,

22 for example, raptors or ravens at the site, the

23 Proponent should consult with the GNWT/ENR for

24 recommended set-backs.

25   In terms of tailings covers, Environment

1 Canada provided two (2) recommendations for the

2 tailings cover at Giant Mine. Environment Canada is

3 recommended that the tailings cover be redesigned to a

4 greater depth to provide greater vegetation support

5 later -- layer so that the cover does not have the

6 potential to be compromised by vegetation growth.

7   Alternatively, we recommend that the

8 tailings cover design, if it proceeds to remain at --

9 at its current planned depth, that evidence need to be

10 provided that the vegetation will not penetrate into

11 the bottom tailings cover layer. A monitoring plan

12 should be put in place to ensure that the tailings

13 cover is performing as per its design specifications

14 and to prove that the vegetation is not infiltrating

15 the cap.

16   The Proponent has responded, indicating

17 that the depth is determined at the final design stage.

18 However, this is an outstanding issue for Environment

19 Canada and further discussion is required.

20   Environment Canada is concerned that the

21 depth that is proposed for the tailings cover will not

22 be sufficient to protect -- protection to the

23 environment with time. Environment Canada would like

24 to see recommendation 11 or, alternatively, as a fall-

25 back, recommendation 12 implemented.

235

 1   Environment Canada is aware that the

 2 tailings cover will be allowed to revegetate using

 3 natural succession. It's -- we are concerned that the

 4 depth that is proposed for the tailings cover will not

 5 be sufficient to provide this protection. There is

 6 potential for the roots to penetrate the cover and

 7 reach the bottom layer and compromise the functions of

 8 the layer.

 9   But there is also the possibility of the

10 roots penetrating the tailings and uptaking metals. If

11 the vegetation has high concentrations of metals, then

12 there's the potential for exposure to wildlife.

13 There's also the potential for water to infiltrate the

14 tailings cap and cause boils or groundwater

15 contamination.

16   In terms of Baker Creek sediment

17 remediation, Environment Canada is aware that all the

18 information is not available at the time to make this

19 decision, so we're recommending that, once that

20 information is available regarding the sediments in

21 Baker Creek, that the selection of remedial options for

22 Reaches 2, 5, and 6 are made with input from all

23 interested parties, including Environment Canada.

24   This was also a recommendation that was

25 accepted by the Proponent and we will be working

1 together with them on this in the future. Thank you.

2   THE CHAIRPERSON: Thank you. I'd like

3 to go to DFO now, if they could do their presentation.

4

5   (BRIEF PAUSE)

6

7 POSITION PRESENTATION BY FISHERIES AND OCEANS CANADA -

8 SURFACE REMEDIATION:

9   MS. BEV ROSS: Thank you, Mr. Chair and

10 Board members. My name's Bev Ross. I'm the regional

11 manager for Environmental Assessment with Fisheries and

12 Oceans Canada, and with me is Morag McPherson, who's a

13 habitat biologist with DFO.

14   Like Environment Canada, we're going to

15 provide our comments on both the diffuser and outfall

16 and Baker Creek flows, the discussion from yesterday,

17 as well as our comments on Baker Creek remediation for

18 today.

19   Just a very quick overview that DFO is

20 participating in the environmental assessment for the

21 Giant Mine remediation project as a regulator for the

22 construction related to Baker Creek, the historic

23 foreshore tailings, and the diffuser and outfall, as

24 well as an expert advisor to the Review Board on

25 potential physical impacts of the development on fish

 1 and fish habitat.

 2   The following technical comments and

 3 recommendations are based upon our departmental mandate

 4 under the Fisheries Act, specifically related to the

 5 management of fish and fish habitat.

 6   DFO is also a science-based, expert

 7 support department within the federal contaminated

 8 sites action plan program. As such, DFO has been

 9 providing project-specific advice to custodians to

10 assist in assessing ecological risks, developing

11 sampling and analysis plans, and evaluating remediation

12 and/or risk management activities.

13   Okay. Since 1983, treated mine effluent

14 from Giant has been discharged to Baker Creek in the

15 summer, causing an increase in flow during these

16 months. As these existing summer conditions in Baker

17 Creek have been artificially maintained by the mine

18 water discharge, there may be some effects to the

19 habitat availability in the summer by removing this

20 additional discharge.

21   The Giant Mine remediation plan proposes

22 to discharge the treated mine water into Back Bay. It

23 is DFO's understanding that the objectives for water

24 treatment are related to improving and upgrading the

25 water treatment plant capabilities, which would

1 eliminate the surface storage of arsenic-contaminated

2 water and allow for water treatment to take place three

3 hundred and sixty-five (365) days a year.

4   By removing the mine water discharge

5 into Baker Creek, lower summer flows may reduce

6 migratory access and habitat availability at various

7 creek locations by lowering the water levels in pools,

8 ponds, and slow-moving wetland areas.

9   This would re -- result in reduced

10 spawning habitat for adult fish, and reduced foraging

11 and rearing habitat for larval and juvenile fish.

12 Reduced summer flow may also affect dissolved oxygen

13 levels and the availability of food resources in the

14 creek.

15   That said, the positive impact of this

16 direct discharge -- of this would be -- the removal of

17 this direct discharge of treated mine water to Baker

18 Creek is that it will return the creek to a more

19 natural flow regime and reduce exposure of aquatic

20 biota to contaminants.

21   The current summer flows, then, are

22 artificially elevated by the annual mine water

23 discharge, and the proposed removal of this discharge

24 will return Baker Creek to its natural hydrologic

25 regime. Therefore, DFO does not consider the removal

 1 of treated mine water discharge into Baker Creek to be

 2 an adverse impact to fish and fish habitat.

 3   DFO recommends that the final designs of

 4 any future Baker Creek channel realignments and in-

 5 stream habitat features be developed with a clear

 6 understanding of the potential seasonal-based flows to

 7 minimize the potential for channel barriers and impacts

 8 to fish passage. The habitat restoration plan and

 9 supporting channel designs would be submitted to DFO

10 for approval as a requirement of the Fisheries Act

11 authorization.

12   With respect to the outfall and the

13 diffuser, DFO has noted that there is a potential for

14 physical changes to fish and fish habitat use

15 associated with the construction of the outfall and

16 diffuser, as well as within the mixing zone of the

17 diffuser.

18   In the Developer's assessment report,

19 the Giant Mine remediation team evaluated the potential

20 environmental im -- effects during the construction

21 phase of the outfall and diffuser, as well as the

22 operation phase of the diffuser.

23   The assessment identified potential

24 effects to surface water and sediment quality due to

25 physical disturbance and mobilization of contaminants,

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1 as well as physical disturbance to the aquatic

2 environment, including sediment, benthic invertebrates

3 -- those critters that are living on the bottom -- and

4 aquatic vegetation.

5   DFO has also noted that there is a

6 potential for physical changes to fish habitat and fish

7 use within the mixing zone of the -- oops, no -- within

8 the mixing zone of the diffuser, which requires further

9 assessment into the future. Based on the existing

10 information, construction and final design of the

11 outfall and diffuser may alter habitat. But additional

12 information is still required in order to make a final

13 determination on the potential impacts from the outfall

14 and diffuser on fish and fish habitat.

15   In terms of the potential impacts of the

16 operation of the diffuser in relation to water quality

17 objectives as noted by Environment Canada, they

18 administer that section of the Fisheries Act that

19 applies to the deposit of deleterious substances. And

20 we defer to their comments on that.

21   Our recommendation, then. DFO does --

22 DFO recommends that the completion of the fish habitat

23 assessment in Yellowknife Bay, along with the proposed

24 route of the outfall and at the location of the

25 diffuser. We understand that this data is currently

1 being collected.

2   DFO recommends the development of an

3 environmental monitoring plan, which outlines the

4 mitigation and monitoring measures for the construction

5 and operation of the proposed outfall and diffuser in

6 Yellowknife Bay to ensure adverse physical impacts to

7 fish and fish habitat are avoided.

8   And, finally, DFO will require the final

9 design and associated mitigation measures for the

10 outfall and diffuser to inform our regulatory review,

11 pursuant to the habitat perfe -- habitat provisions of

12 the Fisheries Act.

13   I'll now move on to our second

14 presentation. With respect to Baker Creek remediation,

15 the proposed remediation activity related to Baker

16 Creek involves realigning portions of the creek to

17 reduce flood risk, improving hydraulic performance,

18 enhancing physical habitat, and managing contaminated

19 sediments.

20   It's our understanding that the creek

21 needs to be stabilized both physically and chemically

22 in order to meet the stated objectives of the

23 remediation plan. Therefore, the impacts from

24 remediation activity to fish and fish habitat within

25 Baker Creek are unavoidable.

1   Baker Creek is currently a functioning

2   fish habitat, and disrupting that function through the

3   remediation activity will be subjected to the Fisheries

4   Act authorization process. Restoration of fish habitat

5   in Baker Creek is not only stated as a goal of the

6   remediation project, but will be a requirement of any

7   Fisheries Act authorization to mitigate and offset fish

8   habitat impacts.

9   It is our understanding and expectation

10 that efforts in the form of a Baker Creek restoration

11 plan will be required to develop, restore, and enhance

12 fish habitat within the remediated portions of the

13 creek channel.

14   Baker Creek runs a total length of

15 approximately 7.2 kilometres, originating at the outlet

16 of Lower Martin Lake and draining into Great Slave Lake

17 at its mouth. Since the realignment of Reach 4 of

18 Baker Creek in 2006, monitoring has been conducted on

19 fish use and habitat within the creek. Arctic grayling

20 spawning habitat enhancements were monitored to

21 evaluate the success of these fish habitat compensation

22 measures, as suitable spawning and rearing habitat.

23 These reports also identified other fish species that

24 migrate into and use the creek in the spring.

25   In 2010, a fish use and habitat survey

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1 was conducted to document seasonal fish use, species

2 composition, life stages, and map fish habitat in

3 Reaches Zero to 6 of Baker Creek, as well as to

4 photograph the creek from Reach Zero to lower Martin

5 Lake. Additional fish monitoring was conducted in the

6 spring of 2011 to determine the state of fish use of

7 habitat in Baker Creek following the spring 2011

8 overflow event.

9   The results of these studies indicate

10 that although portions of Baker Creek have been heavily

11 altered by historic activities, the existing aquatic

12 system has been recovering over time. Reaches Zero to

13 6 provide a variety of habitats for numerous fish

14 species.

15   A total of fourteen (14) species of fish

16 have been captured or observed using portions of Baker

17 Creek on the mine site. Arctic grayling spawning and

18 rearing habitat has been documented in all reaches on

19 the mine site.

20   And I'm just going to show a few

21 pictures of adult fish that migrate into Baker Creek.

22 There's Arctic grayling here, longnose sucker, and

23 white sucker. And I'll go quickly through that. There

24 are also various fish life stages completed within

25 Baker Creek, including spawning, rearing and feeding

1 habitat for Arctic grayling. Arctic grayling spawning

2 and rearing has been documented in six (6) reaches of

3 Baker Creek.

4   In addition to Arctic grayling habitat

5 there are also species that use the creek year round,

6 such as northern pike and nine (9) spined stickleback.

7 As well, Baker Creek is known to provide numerous

8 spawning, rearing, feeding, and overwintering habitat

9 for numerous other fish species, such as lake

10 whitefish, slimy sculpin, white suckers and shiners.

11   After remediation, it is anticipated

12 that there will be reduced biological attributes within

13 the new creek channel until all the natural system

14 recovers. DFO anticipates that the remediation

15 activity will have effects on the current functionality

16 of fish habitat in Baker Creek.

17   Due to this -- due to the reduced

18 biological attributes in the new section of the creek

19 channel, it is expected that there will be reduced

20 primary production, bottom insect analogous

21 assemblages, mack -- emergent plants and riparian

22 vegetation that -- that grows on the -- along the

23 shoreline, compared to the existing creek conditions.

24   This reduced productive capacity is

25 expected to affect Baker Creek until the natural stream

1 ecosystem recovers beyond site remediation phase and

2 into the long-term operation and monitoring phase.

3   DFO does not consider these effects to

4 be unacceptable, provided that an approved restoration

5 plan designed to offset habitat losses and improve

6 habitat quality and quantity is implemented and

7 monitored to measure long-term recovery and restoration

8 success.

9   Our recommendations. DFO recommends the

10 completion of a sediment assessment -- and we

11 understand that's underway -- and the development of

12 associated remedial options to assist in selecting

13 final remediation plans for Reaches Zero, 2, 5, and 6

14 of Baker Creek. DFO will require this information in

15 order to determine the overall scale of the impacts for

16 Baker Creek.

17   DFO recommends that the restoration plan

18 and design that will achieve the offsetting of fish

19 habitat for Baker Creek be developed as part of the

20 overall remediation design for the creek. The

21 restoration plan and channel designs must be submitted

22 to DFO for approval as a requirement of the Fisheries

23 Act authorization.

24   DFO recommends the development of a

25 environmental management plan for the remediation and

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1 restoration of Baker Creek that outlines the required

2 mitigation measures and monitoring plans. The

3 mitigation measures and monitoring plan will be a

4 requirement of any Fisheries Act authorization issued.

5 The plan would include details on mitigation measures

6 to be implemented to manage and minimize downstream

7 impacts to fish and fish habitat during remediation,

8 how the mitigation measures will be monitored, and a

9 monitoring plan to evaluate the restoration of Baker

10 Creek as functioning fish habitat.

11   Finally, DFO recommends that the

12 commitments made to engage the public and aboriginal

13 groups on the Baker Creek remediation options and

14 restoration plan be completed prior to finalizing the

15 remediation options, channel designs, and fish habitat

16 restoration plan. DFO will use the results of the

17 public and Aboriginal engagement when developing its

18 regulatory tools.

19   Thank you for the opportunity -- oh, one

20 (1) more. Sorry. Historic foreshore tailings.

21 Studies undertaken on the area of historical mine

22 tailings deposition in Yellowknife Bay have shown that

23 over the years the submerged tailings have been carried

24 and redistributed along the western side of north

25 Yellowknife Bay by wave action and la -- and lake

1 currents.

2   As noted in previous studies of the area

3 -- and I'm almost through -- the results indicated that

4 there was a continued effect to the benthic

5 invertebrate community, those insects that inhabit the

6 bottom -- the benthic invertebrate community structure

7 exposed to elevated arsenic concentrations in the

8 sediment.

9   The extension of a geotextile liner and

10 a riprap cover over the submerged tailings would assist

11 in preventing erosion and exposure of tailings, and

12 minimize the potential for continued migration of

13 tailings.

14   Provided it fully neutralizes the

15 potential contaminant mobilization from the tailings,

16 the cover would eliminate the direct exposure of the

17 bottom community to elevated arsenic levels in the

18 sediment and provide a clean substrate layer for those

19 invertebrates. Depending on the extent of the area to

20 be covered and the size of the riprap material to be

21 used, it could also improve habitat available to fish

22 in the area.

23   The final cover design and footprint, as

24 well as the construction deda -- details have not been

25 put forward for the proposed remediation of the

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 1 historic foreshore tailings in Yellowknife Bay.

 2   Therefore, DFO recommends the completion

 3 of a fish habitat assessment in Yellowknife Bay in the

 4 area of the historic tailings, including the extent of

 5 the proposed tailings cover.

 6   DFO also recommends the development of

 7 an environmental management plan that outlines measures

 8 to mitigate adverse impacts to fish and fish habitat

 9 during construction of the cover for the historic

10 foreshore tailings area and to monitor to ensure that

11 the cover is functioning as intended.

12   DFO requests the final design and

13 mitigation measures for the submerged tailings cover be

14 provided to inform a review pursuant to the fish

15 protection provisions of the Fisheries Act.

16   Thank you very much, Mr. Chair, and we'd

17 be happy to entertain any questions.

18   THE CHAIRPERSON: I think what I'll do

19 is I'll entertain the city's presentation and then I'll

20 come back for questions for all three (3) in one (1)

21 shot. Thank you. I'll get the city to come up and set

22 up.

23

24   (BRIEF PAUSE)

25

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 1   THE CHAIRPERSON: Maybe what I'll do

 2 is, while those guys set -- set up, the City, I'll --

 3 I'm going to go to the questions for -- quickly, and

 4 I'll separate the City from that.

 5   The Environment Canada and DFO did a

 6 presentation, so I'm going to go to the Developer. Is

 7 there any questions for Environment Canada and DFEO --

 8 DFO?

 9

10 QUESTION PERIOD:

11   MR. ADRIAN PARADIS: I apologize.

12 Thank you, Mr. Chair. No, the Proponent has no

13 questions for EC or DFO.

14   THE CHAIRPERSON: Okay. Thank you. I

15 want to go to City of Yellowknife. Did you have any

16 questions for -- for DFO and Environment Canada on

17 their presentation?

18   MR. DENNIS KEFALAS: Dennis Kefalas for

19 City of Yellowknife. No questions, but we'd like to

20 commend DFO for bringing up the issue of the foreshore

21 tailings.

22   THE CHAIRPERSON: Thank you. The

23 Yellowknives Dene First Nation...?

24   MR. TODD SLACK: Thanks, Mr. Chair. No

25 questions.

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1   THE CHAIRPERSON: Thank you.

2 Alternatives North...?

3   MR. KEVIN O'REILLY: Thanks, Mr. Chair.

4 It's Kevin O'Reilly for Alternatives North. No

5 questions from us, but we think they did a good job,

6 both Environment Canada and DFO. Thanks.

7   THE CHAIRPERSON: Okay. Thank you.

8 North Slave Metis Alliance...?

9   MS. SUSAN ENGE: No questions, thank

10 you.

11   THE CHAIRPERSON: Okay. Thank you.

12 I'm going to the Board technical advisor.

13   MR. ALAN EHRLICH: If it please the

14 Chair, we'd like to put in a couple of staff questions

15 before the technical advisor questions instead of the

16 other way. Is it all right if -- it's Alan Ehrlich for

17 the Review Board.

18   Would it be okay if we did Board staff

19 questions prior to technical advisor questions?

20   THE CHAIRPERSON: Yeah, go ahead.

21   MR. ALAN EHRLICH: Thank you. Now,

22 these are questions for -- some are for Environment

23 Canada and some are for Department of Fisheries and

24 Oceans.

25

1   (BRIEF PAUSE)

2

3   MR. ALAN EHRLICH: For Environment

4 Canada, could you please indicate what depth of tailing

5 cover would satisfy Environment Canada's concerns at

6 this time?

7   THE CHAIRPERSON: Thank you. I'll go

8 to Environment Canada.

9   MS. AMY SPARKS: Amy Sparks,

10 Environment Canada. Environment Canada would like to

11 see the tailings cover redesigned. At this point,

12 we're recommending at least 1.5 metres in depth, but

13 that is dependent on the depth of the roots of the

14 native vegetation in the area, and would need to be

15 confirmed through scientific literature.

16   THE CHAIRPERSON: Thank you. I'll go

17 back to the Review Board staff.

18   MR. ALAN EHRLICH: Thank you. My next

19 question is for the Department of Fisheries and Oceans.

20 The Yellowknives Dene First Nation and others have

21 described concerns about contaminants in traditionally

22 harvested fish, as you're likely aware from your

23 participation in this hearing and this assessment to

24 date.

25   The Northern Contaminants Program has

252

 1 established, again as you're likely aware, that

 2 perceptions of contaminants in traditional foods affect

 3 people's harvesting and the consumption of traditional

 4 foods.

 5   The question I'm asking DFO is: In your

 6 view, how important is this issue?

 7   THE CHAIRPERSON: Thank you. I'll go

 8 to DFO.

 9   MS. MORAG MCPHERSON: Morag McPherson

10 with Fisheries and Oceans. I think everyone has a

11 concern with the contamination and potential

12 contamination of fish in the bay related to Giant Mine.

13 I mean, we've heard it from the community, we've heard

14 it from the Board staff and the -- and -- and other

15 members of the public who've come up.

16   It's an important issue. This is a

17 contaminated site, and there's a remediation plan, and

18 you need to understand what's happening in the

19 environment and if it's safe.

20   We do believe that's an important issue

21 that is looked at at all contaminated sites in the

22 north that Fisheries and Oceans provides input on. And

23 we have recommended that there be assessments on the

24 fish tissue in Baker Creek as well as in the bay

25 related to this project.

 1   THE CHAIRPERSON: Thank you. Before I

 2 go back to the Review Board's technical advisor, can

 3 you be able to put your mic closer to you next time?

 4 Alan Ehrlich...?

 5   MR. ALAN EHRLICH: It's Alan Ehrlich,

 6 Board staff. Thank you for that, Morag. I was not

 7 actually speaking to how important DFO views the issue

 8 of contaminants in fish. I was being specific, saying

 9 the perceptions of contaminants in fish affects

10 traditional harvesting and consumption of fish,

11 according to the Northern Contaminants Program, which

12 DFO has been involved with for a number of years.

13   My question was: How important, in your

14 view, is this issue of perception of contaminants in

15 fish and consumption of traditionally harvested fish?

16   THE CHAIRPERSON: Thank you. Back to

17 DFO to the question.

18   MS. BEV ROSS: Bev Ross, Fisheries and

19 Oceans Canada. DFO does view that perception as

20 important, and it's one (1) of the reasons that we do

21 recommend ongoing consultation with communities.

22   THE CHAIRPERSON: Thank you. Review

23 Board staff...?

24   MR. ALAN EHRLICH: Thank you for that.

25 And one (1) final line of questioning. Is DFO aware of

1 any case studies, or of any studies, on chronic effects

2 on fish that use Baker Creek?

3   THE CHAIRPERSON: Thank you. DFO...?

4

5   (BRIEF PAUSE)

6

7   MS. MORAG MCPHERSON: Yes, we are aware

8 of the studies and a lot of the historical studies that

9 have been done on Baker as well as the current studies.

10 In the Developer's assessment report and in a lot of

11 their supporting documents, all of this information has

12 been compiled and summarized.

13   In the one (1) section in the

14 Developer's assessment report, it describes the

15 existing environment, the aquatic environment, it

16 provides some summaries of -- of the results of those

17 studies and, as my colleague from Fisheries and Oceans

18 -- or from Environment Canada could say -- could maybe

19 describe in more detail, there's -- the Giant Mine is -

20 - has an environmental effects monitoring program

21 that's required related to the discharge of their mine

22 effluent. So there is ongoing study of the effects to

23 fish in Baker Creek, and these studies have been

24 summarized in the DAR.

25   THE CHAIRPERSON: Thank you. I'll go

 1 back to Review Board staff.

 2   MR. ALAN EHRLICH: Thank you, Mr.

 3 Chair. We don't have any more questions from Review

 4 Board staff. Two (2) of the Board's experts would like

 5 to ask questions, followed by questions from legal

 6 counsel.

 7

 8   (BRIEF PAUSE)

 9

10   MS. KATHERINE ENNS: Katherine Enns.

11 I'm just -- I -- I realize it's getting late in the day

12 and I -- I don't want to belabour the point, but I just

13 want to bring up the concept of -- I can't think of

14 another word for it. I mean, I've been told I

15 shouldn't use the word "attractive nuisance" because it

16 sounds too trivial but, in fact, it -- it does mean

17 something.

18   It means that when you have toxic

19 substances in an environment you do not want to attract

20 something into it that would put them at risk. And

21 it's just an old term. I'm sure there are old

22 engineering terms and old government terms that have

23 been around for a long time.

24   So just to point out from -- from your

25 own documentation from the Tier 2 Risk Assessment that

256

1 the effects range for fish are 2.0 to 6.0 micrograms

2 per -- well, parts -- parts per million. In fish in

3 the creek, concentrations in tissues range from minus

4 two (2) to thirty (30), and between point four (.4) to

5 six (6), assuming moisture content of 80 percent.

6   And the conclusion was that while the

7 data for rainbow trout are not necessarily directly

8 applicable to other fish species, the data support the

9 results of the risk assessment that suggest that fish

10 in Baker Creek may be potentially at risk of adverse

11 effects. That's a very kind of consultancy way of

12 saying that there is potential for risk. And I haven't

13 see a lot of demonstration of effects to fish.

14   Fish in a habitat doesn't mean that fish

15 are doing well, it just means that they're there. It's

16 possible to create habitat for fish and draw them in,

17 but that doesn't mean that they don't have effects or

18 that it's necessarily good for them.

19   So I would have a question -- I have --

20 I have a couple of questions. I have one (1) -- one

21 (1) question in particular for the -- for DFO and that

22 is: Given that the statement that the CCME is not

23 appropriate for this project, and that when you -- when

24 you really look at the -- the levels that are

25 acquainted with harm in fish the concentrations

 1 attenuated over to 2010 are orders of magnitude higher

 2 than they should be for Baker Creek in the sediments,

 3 and severe effect levels are set at three thousand

 4 (3,000) -- or, 346 micrograms per gram, probable effect

 5 levels set at seventeen (17), why you would accept

 6 predicted AS levels in sediments of two thousand five

 7 hundred (2,500) down to about fifteen hundred (1,500)

 8 over a hundred-year life span?

 9   Why would you put all the time and

10 effort into rehabilitating a creek that could

11 potentially draw fish in when there are other

12 alternative ways of enhancing habitat in the Northwest

13 Territories?

14   THE CHAIRPERSON: Thank you. I'm

15 going to go to DFO.

16

17   (BRIEF PAUSE)

18

19   MS. MORAG MCPHERSON: Morag McPherson

20 with Fisheries and Oceans. Sorry, I'm neglecting to

21 say my name.

22   Just a point of clarification just so I

23 know from the information that you're referencing

24 there, Mr. Chair, I just want to understand what

25 information she's -- she's viewing.

 1   Are you talking about information on the

 2 current contamination in Baker right now, the numbers?

 3 Or the predicted post-remediation values?

 4   MS. KATHERINE ENNS: The predicted

 5 post-remediation values for Baker Creek from the Tier 2

 6 Ecological Risk Assessment.

 7   THE CHAIRPERSON: We'll go to DFO.

 8

 9   (BRIEF PAUSE)

10

11   MS. MORAG MCPHERSON: Sorry. Thank

12 you. Morag McPherson with Fisheries and Oceans.

13 There's a lot of layers to that question, so I'm trying

14 to figure out the best way to respond to that.

15   I think -- I think one (1) thing that I

16 would like to clarify, or that I think needs to be

17 clarified, is that we're not trying to create habitat

18 in a contaminated area. There's already existing

19 habitat in Baker, and Baker is contaminated. And we

20 recognize that that needs to be dealt with. And we

21 need to understand what the effects are, better

22 understand, and if it's safe.

23   We've requested information to get more

24 details on the effects of the sediment, what's going

25 on, and to help determine what has to happen at the

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1 creek. And this information is being collected right

2 now and will help inform the future remediation

3 objectives for the creek.

4   And then, once those remediation

5 objectives have been established, with input by the

6 departments as well as the public, to determine what

7 has to happen with the sediment and what the future

8 objectives will be for the creek. Then we'll be able

9 to advance discussions on potential restoration in

10 those areas.

11   So I don't -- I just want to clarify

12 that we're not trying to create habitat in a

13 contaminated area. There already is habitat. It's

14 there. We didn't create it. It's being used and we

15 understand the level of contamination and the concern,

16 and that it needs to be addressed.

17   We've requested that, you know,

18 additional information be collected to inform our

19 understanding, to advance some of the information that

20 was -- the risk assessment was based on, the risk gaps.

21 There's more field data that was required to sort of

22 assist in these discussions. And -- and that

23 information is being collected to assist in -- in these

24 ongoing discussions to determine what the objectives,

25 the remediation objectives, will be for Baker in terms

1 of the contamination levels. And then we can talk

2 about restoration.

3   MS. KATHERINE ENNS: Thank you.

4 Katherine Enns again. So I'm assuming that if you

5 determined that the concentrations in sediments were

6 not going to attenuate enough over time, or be drawn

7 down enough over time, that you would consider an -- a

8 -- an alternative to the enhancement of habitat in

9 Baker Creek that might draw fish in and expose them to

10 those harmful substances in the creek?

11   THE CHAIRPERSON: I'll go to DFO.

12

13   (BRIEF PAUSE)

14

15   MS. MORAG MCPHERSON: Morag McPherson,

16 Fisheries and Oceans. We're sorry, we need -- we just

17 need a bit of time to talk here on a few of these

18 things, because I think it's very important.

19   We don't -- it's difficult to answer

20 these questions, because we don't have the information

21 before us to make those types of conclusions or state

22 what we would or would not do. There's information

23 outstanding, there's decisions that have not been made

24 related to the remediation of Baker Creek and -- and

25 what it will look like into the long term.

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1   So to -- yeah, we -- we just aren't able

2 to answer that question at this point without knowing

3 what the remediation objectives and the final

4 restoration plan will be for Baker Creek.

5   THE CHAIRPERSON: I'll go back to our

6 technical advisor.

7   MS. KATHERINE ENNS: Katherine Enns

8 again. Is this not a final remediation plan?

9   THE CHAIRPERSON: I'll go back to DFO.

10   MS. MORAG MCPHERSON: Morag McPherson,

11 Fisheries and Oceans. This is a -- a remediation plan.

12 As outlined in the Developer's assessment report, the

13 Baker Creek remediation component, there are several

14 reaches of the creek where three (3) different options

15 for potential remediation were outlined, with the

16 understanding that further information and consultation

17 had to be undertaken to determine what happens to those

18 reaches.

19   So as assessed in the current DAR that -

20 - with the information we have and the discussions

21 we've had on this EA for the last four (4) years, it's

22 -- there are three (3) potential options for

23 remediation on several parts of the creek, so that the

24 final remediation plan for Baker Creek is not in place

25 yet.

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1   MS. BEV ROSS: I think it's also -- Bev

2 Ross, Fisheries and Oceans Canada. I think it's also

3 important to have some greater certainty on -- on the

4 direction, because you -- we're hearing, If this and if

5 that.

6   If we have knowledge and -- and we do

7 have this expectation that the level of contamination

8 in the creek is going to decline, then it does

9 necessitate, I think, some further discussion on

10 looking at restoration and getting community input on

11 that restoration and what the community's thoughts are.

12   THE CHAIRPERSON: Thank you. I'm

13 going to go to the Review Board legal counsel. And I'm

14 just thinking about maybe is there a need here for an -

15 - an undertaking here?

16   MR. JOHN DONIHEE: Thank you, Mr.

17 Chairman. I'd just like to point out that the issuance

18 of a Fisheries authorization is subject to screening

19 under the MVRMA in the same way that an application for

20 a land use permit or a water licence is. Now what

21 triggered this environmental assessment of course was a

22 -- an application for a water licence that was referred

23 by the City of Yellowknife.

24   But I-- I'm just curious about the last

25 answer that we got because, you know, there isn't going

1 to be another assessment done. And so, you know, if

2 there's going to -- if you're anticipating that there's

3 going to be some kind of additional information filed

4 in -- in relation to -- that goes beyond what's in the

5 DAR that can be the basis for your department's

6 decision that -- that's all well and good. You're a

7 regulator and that's your responsibility to do that.

8   But, you know, this is the only DAR you

9 get to assess and to comment on in order to assist the

10 Review Board. And, you know, I just -- it's starting

11 to sound a little bit confusing from my perspective as

12 to just what -- you know, what remediation plan or

13 plans DFO seems to, you know, think it -- it's going to

14 review. And how, in effect, since it -- those plans,

15 no matter where they come from, are subject to the Act,

16 you're going to provide that advice to the Review

17 Board.

18   You know, not -- not to put -- to jump

19 too far ahead here. But with the greatest of respect,

20 very few of your recommendations have anything

21 whatsoever to do with this impact assessment, they're

22 all related to your role. I went through them one (1)

23 by one (1) rather carefully and they're all related to

24 your responsibilities as a -- as a regulator.

25   So, you know, we're -- we're trying to

1 understand what the impacts of the activities proposed

2 are. And with respect both to you and to the

3 Developer, to say that we're going to get more

4 information later is really no help at all.

5   THE CHAIRPERSON: Thank you, Mr.

6 Donihee, for that clarification. I'm going to go back

7 to DFO.

8

9   (BRIEF PAUSE)

10

11   MS. BEV ROSS: I think I heard -- oh,

12 Bev Ross, Fisheries and Oceans Canada. I think I heard

13 more comment than question there. So I'm just going to

14 reiterate.

15   In -- in general overall DFO is

16 supportive of the remediation and restoration of Baker

17 Creek. So we anticipate the Proponent providing

18 additional details for us in the regulatory phase in

19 order to inform our regulatory instruments.

20   We do, in terms of our assessment though

21 have concluded that overall the -- sorry, the

22 remediation and restoration of Baker Creek will have a

23 net benefit to fish and fish habitat.

24   THE CHAIRPERSON: I'm going to go back

25 to the Review Board, Mr. Donihee. Did he have a -- did

 1 he want to respond.

 2   MR. JOHN DONIHEE: Thank you, Mr.

 3 Chairman. I will switch back over to the technical

 4 questions.

 5   THE CHAIRPERSON: Please proceed.

 6   MR. DAVE TYSON: Thank you, Mr.

 7 Chairman. Dave Tyson. Excuse me. We're talking here

 8 about a restoration in Baker Creek. From what we've

 9 seen about the -- the water quality modelling in Baker

10 Creek, immediately after remediation at site we're

11 looking at about -- there are arsenic levels about

12 twenty-three (23) times the CCME guidelines for

13 protection of aquatic life. Over the next ninety (90)

14 years that will decline to a point of just over twenty

15 (20) times.

16   The site is not being restored, it's

17 being remediated. And what you're proposing is -- or,

18 what we're talking about here is restoration in the

19 creek while the land draining in -- into is only

20 remediated. So there's going to be -- it -- it appears

21 to be extended non-point source drainage of arsenic

22 into the creek upstream from historic deposition coming

23 off of the -- the mine site itself.

24   And so my question is: Is it

25 appropriate to undertake a habitat restoration project

1 in a creek where the water quality, particular --

2 particularly arsenic, is going to exceed CCME

3 guidelines for the foreseeable future?

4   THE CHAIRPERSON: Thank you. I'm

5 going to go to DFO.

6   MS. BEV ROSS: Bev Ross, Fisheries and

7 Oceans Canada. Based on what we understand from the

8 Proponent's information and their ecological risk

9 assessment the restoration of Baker Creek would not

10 pose an unacceptable risk to aquatic habitat.

11   As we mentioned before the fish are

12 already using Baker Creek, they are already attracted

13 to it. They're using it to spawn and rear and other

14 uses. It's our view that by improving the habitat

15 there may be improved opportunities for successful

16 spawning and rearing.

17   Sorry, and Morag is going to add a few

18 more comments.

19   MS. KATHERINE ENNS: Kat Enns. One (1)

20 more question? Oh, sorry.

21   THE CHAIRPERSON: DFO...?

22   MS. MORAG MCPHERSON: Yeah, I just want

23 to add a comment that -- that we are very aware this is

24 a remediation project. And our approach to this

25 project has been that Baker Creek needs to remediated,

1 the site needs to be remediated. There are issues that

2 need to be remedied and we are aware of those.

3   And in assessing this project we've

4 assumed that all of Baker Creek on the Giant Mine site,

5 as the options have been outlined, have been assessed

6 that there will be remediation work disrupting the

7 current functioning habitat, and that's how it's been

8 conceptually been assessed.

9   The final plans are not in place, but we

10 understand that it -- it has to be remediated and

11 that's the priority. Once that's been determined and

12 an acceptable level of remediation has been selected

13 then we can talk about the restoration. And when I'm

14 talking about restoration, I mean restoring a certain

15 function.

16   The Creek is functioning at a level

17 right now as fish habitat. And we are assuming that at

18 least after the remedial actions have been taken that

19 we would attempt to restore it back to its currently

20 functioning level or to enhance it. But these are

21 things that still need to be discussed.

22   And I think that the recommendations

23 that we've put forward address some of those gaps and

24 things that we feel are important for the Board to

25 consider. Things like public engagement that we've

1 heard -- public engagement on Baker Creek restoration

2 from other parties that we are putting forward as

3 recommendations and things that we feel will assist in

4 mitigating and managing effects of this remediation

5 project.

6   THE CHAIRPERSON: Review Board...?

7   MR. DAVE TYSON: Thank you, Mr.

8 Chairman. Dave Tyson. So -- excuse me. Are you -- so

9 the CCME guidelines are therefore not necessarily

10 appropriate for this project?

11   THE CHAIRPERSON: To DFO.

12   MR. DAVE TYSON: Would you agree?

13

14   (BRIEF PAUSE)

15

16   MS. MORAG MCPHERSON: Mr. Chair, I

17 could defer to my colleague here at Environment Canada

18 to maybe provide some information or a response on --

19 related to the CCME guidelines, if that's all right.

20   THE CHAIRPERSON: Yeah, okay. We'll

21 proceed with Environment Canada.

22   MS. AMY SPARKS: Amy Sparks,

23 Environment Canada. There's been many discussions

24 surrounding guidelines for this site. But, as you

25 know, not only is the water coming down the creek

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1 already above CCME guidelines, but background isn't

2 taking it into account when those CCME guidelines are

3 created for Canada.

4   So we've been advocating from day 1 that

5 there are site-specific guidelines that are used on the

6 site and that CCME freshwater aquatic life wouldn't be

7 appropriate for the creek.

8   THE CHAIRPERSON: Okay. We'll go back

9 to the Review Board staff or technical advisor.

10   MR. DAVE TYSON: Thank you. Dave

11 Tyson. What would be the background for this area?

12   THE CHAIRPERSON: We'll go back to

13 Environment Canada.

14   MS. AMY SPARKS: Amy Sparks,

15 Environment Canada. There have been some struggles

16 finding an appropriate background area. They have used

17 the Yellowknife River for the EEM studies to use an

18 appropriate area. But there was discussion determining

19 whether that was appropriate or not, so that discussion

20 would still need to be had. I don't think there's a --

21 there's a fantastic -- fantastic place for those

22 background concentrations, an appropriate reference

23 area, but there are some good options.

24   THE CHAIRPERSON: We'll go back to the

25 Review Board technical staff.

 1   MR. DAVE TYSON: Thank you. Dave

 2 Tyson. So what I'm hearing is, we don't know?

 3   THE CHAIRPERSON: Thank you. I'll go

 4 back to Environment Canada, to the question.

 5   MS. AMY SPARKS: Amy Sparks,

 6 Environment Canada. Site-specific water quality

 7 objectives haven't been developed so, yes, at this

 8 point we -- we don't know the number that would be used

 9 because that number hasn't been developed yet.

10   THE CHAIRPERSON: Thank you. I'll go

11 back to the Review Board technical staff.

12   MR. DAVE TYSON: But what we do know is

13 we do know that there's historic deposits that are

14 leaching into the creek and we don't know what the --

15 the background is. So -- but what we also know is that

16 Baker Creek will be twenty (20) to twenty-three (23)

17 times the CCME guidelines.

18   Just trying to clarify. Thank you.

19   MS. KATHERINE ENNS: I wanted to refer

20 to --Mr. Chair, Katherine Enns. I would like to refer

21 you to the uncertainty principle, and I had it on a

22 PowerPoint presentation for -- to read it out to you.

23 It is a precautionary -- the precautionary principle.

24 So if you just wait a second I'm going to find it

25 because I think it applies here. I was thinking of the

1 Heisenberg uncertainty principle, but I got the -- my

2 principles mixed up.

3   "Ladies and gentleman, the

4   precautionary principle, or

5   precautionary approach, states that

6   if an action or a policy has a

7   suspended risk of causing harm to the

8   public or to the environment, in the

9   absence of scientific consensus that

10   the action or policy is harmful the

11   burden of proof that is not harmful

12   falls on those taking the action.

13   This principle allows policy makers

14   to make discretionary decisions in

15   situations where there is a

16   possibility of harm from taking a

17   particular course or making a certain

18   decision when extensive scientific

19   knowledge on the matter is lacking.

20   The principle implies that there is a

21   social responsibility to protect the

22   public from exposure to harm when

23   scientific investigation has found a

24   plausible risk. These protections

25   can be relaxed only if further

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1   scientific findings emerge that

2   provide sound evidence that no harm

3   will result."

4   Now in some legal systems, as in the law

5 of the European Union, you know -- so that is a

6 statutory law. Here in Canada, it's just a principle.

7   I ask: Would you consider the

8 precautionary principle as a guiding rule for your

9 steps forward in the management of Baker Creek?

10   THE CHAIRPERSON: Thank you. I'll go

11 to DFO.

12

13   (BRIEF PAUSE)

14

15   MS. BEV ROSS: Bev Ross, Fisheries and

16 Oceans Canada. I think there's also an argument to be

17 made that a precautionary approach will be taken in

18 this matter.

19   It's our understanding that we're

20 looking at actions that would be an improvement over

21 existing conditions. The Proponent's information

22 indicate -- and their risk assessment indicates that

23 restoration would not pose an unacceptable risk to

24 aquatic habitat. And we have recommended monitoring --

25 ongoing monitoring and adaptive management in order to

1 continue to manage the risk going into the future.

2   MS. KATHERINE ENNS: Katherine Enns.

3 Thank you very much for your -- your comments. I have

4 no further questions.

5   THE CHAIRPERSON: Is there any further

6 questions from the Review Board technical staff, legal

7 counsel, tech -- technical advisor?

8   MR. DAVE TYSON: Yes, thank you, Mr.

9 Chairman. I've read the reports on Reach 4. That's

10 the -- that was the diversion. And they were very

11 interesting.

12   Would you agree that they -- that Reach

13 4 could serve as a proof of concept for, say, a north

14 diversion and the creation of fish habitat in a

15 diversion around the mine site?

16   THE CHAIRPERSON: Thank you. DFO...?

17   MS. BEVCanada. We haven't had an

18 opportunity to review a proposal for a north diversion.

19 We're aware that there's been some discussion around

20 it, but we don't have any information with which to

21 look at that right now. So we would not be in a

22 position to provide comments on it at this time.

23   THE CHAIRPERSON: Thank you. I'll go

24 back to the Review Board technical staff.

25   MR. ADRIAN PARADIS: Mr. Chair, I'd

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1 like to try and add -- and I know this is between DFO

2 and all the rest, but I would like to try and get in

3 some clarification here, if that all -- is at all

4 possible.

5   MR. ALAN EHRLICH: Mr. Chair, this Alan

6 Ehrlich speaking. The previous speaker was Adrian

7 Paradis. Alan Ehrlich with the Review Board staff.

8   There are no further questions from

9 Review Board experts, staff, or legal counsel.

10

11   (BRIEF PAUSE)

12

13   THE CHAIRPERSON: Thank you. I want -

14 - I was going to -- the Developer, I guess -- I had

15 come to you first and there was no questions. So is

16 there a question now to DFO on their presentation?

17 Because if not, I'm going to go to my Board Members.

18

19   (BRIEF PAUSE)

20

21   MR. ADRIAN PARADIS: Thank you. Thank

22 you, Mr. Chair. I apologize for about the

23 interruption. Please proceed. Thank you.

24   THE CHAIRPERSON: Thank you. I'm

25 going to go to my far left now, John Curran. Is there

1 any questions for DFO and/or Environment Canada on

2 their presentation?

3   MR. JOHN CURRAN: I just have one (1),

4 Mr. Chairman, I'm sorry.

5   DFO, given the choice between creating

6 new fish habitat away from the contamination or

7 investing money into additional fish habitat in a place

8 where people would never be able to eat the fish from,

9 could you please tell me which one you would choose?

10   THE CHAIRPERSON: Thank you. DFO to

11 the question.

12   MS. BEV ROSS: Bev Ross, Fisheries and

13 Oceans Canada. I think we would want to see a concrete

14 proposal before we evaluated the benefits and risks of

15 one versus the other.

16   The "would never be able to eat the

17 fish" part of it isn't something that has -- is

18 something that we would be able to evaluate. That's

19 outside of our mandate. What we have in front of us is

20 impacts to existing fish habitat and a proposal to

21 remediate and restore. So that's what we provided our

22 comments on.

23   If there is an alternative put forward,

24 we would be happy to review it and provide the Board

25 with comments on it. But we don't have that right now,

1 so we don't know what that looks like. I know that's

2 not as helpful as you would like it to be, and I

3 apologize for that. But we would be, you know, happy

4 to entertain alternatives, should they be put before

5 us. Thank you.

6   THE CHAIRPERSON: Thank you. Mr. John

7 Curran...?

8   MR. JOHN CURRAN: Should an alternative

9 be put forward that allowed for the creation of fish

10 habitat away from the contaminated site, do you think

11 that you would be supportive of it, yes or no?

12   THE CHAIRPERSON: Thank you. DFO...?

13   MS. BEV ROSS: A proposal that created

14 fish habitat would certainly be something that we would

15 want to look at and could, yes, potentially be

16 something we would support.

17   THE CHAIRPERSON: Thank you. Mr. John

18 Curran...?

19   MR. JOHN CURRAN: Thank you for your

20 clarity. Nothing further.

21   THE CHAIRPERSON: Thank you. Percy

22 Hardisty...?

23   MR. PERCY HARDISTY: No questions, Mr.

24 Chair.

25   THE CHAIRPERSON: Mr. James Wah-

1 shee...?

2   MR. JAMES WAH-SHEE: Well, thank you

3 for your presentation there. I did have some questions

4 in regards to -- essentially, what -- what is DFO

5 responsible for? I mean, you state in one sense that,

6 yes, you have the responsibility for the -- the health

7 of -- of fish, I assume.

8   Right across Canada, as I understand it,

9 DFO gets themselves involved in the regulatory process.

10 In the Eastern Canada you deal with cod; in BC you deal

11 with salmon. I'm not sure if you get involved with

12 crabs and shellfish; I assume you do.

13   However, when it comes down to people,

14 you know, that have the right to harvest fish, I assume

15 that -- that's essentially the reason why DFO is

16 involved in fish. It's for -- it's like a national

17 resource which should be harvest by people. And as DFO

18 is aware, Aboriginal people, in terms of their diet,

19 depend upon wildlife and fish. And here we have a

20 situation where Aboriginal people still rely on their

21 traditional diet, and that includes fish. And here

22 we're talking about a clean-up.

23   And the -- and you're probably aware of

24 the presentation that was made by the Yellowknife Dene.

25 I assume you were here and you heard. And it's very

 1 clear that the Yellowknife Dene and other Aboriginal

 2 people would like to continue to harvest fish.

 3   Now their traditional harveting --

 4 harvesting area was primarily in the Yellowknife Bay

 5 before this catastrophe occurred in the Yellowknife

 6 Mine and Great Slave Lake.

 7   Now with your answers that you have

 8 given to questions of clarification in regards to fish

 9 habitat, when you say that we are not creating a fish

10 habitat, it's already there. We all know that.

11 However, it -- it's -- reminds me of a -- an ada --

12 analogy where DFO is playing the role of a doctor

13 looking after fish in the hospital of those two (2)

14 habitats which are contaminated, which is not really

15 healthy for the fish, and people can't even consume it.

16   But still DFO digs in their heels to

17 indicate that they still want to restore a contaminated

18 site for fish so that they can spawn and then finally

19 they end up in Great Slave Lake.

20   And the concern of the Yellowknife Dene

21 is that they catch fish in their nets, and the fish

22 that spawn in Baker Creek essentially ends up in Great

23 Slave Lake. So the ones that do not spawn in Baker

24 Creek and they spawn elsewhere, I would assume where

25 it's not contaminated, then you end up with a healthy

1 fish that would swim in Great Slave Lake.

2   So I guess the concern here of the

3 Yellowknife Dene is that when they catch fish in their

4 nets, they kind of wonder where did those fish come

5 from. Did they spawn in Baker Creek, or are they --

6 were spawning elsewhere? And I guess that's where the

7 confusion comes in, is whether the harvesting rights of

8 the Dene people is being undermined in a sense, because

9 there's a question period in regards to whether those

10 species are healthy for human consumption.

11   And then I'm very surprised to hear that

12 you say, Well, the human consumption of the fish,

13 whether it's healthy for humans, I assume you are

14 suggesting that this is the responsibility of Health

15 Canada.

16   Am I correct in my assumption?

17   THE CHAIRPERSON: Thank you. I'm

18 going to go to DFO to the question.

19   MS. BEV ROSS: Bev Ross, Fisheries and

20 Oceans Canada. I wanted to start our response with

21 acknowledging the concerns that a number of parties

22 have expressed about consumption of fish.

23   And it is a complex -- I mean, the

24 government always likes to make things complicated, and

25 this is another part of that. So we're -- Environment

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1 Canada has responsibilities under the Fisheries Act for

2 water quality, we have responsibilities for fish and

3 fish habitat, and we also manage the fishery here in

4 the North.

5   And we would rely on Health Canada to

6 provide advice on whether the fish is healthy for

7 consumption. So, yes, it would be Health Canada that

8 would issue any advisories in respect of -- of

9 consumption of the fish.

10   I'm just going to confer with my

11 colleague for a moment, because we might have one (1)

12 additional comment in respect of that.

13

14   (BRIEF PAUSE)

15

16   MS. MORAG MCPHERSON: Thank you. Morag

17 McPherson with Fisheries. As I had mentioned before,

18 we had recommended that additional fish tissue be

19 collected in order to try to answer these questions.

20   The Proponent, Giant Mine, has and is

21 underway collecting some -- some of this tissue data so

22 that we can answer these questions. And I think the

23 approach we've been taking on this project is, in a

24 way, a precautionary approach, because we don't have

25 the information to answer those to say, Yes, there is

1 an effect, the fish are affected right now in the

2 current contamination, and that we don't have the

3 answer around being able to consume the fish.

4   And -- and that would be up to Health

5 Canada to do the human health consumption on the fish

6 and advise the Government of the Northwest Territories

7 if -- if a consumption advisory is required.

8   THE CHAIRPERSON: Thank you. I'm

9 going to go back to Mr. James Wah-shee.

10   MR. JAMES WAH-SHEE: Mr. Chairman,

11 thank you very much. If I understand it correctly, I -

12 - I don't believe the Government of the Northwest

13 Territories Department of Health and Social Services

14 really have anything to do with the administration or

15 whether the fish species is good for human consumption.

16

17   I believe the human consumption and the

18 health of the fish is really the responsibility of

19 Health Canada and not the GNWT. Am I correct?

20   THE CHAIRPERSON: Thank you. We'll go

21 to DFO.

22   MS. MORAG MCPHERSON: Hopefully we can

23 clarify this. I think we have -- I think we're saying

24 the same thing. The Government of the Northwest

25 Territories, as far as my understanding -- and I know -

1 - I think either yesterday or the day before, it's all

2 blending; Ray -- Ray Case spoke to this -- that it is

3 Health Canada who undertakes the human health

4 assessments, but it is -- Health and Social Services

5 under the Government of the Northwest Territories

6 relies on Health Canada's assessment.

7   And they are the official government

8 body in the Northwest Territories that will issue a

9 consumption advisory based on the assessment of Health

10 Canada, and that's my understanding of the process.

11   THE CHAIRPERSON: Thank you. Mr.

12 James Wah-shee...?

13   MR. JAMES WAH-SHEE: Thank you, Mr.

14 Chairman. Well, just for sake of clarification,

15 because this issue is not going to go away; it has to

16 be addressed one way or the other.

17   It's Aboriginal people putting forth the

18 question very clearly to the federal government in

19 regards to harvesting rights, the human consumption of

20 fish species which is part of the Aboriginal diet. And

21 it's also the right of Aboriginal people to pursue

22 their traditional pursuit, which includes traditional

23 foods and I'm sure you appreciate that.

24   And therefore as part of the -- this

25 particular project it may be appropriate to have DFO

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1 and Health Canada clarify whether the fish species that

2 spawn in Baker Creek, whether they -- they can be

3 consumed by human people -- by people and that it will

4 not fect -- affect their health.

5   So we -- we require that clarification

6 because obviously DFO is going to get themselves

7 involved with the -- with the Baker Creek project. And

8 I don't believe it's the responsibility of the -- of

9 the Proponent, as such, because the Proponent don't

10 regulate fisheries. DFO does. But DFO does not have

11 the responsibility for human consumption. That's the

12 responsibility of Health Canada, as you've made it very

13 clear.

14   Now what -- what we need is perhaps an

15 undertaking by DFO and Health Canada to look at the

16 proposed project in regards to Baker Creek and to have

17 an undertaking so that we can be properly informed in

18 regards to the concerns that have been raised through

19 this community hearing, because we, as a Board, would

20 like to address that.

21   In order for us to address that, we need

22 the assistance of DFO and Health Canada so that the

23 concerns raised can be appropriately addressed. Thank

24 you.

25   THE CHAIRPERSON: Thank you. I'll go

1 to DFO to the question and to the question to the

2 undertaking as well.

3 MS. BEV ROSS: Bev Ross, Fisheries and

4 Oceans Canada. Obviously we're not in a position to

5 speak for Health Canada. And I guess I want to better

6 understand what the undertaking would be.

7 My understanding is that some additional

8 fish tissue data is being collected that would inform

9 the kind of risk assessment that would be helpful to

10 the Board. But I don't think that information would be

11 immediately available.

12 Perhaps what we could have a discussion

13 on and get back to the Board, perhaps tomorrow morning,

14 is a process that we could outline to the Board for

15 getting that information. We can have some discussion

16 with the Developer and with some of our colleagues and

17 see if we can propose a path forward that would address

18 the concerns expressed.

19 Would that be helpful?

20 THE CHAIRPERSON: Thank you. I'm

21 going to go to the Review Board legal counsel, Mr. John

22 Donihee.

23 MR. JOHN DONIHEE: Thank you, Mr.

24 Chairman. John Donihee. I -- I think that probably

25 would be quite helpful. But I -- I do want to just say

1 one (1) thing about what Mr. Wah-shee is asking for.

2   You know, if the answer is, We're going

3 to do more studies later, it's not helpful to the

4 Board. The Board has to make a decision. Once the

5 Hearing is over and the undertakings are filed and we

6 have final submissions, there's going to be a decision

7 made. And if the Board doesn't have the information

8 that it needs to make a decision, this -- this affects

9 the interests of your colleagues, you know, and AANDC

10 as well, because they want to go forward with this

11 project.

12   So, you know, the -- more fish tissue

13 samples collected at some point in the future really

14 does not help the Board to make a decision about

15 whether there's an impact or not on the basis of the

16 case that's been put forward here. And I -- I think

17 that's the difficulty. You know, take your regulator's

18 hat off for a moment, you know, because you never issue

19 the permit until they satisfy you.

20   But, you know, this is the impact

21 assessment process, and the Review Board has a shot at

22 this. We have the DAR in hand. We have the material

23 that's going to be filed. And then a decision is made.

24 And so we don't get to wait for four (4) or five (5)

25 months because these other people need a decision.

 1   So please talk to your colleagues,

 2 review the material that's on the record, tell the

 3 Board what you can tell them right now on the basis

 4 that -- of the evidence that you have. And please --

 5 you know, that at least will clarify things and help.

 6 It -- it won't help to tell us that if you have more

 7 fish tissue samples that you can do a better job.

 8   THE CHAIRPERSON: Thank you, Mr.

 9 Donihee, for that clarification. And that's exactly

10 why we're here. This is a process. And at the end of

11 the day, by Friday, we need to have everything in hand

12 here: evidence, everything else. The public records

13 close.

14   You know, we're here to do the

15 assessment of this whole thing. And -- and Mr. Wah-

16 shee put some really good questions forward, so we need

17 you to answer the question. Thank you.

18   MS. BEV ROSS: Okay. I'm sorry. Bev

19 Ross, Fisheries and Oceans Canada. What Fisheries and

20 Oceans Canada. What Fisheries and Oceans Canada cannot

21 provide advice to the Board on is the question of

22 consumption and the impact to human health. We're not

23 able to do that. It's not within our mandate. We

24 don't have the expertise.

25   So I would like to be more helpful to

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1 the Board if we can. And again, perhaps collectively

2 we can have the discussion about a process that might

3 get that infor -- or, at least identify a way of moving

4 that issue forward.

5   But I'm a little at a loss to, you

6 know, be able to give you a "yes" or "no" answer, I --

7 I can't do that. I -- we don't have the mandate. We

8 don't have the expertise at DFO to advise on the

9 suitability of fish for consumption. That is Health

10 Canada's mandate.

11   So if the Board will allow, perhaps we

12 can have some discussion with some of our other federal

13 colleagues and try be -- at least before the record

14 closes, to find an acceptable way forward for the

15 Board.

16   THE CHAIRPERSON: Well, it doesn't

17 make sense for you to talk to your federal colleagues.

18 I mean, you guys are here for your department and

19 pertaining to this project, you know. And there's some

20 really good questions that came out in the last day

21 here, and then the question was put forward to you.

22   And -- and in two (2) days we're done.

23 This is -- we -- we waited a long time to come to this

24 point. You know, I think the public and -- and the --

25 the community, and also the Developer is also here,

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 1 we're -- we're all here. You know, this is the one (1)

 2 time we have to kick at the can. And I don't know if

 3 we're going to wait anymore. You know, if it's not in

 4 a file -- I mean, if you don't have it here, then we're

 5 going to go ahead and make a decision.

 6   You know -- so, anyways, I'm going to go

 7 to My Friend, Mr. Donihee. Did you have a follow-up

 8 question or a comment?

 9   MR. JOHN DONIHEE: Thank you. It's

10 John Donihee. No, Mr. Chairman. I was just about to

11 offer to provide them with the phone number for Health

12 Canada if they needed it.

13   THE CHAIRPERSON: Okay. No, no, let's

14 not go there right now. But anyways, I'm going to --

15 if there's no further comments or questions from our

16 staff, I think it's clear. I think we're going to

17 continue on.

18   Mr. Wah-shee, do you have any further

19 questions? I mean, it's -- it's all recorded, it's on

20 record. So we're moving forward, thank you.

21   Mr. Wah-shee...?

22   MR. JAMES WAH-SHEE: Mr. Chairman, I'm

23 quite disappointed that I'm not getting a very clear

24 reply. As you're aware, those concerns have been

25 raised in this community hearing.

1   And I, as on the -- on the Board, wanted

2 to make sure that some -- some clarification should be

3 given to the Aboriginal people that have raised this

4 concern. And so I'll just leave it at that. And thank

5 you for your reply. Thank you.

6   THE CHAIRPERSON: Thank you, Mr. Wah-

7 shee, for your -- your question and -- and comments.

8 Mr. Richard Mercredi...?

9   MR. RICHARD MERCREDI: Yeah, I do have

10 a questions, I guess -- or, maybe two (2). It's on

11 Baker Creek and for the two (2) -- two (2) ladies from

12 Department of Fisheries and Oceans, just a simple "yes"

13 or "no" question.

14   Would you -- would either of you ladies

15 eat the fish from Baker Creek after the remediation

16 project is completed?

17   THE CHAIRPERSON: That's a really good

18 question there, my friend. I'm going to go to DFO.

19   MS. MORAG MCPHERSON: Were you asking

20 post- remediation or right now? Sorry, Morag McPherson

21 with Fisheries and Oceans.

22   THE CHAIRPERSON: Mr. Mercredi...?

23   MR. RICHARD MERCREDI: Post -- post-

24 remediation, after it -- after it's done.

25   THE CHAIRPERSON: DFO...?

 1   MS. MORAG MCPHERSON: No, I would not

 2 eat fish from Baker Creek. And the reason I would not

 3 is because it would be closed to fishing. There is a

 4 regulatory change being put in place to close Baker

 5 Creek to fishing based on Fisheries managements

 6 objectives. It's currently a catch and release. And

 7 based on Fisheries objectives, to protect the Arctic

 8 grayling populations. As of April 1st of next year

 9 Baker Creek, will be closed to fishing. So post-

10 remediation, I would not be catching or eating fish

11 from Baker Creek.

12   THE CHAIRPERSON: Okay. Well, before

13 I go back to Richard Mercredi, the question is: Would

14 you eat the fish? Not weather you caught it out of

15 season or not.

16   If it's put in front of you and it's

17 cooked, yes or no?

18   MS. BEV ROSS: Bev Ross, Fisheries and

19 Oceans Canada.

20   MS. MORAG MCPHERSON: No.

21   MS. BEV ROSS: We would want to know

22 the results of that risk assessment -- the human health

23 risk assessment before we started to eat the fish. So

24 if there was a consumption advisory issued for fish in

25 Baker Creek, we would not --

 1   THE CHAIRPERSON: No, excuse me --

 2   MS. BEV ROSS: -- want to engage in

 3 that. Bev Ross --

 4   THE CHAIRPERSON: -- I -- this

 5 question -- we need to know. I mean, it was put

 6 forward and it's a simple yes or no. Both of you,

 7 right here. You guys live in Yellowknife, right?

 8   MS. BEV ROSS: Yes.

 9   THE CHAIRPERSON: Okay. The question:

10 Are you saying, yes, you would eat the fish if it's in

11 front of you?

12   MS. MORAG MCPHERSON: Morag McPherson.

13 Yes, I live in Yellowknife. And I would need

14 information in order to answer that question.

15   THE CHAIRPERSON: Mr. Mercredi,

16 proceed.

17   MS. MORAG MCPHERSON: And sorry, Mr. --

18   MR. RICHARD MERCREDI: Okay. My second

19 question then is, now that you won't eat the fish is I

20 guess I'm wondering why the Department of Fisheries and

21 Oceans are supporting their remediation of Baker Creek,

22 which is -- I guess, is a contaminated site. I

23 understand it's going to improve the site, it will not

24 clean it up. It will still be contaminated and the

25 fish will still be -- will -- will still not be eaten

 1 by either one of you or myself.

 2   And I'm wondering why you're not

 3 supporting a blockage of Baker Creek so the fish don't

 4 access that area anymore, never mind the fishing, that

 5 would prevent fishing, and looking to create habitat

 6 somewhere else, because as I understand it, the

 7 Department of Fisheries and Oceans, it's your

 8 responsibility to look after fish habitat, make sure

 9 it's clean and stuff.

10   And why are you supporting looking after

11 a contaminated site instead of just block it off and

12 find another area for the fish to go? And you take

13 care of the fishing problem also, because the fish

14 won't be able to access the Creek, whether it's an

15 electric fence or barrier.

16   THE CHAIRPERSON: Thank you, Mr.

17 Mercredi, for you question. I'm going to go to DFO to

18 the question.

19   MS. BEV ROSS: First DFO absolutely

20 does acknowledge the concerns that have been expressed

21 by the community, in terms of the concerns around

22 consumption. So we don't -- we take that seriously.

23   I think what we understand in terms of

24 the -- the project is that it's designed to improve the

25 conditions in Baker Creek. In terms of the fitness for

1 consumption and -- and kind of coming back to the

2 previous question, for myself, I wouldn't consider

3 eating the fish in Baker Creek until some assessment

4 had been done on the safety of it.

5   So that's where I would put it. It

6 wouldn't be that I would never eat it, but I wouldn't

7 eat it until I had some assurance that it was safe. So

8 I think that data is being collected.

9   In terms of an alternative, it wasn't

10 our understanding that we had been requested in this

11 environmental assessment to assess what we would call

12 alternative means of carrying out the project. Those

13 alternatives -- blocking and relocating Baker Creek --

14 were not before us. We weren't asked to assess it. So

15 we weren't -- we don't have an opinion on it. We're

16 not opposed to looking at that alternative, but we

17 don't have an opinion on it right now, because that

18 alternative has not been put before us.

19   So again, we could be as -- we'd like to

20 be as helpful as we can, but that alternative wasn't

21 assessed in this Environmental Assessment. So we don't

22 have the information to assess whether, you know -- how

23 would that blockage take place? Where would the creek

24 be routed? What are the risks associated with any new

25 routing that the creek might take? We haven't had any

1 information to assess.

2   So we're not expressing opposition to

3 that alternative. We don't have an opinion on it at

4 this time.

5   THE CHAIRPERSON: Thank you. Mr.

6 Mercredi...?

7   MR. RICHARD MERCREDI: No further

8 questions.

9   THE CHAIRPERSON: Thank you. Rachel

10 Crapeau...?

11   MS. RACHEL CRAPEAU: I just have a

12 comment to make. I understand why we're hearing your

13 story today the way it sounds. And I understand now

14 why yesterday and last night when you both went up to

15 the microphones and said, No questions for so and so,

16 no question for anybody else.

17   From hearing you today and not being

18 able to answer James' question I'm wondering what's --

19 what's going to happen with information that -- or,

20 what will the Elders be asking you and the only one

21 question I have is: Are you going to be going to

22 Dettah tonight? Thank you.

23   THE CHAIRPERSON: Thank you, Rachel

24 Crapeau. DFO...?

25   MS. BEV ROSS: Bev Ross, Fisheries and

 1 Oceans Canada. Yes, DFO was planning to attend the

 2 session in Dettah.

 3   THE CHAIRPERSON: Maybe I can also

 4 extend that to Environment Canada, are you planning to

 5 be there tonight as well?

 6   MS. AMY SPARKS: Amy Sparks,

 7 Environment Canada. Yes, we can be there tonight.

 8   THE CHAIRPERSON: Thank you. Is there

 9 any further questions, Rachel Crapeau?

10   MS. RACHEL CRAPEAU: No more questions

11 until later on tonight. Thank you.

12   THE CHAIRPERSON: Thank you. Danny

13 Bayha, Board Member...?

14   MR. DANNY BAYHA: Yes, thank you, Mr.

15 Chair. Just -- hopefully my question is a bit easier.

16 Hope we get some -- have some answers. And I can see,

17 really, the frustrations on -- on our Board. And we

18 have some decisions to make and we depend on folks from

19 your department to give us some expert advice on

20 proposals and alternatives, in this case will be very

21 helpful to make some decisions. If you guys can't make

22 decisions, what do you expect us to do? So I think we

23 -- we need -- I just want to make that comment.

24   Anyhow, the -- the questions of the --

25 the -- whatever plan that a proponent, in this case the

1 Developer, puts forward, are -- are you planning,

2 Environment Canada or DFO, be a monitoring role at all?

3 And -- and are you going to contribute anything to this

4 plan as -- if there's a -- if it's under your mandate?

5   Is -- do you have any thoughts on that?

6 Thank you.

7   THE CHAIRPERSON: Thank you, Mr.

8 Bayha. DFO...?

9   MS. MORAG MCPHERSON: Morag McPherson,

10 with Fisheries and Oceans. Yes, we've been involved in

11 providing advice on current monitoring that needs to be

12 undertaken to inform on the remediation.

13   Under our regulatory role, as we

14 outlined in our technical submission and some of our

15 recommendations, that we will require monitoring. And

16 we've also recommended to the Board to support a

17 measure for an aquatic effects monitoring program.

18   We're a member of the environmental

19 monitoring working group as part of Giant, where we

20 work with the other parties on issues and -- and input

21 in DFO's monitoring requirements. So we have made

22 several recommendations related to monitoring and

23 aquatic effects monitoring programs and would continue

24 to be involved in those as this moves forward. But

25 we've made those recommendations to the Board where we

1 feel it's important to have monitoring ongoing.

2   THE CHAIRPERSON: Thank you. Danny

3 Bayha...?

4   MR. DANNY BAYHA: Thank you, Mr. -- Mr.

5 Chair. And -- and the other -- in part of the group

6 and -- as a regulator, you also have some legislative

7 tools in case some of the things that you recommend or

8 some of the things that's in your authorization or even

9 in terms and conditions of -- of the water licence are

10 not followed and fish die or whatever, and you can step

11 in and -- and lay charges according to the Developer.

12 Thank you.

13   THE CHAIRPERSON: Thank you, Mr.

14 Bayha. We'll go back to DFO.

15   MS. MORAG MCPHERSON: Morag, Fisheries

16 and Oceans. Yes, that's correct.

17   THE CHAIRPERSON: Thank you. Danny

18 Bayha...?

19   MR. DANNY BAYHA: Yeah, thank you. And

20 I guess the final com -- comment -- or, question, I

21 guess. Over the few days we've been here, we always

22 have the idea of oversight committees, always can come

23 up again and again, the long-term oversight committee

24 for the long-term and perpetual care. That's always

25 been the topic of very interesting discussions on how

 1 things will unfold in the future.

 2   That concept, have you considered that

 3 and how you think it may work in the long-term and --

 4 in terms of your roles as maybe Environment Canada or

 5 in terms of Fisheries? Thank you.

 6   THE CHAIRPERSON: Thank you. I'm

 7 going to go to DFO.

 8   MS. BEV ROSS: Bev Ross, Fisheries and

 9 Oceans Canada. DFO does work regularly with existing

10 oversight committees, so that's not unfamiliar to us.

11   We have proposed that certain monitoring

12 be undertaken and monitoring objectives. And we see

13 often those more cooperative committees as a way of

14 better informing our regulatory tools and giving us

15 information that would assist in our assessments.

16   Overall, provided whatever monitoring

17 objectives we've identified are met, how they get met

18 as -- as long as they're met, the mechanism that the

19 Board is most comfortable with or the Board recommends

20 would be something that we would be willing to

21 participate in.

22   THE CHAIRPERSON: Thank you. Board

23 Member, Danny Bayha...?

24   MR. DANNY BAYHA: Yeah, thank you. And

25 -- and the level of uncertainty and the level of, I

 1 guess, we'd say in the project design and -- and, you

 2 know, how -- how it may work in the future, you know,

 3 the uncertain levels on future issues and -- and

 4 concerns, the -- the risks.

 5   Would you say the oversight committee

 6 would fill that role?

 7   I'm just trying to get an idea, have you

 8 thought about it and if this oversight committee or

 9 organization or -- if your experience with maybe the

10 other -- other oversight committees that's been in

11 place already like -- like, Diavik or -- or BHP. Thank

12 you.

13   THE CHAIRPERSON: Thank you. I'm

14 going to go to DFO.

15   MS. BEV ROSS: I guess there's a few

16 roles that we might play. And -- and I want to better

17 understand the question. We participate in such

18 committees in terms of providing expert advice and

19 guidance. We also do have our regulatory tools as a --

20 a regulatory backstop.

21   Is -- is that how you were envisioning

22 that? Or am I understanding the question correctly?

23   That we -- we can provide -- you know,

24 wear different hats and we can wear advisory hats, we

25 can also wear regulatory hats. And certainly those two

1 (2) things overlap a fair bit, so.

2   THE CHAIRPERSON: Thank you. Danny

3 Bayha...?

4   MR. DANNY BAYHA: Okay. Thank you, Mr.

5 Chair. I guess it was in terms of -- like, the

6 perpetual care, I guess, is for me, in the long-term.

7 As you know we're talking a long time in the future.

8 That's -- things are -- you know, could -- things --

9 governments could change, policy could change,

10 regulations could change. There's so many things

11 unknown in the future.

12   So what is probably -- is for me, would

13 be the safest thing to go ahead with this project, you

14 know, and having -- trying to -- at the same time

15 assuring the public and the communities and -- and

16 environment that there is going to be some safeguards

17 in place, assurances in place.

18   So in that sort of perspective, I guess,

19 have either of you had, Environment Canada or

20 yourselves, had any thoughts on that? Thank you.

21   THE CHAIRPERSON: Thank you, Danny

22 Bayha. DFO...?

23   MS. BEV ROSS: Bev Ross, Fisheries and

24 Oceans Canada. We are government and are at the whim

25 of the legislators, so I can't look too much further in

1 the future.

2   In the foreseeable future we have

3 legislation, almost a hundred year old legislation, the

4 Fisheries Act, that we conduct our business under. It

5 undergoes changes, as we all know.

6   And -- but as we sit here today we see

7 ourselves having the capacity and the legislative

8 backstop to, as I said, advise and regulate in the area

9 of fisheries protection. Perpetual is a really long

10 time and I can't opine too much further on that.

11   THE CHAIRPERSON: Danny Bayha...?

12   MR. DANNY BAYHA: Yeah, thank you, Mr.

13 Chair. That's all I had. Thank you for your

14 presentation.

15   THE CHAIRPERSON: Thank you. I want

16 to just make a couple quick comments. First of all, I

17 want to say that we were initially going to have the

18 city do their presentation now but because we're going

19 to have to be out in Dettah for supper and 6:00, then a

20 meeting at 7:00 and -- for a public meeting there.

21 Again, I also want to thank the presenters that

22 presented here this afternoon as well.

23   You know, it just -- sitting back here

24 for me, I mean, it's hard for me to really express

25 myself and -- and still be neutral and -- and hold the

302

1 office where I'm at. But, you know, I live in the

2 community of N'Dilo, you know. And my first time I got

3 elected to Chief was on a Tuesday in 1999, and on

4 Friday I had to go to court. DFO charged our First

5 Nation for polluting Back Bay because they put some

6 rock in a lake. And, you know, we were found guilty

7 for that. And -- and here today sometimes I wonder

8 what -- what's the mandate of your department.

9   Because, you know, we're allowing some

10 arsenic that's coming down into the lake, fish. We

11 heard what the Yellowknivies have to say and other

12 people that said about the fish, and Mr. Wah-shee said

13 it very clearly about the fish as well, you know. And

14 I see that, you know. And it's a little bit frustrating

15 sitting here because I -- you know, you wouldn't eat

16 the fish, but yet we're allowing everybody else around

17 the community to eat the fish. You know, so I -- I

18 think sometimes we have our priorities maybe not in

19 order. But I tell you it's -- it's not good.

20   But, anyway everything is recorded. You

21 know, we asked for information, we did as best we can

22 to get that information from your department and so on.

23 But we got two (2) days to make a decision and so we're

24 going to do as best we can. And we're taking whatever

25 people have said, the public and everything else, at

1 the end of the day the Board will deliberate and look

2 at everything else and then we're going to make a

3 decision.

4   And so with that, I'm going to adjourn

5 this meeting. We're going to continue on this evening

6 -- evening in Dettah. And then from Dettah, after

7 we're done that meeting over there, we're going to do a

8 closing prayer.

9   So with that I'll adjourn the meeting

10 now. Thank you.

11

12 --- Upon adjourning at 5:49 p.m.

13 --- Upon commencing at 7:19 p.m.

14

15   THE CHAIRPERSON: Good evening. Good

16 evening, Ladies and Gentleman. If I can get my staff

17 to be quiet over there. You might as well talk you

18 have to go outside.

19   Anyway, I just want to say good evening.

20 My name is Richard Edjericon, I'm the Chair for the

21 Mackenzie Valley Impact Review Board. Tonight we're

22 having a public meeting here in the community regarding

23 Giant Mine Remediation Project, the Environmental

24 Assessment Hearing. The file number for this is EA

25 0809-001.

304

1   Before we do anything I just want to

2 start off the meeting with an open prayer. I'm going

3 to ask for Eddie Seeke (phonetic) to do the opening

4 prayer for this evening. Come on up to the podium.

5

6   (OPENING PRAYER)

7

8   THE CHAIRPERSON: Mahsi, Eddie Seeke,

9 Elder. I just want to recognize and say, Mahsi, to the

10 host Chief Eddie Sangris for allowing us to come into

11 your community and to -- to have this public hearing.

12 And to all the Chief and council Elders and members of

13 the Yellowknives Dene First Nation.

14   Good evening. My name is Richard

15 Edjericon. I'm the Chair of the Mackenzie Valley

16 Environmental Impact Review Board. We are here to

17 listen to what you have to say about the proposed Giant

18 Mine Remediation Project. This development has been

19 jointly proposed by the Federal Government -- the

20 Federal and Territory Government with Aboriginal

21 Affairs and Northern Development Canada as the lead

22 department.

23   The proposal includes the freezing of

24 237,000 tonnes of arsenic trioxide dust in underground

25 chambers, surface management of several millions tonnes

1 of tailings, water management, and release of treated

2 effluent. It also includes the active management of

3 the facilities necessary for these actions forever.

4   We have reached one (1) of the final

5 stages of this Environmental Assessment, the Public

6 Hearing. Over the week we had a public meeting in

7 Yellowknife. Last night we met till 11:00. Again, we

8 ask that you do your best to help the Review Board to

9 understand your views about the proposed development

10 and potential environmental, social, economic, and

11 culture impacts and your view of the potential

12 significance of these impacts.

13   The Review -- the Review Board will

14 fully consider these views while it's in deliberation

15 on its decision in this Environmental Assessment. Once

16 that decision is made the Board will prepare a report

17 of an environmental assessment and send it to the

18 Minister of Aboriginal Affairs and Northern Development

19 for his consideration and that of other responsible

20 ministers, including the Territory government.

21   Before we go any further, I would like

22 to introduce our Board Members, and then to introduce

23 our staff and counsel as well. So I'm going to go to

24 my far left. I'll -- introduce yourself.

25   MR. JOHN CURRAN: Thank you, Mr.

1 Chairman. John Curran from Yellowknife. And thank you

2 to the community of Dettah for hosting us this evening.

3   MR. PERCY HARDISTY: Mahsi, Mr. Chair.

4 I'd like to thank the -- Dettah for inviting us over

5 here just to listen to the people. So my name is Percy

6 Hardisty and I'm from Fort Simpson.

7   MR. JAMES WAH-SHEE: My name is James

8 Wah-shee, I'm a Board Member from Behchoko. Thank you.

9   MR. RICHARD MERCREDI: Yeah, my name is

10 Richard Mercredi, I'm a Board Member from Fort Smith.

11 Thank you, Mr. Chair.

12   MS. RACHEL CRAPEAU: I'm Rachel

13 Crapeau, I'm a Board Member. And I live here in

14 Dettah.

15   MR. DANNY BAYHA: Mahsi. Danny Bayha

16 from Deline, the Sahtu. (NATIVE LANGUAGE SPOKEN)

17

18

19 OPENING REMARKS AND INTRODUCTION BY THE CHAIRPERSON:

20   THE CHAIRPERSON: Thank you. The

21 Review Board is a co-management body established by the

22 Mackenzie Valley Resource Management Act. Each Board

23 Member brings their knowledge, experience, and values

24 to the Board's decision-making process.

25   Our Members are Northerners nominated by

1 First Nation Aboriginal governments and by the

2 Territorial and Federal governments. Our goal is to

3 make decisions that will benefit the North for all

4 residents and for future generations.

5 I have some additional comments on

6 today's proceedings that I hope will help make sure

7 everything goes smoothly. We have limited time and the

8 Review Board wants to hear what everybody has to say.

9 Also, at the door we have the agenda for -- for the --

10 our public hearing for the whole week. And I believe

11 my -- our staff over here has that information if you

12 want to take a look at it.

13 Moving forward, the Review Board will be

14 producing an official transcript of this hearing. This

15 tran -- transcript will be available through our

16 website in the Public Registry for this Environmental

17 Assessment, and it will be searchable if you go on the

18 web.

19 We also have simultaneously translation

20 into Tlicho. On your headsets we have English channel

21 number 1, translation on -- and translation on channel

22 2 -- sorry, English on channel 1, and channel 2 will be

23 the Tlicho language. I also ask you to speak slowly

24 for the interpreters. Also, when you come up if you

25 could state your name for the record and clearly.

1 Also, if you wouldn't mind, maybe turn off your cell

2 phones or put it on vibrate or put it in silent mode.

3   The project that the Review Board has

4 assessed in the past has not been a remediation

5 project. To avoid confusion, I will take a moment to

6 remind parties about the focus of the assessment we are

7 conducting.

8   All of us here today know about the --

9 know about and deeply regret the contamination of the

10 land and water that continued for the -- for many years

11 when Giant Mine was running. The Yellowknives have

12 poten -- powerfully expressed the effects this has had

13 on their traditional lands and on their people.

14 Everyone in the room is sorry about has -- what has

15 happened and wishes it was otherwise.

16   The contaminant legacy of Giant Mine

17 happened before the land claim created the Mackenzie

18 Valley Resource Management Act. The Act gave us a

19 system that is better than what we had before. It's

20 better, share -- shares decisions making with

21 aboriginal people; it involves the public more often

22 and more directly. I would like to think and hope that

23 wide spread contamination that -- like what happened in

24 -- under the system will not happen again today.

25   One of the reasons we conduct

1 environmental assessments like this is to make careful

2 decisions and -- and we -- and those who follow us will

3 not have to be sorry for the fut -- for our future

4 generation.

5   That said, I want to remind you about

6 the scope of the project. We are not here assessing

7 the impacts of Giant Mine, we are assessing impacts of

8 the proposed remediation project, that is what this

9 Board must decide on. If you're going to present

10 materials about this impact of Giant Mine, you must

11 make it very clear in how it relates to the remediation

12 project, we are looking for that.

13   In 2008 the Review Board accepted the

14 Developer's had -- sorry, accepted that the Developer

15 has done a thorough job of looking at alternatives and

16 that the current Environmental Assessment would focus

17 on the proposed project freezing the underground

18 arsenic in place.

19   The Developer has made it clear on the

20 public record that doing this would be -- this would

21 not prevent changing to a different method if better

22 technology emerges in the future, but it is -- but that

23 it is current and remains keeping it frozen forever.

24   So tonight we had a meeting in

25 Yellowknife at the Tree of Peace Monday, Tuesday,

310

1 today. And on the agenda for today we were to come out

2 to -- to the Chief Drygeese Centre here in Dettah and

3 it was going to start at 7:00. So we're going to go to

4 the Developer for their presentation. And also like

5 last night, I had mentioned that if you could also put

6 up the couple slides in regards to the diffuser as

7 well.

8   And I encourage all members of this

9 community, young and old, to come up and say your name.

10 And if you could help keep it brief, but what we want

11 to hear, again, is to listen to you, that's why we're

12 here.

13   And I mentioned that earlier, you know,

14 we want to gather all that information so that when we

15 sit down as a Board we'll look at everything and then

16 we listen to the proponents, we listen to the parties,

17 then we're going to listen to all the people in the

18 community, then we look at the evidence on the record.

19 The Board will meet. Then from there we'll look at

20 making a decision.

21   But -- I think we have a translation

22 problem Are we having any technical problems here?

23 I'm not sure what they missed, or if they heard what

24 was said.

25   As they sort that out I was going to

1 ask, maybe Chief Sangris if he wants to say some

2 welcoming comments as well. If you could come up to

3 the podium before I go to the presenters.   That's

4 good? Okay, go ahead.

5

6 OPENING COMMENTS BY CHIEF SANGRIS:

7   CHIEF EDDIE SANGRIS: Mahsi, Chairman.

8 (NATIVE LANGUAGE SPOKEN).

9   Good evening and welcome to Chief

10 Drygeese territory -- traditional territory of

11 Yellowknife Dene. I would like to thank the Review

12 Board for including Dettah in their choice of venue for

13 this hearing.

14   Giant Mine is the most significant

15 environmental disaster in our people's history. And

16 the Yellowknife Dene must be acknowledged for our stake

17 in this remediation project and the future of our land.

18 Think back the last three (3) days, I think it was a

19 productive last three (3) days so far into the -- at

20 this hearing.

21   Now the Yellowknife Dene have made

22 presentations and posed questions to the Developers.

23 And we look forward to the progress that will come out

24 of our engagement. But I also would like to take a few

25 minutes to elaborate on some of the comments that YKDFN

1 has made in the hearing so far.

2

3   (INTERPRETED FROM TLICHO INTO ENGLISH)

4

5   CHIEF EDDIE SANGRIS: Things we're

6 discussing today is very important, the wildlife and

7 the fish. We'd like to have a good livestock of fish

8 in the Baker Creek, how things used to be before the

9 mine -- and we grow everything. Once I had plant

10 before and today how they going to fix the mine? And

11 they told us how -- how they're going to monitor the

12 water and how they're going to re-treat the water. And

13 they had the plant and they set the plant out.

14   But things that were put forward and

15 recommendations were put forward -- and take the

16 recommendation forward and seriously work on those,

17 you, as a Board here. And you've got to tell them what

18 recommendation that will really -- it's important for

19 us that all the water will be clean and fresh again to

20 use, and that goes back to Great Slave Lake, that we'll

21 have freshwater. And things that -- it's important

22 that you guys to think about.

23   And all that fishes that need

24 monitoring, that you guys will tell the development

25 that. And how the fish spawns and -- and how all the

1 fish runs in the river and they go back down to Great

2 Slave Lake and how things were before that we'd like to

3 have the freshwater.

4   We'd like them to monitor the land well,

5 not only the water, also air quality. All -- all of

6 those things that's important for us that you guys will

7 tell them and they -- they take our recommendations.

8 You guys got to put some kind of guideline for them to

9 follow that we -- and we agree to it then the project

10 would -- would begin.

11   The Review Boards and how Giant Mine

12 recommendation, the project, and our culture and what

13 we're going to be saying that you will listen to our

14 view. That we, as a Dene people, how we live on the

15 land, that things will be good for long time to come.

16

17   (INTERPRETATION CONCLUDED)

18

19   CHIEF EDDIE SANGRIS: Also for future

20 use, the Developer looking for more support for their

21 project by promising ideas of the future that allows

22 people access to the site. And yet, we know from the

23 scope of their remediation plan that they merely intend

24 to re -- re-condition the site to industrial standards,

25 that is not good enough for us.

 1   In the beginning, the Giant area wasn't

 2 classified as -- as an industrial area by our people.

 3 Research must be taken to further -- to find better

 4 alternatives to the frozen block method. YKDFN must be

 5 included in this research. It must have a say in what

 6 happen, next steps are put in place before they can

 7 happen.

 8   There are many elements of this project

 9 the Developer is asking the YKDFN and other interested

10 parties to swallow based on good faith and hope, not an

11 empty promise.

12   The YKDFN has accepted the frozen block

13 method that will be put in place for now, but this

14 Environmental Assessment must be about putting

15 measures, an obligation in place to making sure that

16 this is not what we are left with forever.

17   The Yellowknife Dene are traditional

18 people of this territory, we have something to say.

19 The time is long overdue for our voices to be heard.

20 We want commitments and we want results. We want to be

21 a part of this decision making because our people will

22 be the subject of the impacts of those decisions.

23   We want a commitment for our Giant Mine

24 Advisory Committee, or GMAC, to assume a greater role

25 in oversight. We will take on the task of looking for

1 alternatives, long-term solution to this Giant mess.

2 This means getting long-term funding agreement from

3 AANDC. Our people are engaged and we will be the ones

4 to see this project into the future.

5

6   (INTERPRETED FROM TLICHO INTO ENGLISH)

7

8   CHIEF EDDIE SANGRIS: We, as a

9 committee, on the GMAC how things is going to be we --

10 we have a committee in place that we'd like to have

11 funding in place for them -- for the committee to run

12 as a government. Our land, we see how that remediation

13 and how the project is going to run that will be up to

14 the committee. It's been long overdue.

15   And how disturbed the land has been and

16 the way we have been told. The land has been disturbed

17 and how it's -- it's going to be worked on and they

18 never did consult with us. We don't want none of those

19 again, they need to be informed. Our members have

20 suffered a lot because of the Giant mine and we need to

21 fix our problem and how things we can be healthy again

22 from here to a long-term solutions.

23   How the impact is going to be later on,

24 that we need to be -- inform us on all things. And we

25 -- this is fifty-five (55) years that our Member had

1 suffered and how we can be helped in the community with

2 a royalty or benefit, some kind of benefit that...

3

4   (INTERPRETATION CONCLUDED)

5

6   CHIEF EDDIE SANGRIS: It's opportunity

7 for our members to voice their concerns to the Review

8 Board. I hope that you will take this opportunity and

9 listen to the comments and stories of our members. I'm

10 sure they have a lot to say on how we can remediate

11 (phonetic) the problems of the past to look for the

12 betterment of our future generations.

13   Mahsi, Board Members, for allowing me to

14 take the time to address this issue. Mahsi cho.

15   THE CHAIRPERSON: Mahsi, Eddie

16 Sangris, for your opening comments. And before I go to

17 the presenters, again, I think the Chief had mentioned

18 that there might be people a little bit shy coming up

19 to speak because of the way that it's all laid out and

20 so on. But always remember what the Elders used to say

21 that, If you got an issue or concern, you always speak

22 from your heart. You know, so I encourage young

23 people, residents from Dettah, N'Dilo, to come up and

24 talk about, you know, the impacts of this project

25 development that's happening in their own backyard.

 1   So before we -- we get people to start

 2 coming up, I'm going to go to the Developer to do a

 3 presentation. And -- and I also mention that -- a

 4 couple slides on the diffusers and maybe you could just

 5 briefly talk about that as well.

 6   So, I want to go to the Developer so

 7 people here understand what's happening in their own

 8 backyard. Thank you.

 9

10 PRESENTATION BY THE DEVELOPER - DEVELOPMENT OVERVIEW:

11   MS. JOANNA ANKERSMIT: Thank you, Mr.

12 Chair, and thank you, Chief, for the warm welcome.

13 Good evening. My name is Joanna Ankersmit. I want to

14 begin by thanking the -- the community for inviting us

15 here and for the absolutely delicious meal, which after

16 a long day today was -- was very welcome and -- and we

17 appreciate the excellent food that you provided to us.

18   As I mentioned, my name is Joanna

19 Ankersmit and I've been working with the -- the

20 government team on making Giant mine safe since 1999.

21 I'm pleased to -- to be here again with you in Dettah.

22 I see some familiar faces from our meeting earlier this

23 spring and many new faces, which is encouraging. I

24 want you to know the team appreciates you coming here

25 tonight and your willingness to share with us and the

1 Review Board your points of view on this remediation

2 project.

3   It is good for us to hear about what

4 this land used to be like, to learn from your

5 traditional knowledge, and to listen to your

6 descriptions of the past and your hopes for the future.

7   THE CHAIRPERSON: Can I just stop you

8 for a second here. Are you guys going to do your

9 presentation on -- on the projector?

10   MS. JOANNA ANKERSMIT: Yeah.

11   THE CHAIRPERSON: Okay. That's coming

12 up?

13   All right. Thank you. Continue on,

14 please.

15   MS. JOANNA ANKERSMIT: Thank you, Mr.

16 Chair. There are long-standing concerns about the

17 Giant mine site. The remediation team is also

18 concerned about the site. In particular, its current

19 state. The mine is old, as you know, and is -- and is

20 deteriorating.

21   We assure you that is being carefully

22 managed and monitored, but we need to make improvements

23 at the site that will last over the very long term, but

24 we need to start making those changes soon.

25   Before I ask my colleagues to speak and

1 give an overview of -- of the project so that you are

2 under -- understand what we are proposing to do, I want

3 to commit to you that we are here as a project team and

4 we are committed to making the Giant mine safe for the

5 people and for the environment. Your meaningful

6 involvement in the process means a lot to us. We are

7 asking to get started with our plan as it will take

8 time. We continue -- we will continue to work with you

9 in your community to protect human health and safety in

10 the environment at the Giant Mine site.

11   I'd like to turn over to my -- turn it

12 over to my colleague Ray Case to say a few words and

13 then we'll get on with the show.

14   DR. RAY CASE: Thank you, Joanna, and

15 thank you, Chief Sangris, and the people of Dettah for

16 hosting this meeting. My name is Ray Case. I'm the

17 Assistant Deputy Minister with Environment and Natural

18 Resources and I'm the Government of Northwest

19 Territories lead for the Giant Mine Remediation

20 Project.

21   I've been a resident of Yellowknife

22 since 1964 and I share the concerns amongst the people

23 of Yellowknife about the state of the Giant mine site

24 and the risk that it poses to the health of the people

25 and the environment in the area.

 1   I've worked with many of the people here

 2 from Dettah and have had the opportunity to -- to meet

 3 with many of you in the past and I know that you have

 4 heartfelt views and have very insightful wisdom to

 5 share with us and I encourage you and I -- to come

 6 forward and provide that and I look forward to hearing

 7 your views on what we propose to do to address the

 8 risks at the Giant mine site.

 9   With that, I'll turn it over to my

10 colleagues, Mike Nahir and Adrian Paradis to give you a

11 quick overview of the proposal.

12

13   (BRIEF PAUSE)

14

15   MR. MICHAEL NAHIR: Okay. Thank you,

16 Mr. Chair, and people -- and panel, and -- and people

17 from Dettah. My name is Mike Nahir and I'm the Senior

18 Project Manager and Chief Engineer for Aboriginal

19 Affairs and Northern Development Canada.

20   I have eighteen (18) -- I need a

21 headlamp. I have eighteen (18) years experience as a

22 project engineer and project manager on the remediation

23 of abandoned mines, specifically in Northern Canada.

24   This is my colleague too, over to my

25 right, Adrian Paradis, and he'll be speaking after. He

1 has over ten (10) years experience working on

2 regulatory matters in the Northwest Territories and

3 he'll be talking right after me on management and

4 oversight.

5   I wanted to say that a project of this

6 complexity and size requires a national effort, drawing

7 upon staff and experts in Yellowknife, Vancouver,

8 Edmonton and Ottawa. We draw upon international

9 experts for the technical advisor team, the engineering

10 design team, and the independent peer review panel.

11   We are here to discuss the environmental

12 assessment of the project, which is the remediation of

13 the Giant mine. It is an abandoned mine and a

14 contaminated site which the governments are truly

15 committed to ensuring the protection of human health

16 and of the environment. We look forward to discussing

17 this project today and are certainly anxious to begin

18 the hard work of remediating the site.

19   As I said, the Giant mine remediation

20 project team is committed to remediating the site.

21 This team has carried many investigations and

22 assessments over the last twelve (12) years and now we

23 are confident that we have the right plan to protect

24 human health and public safety in the long-term. There

25 are certainly many more decisions and design decisions

322

1 that need to be made. And with the help of the EMS

2 process, we'll be involving interested parties. So

3 this project is about making a significant improvement

4 to the environment.

5   The co-proponents are both the

6 Government of Canada and the Government of the

7 Northwest Territories. Aboriginal Affairs is the

8 overall project manager and will be assisted by public

9 works which will look after contracting the project

10 design and construction services we require.

11   We've put together a team including some

12 of the world's foremost experts on mine site

13 remediation and they're present here at the hearing.

14 SRK and SENES are the technical advisor for the project

15 team and since 2000 have provided technical support for

16 the closure options and the remediation plan. They are

17 both internationally recognized expert firms in mine

18 site remediation and risk assessment.

19   AECOM and Golders are providing the

20 engineering. They are large international firms well

21 recognized and highly qualified to provide engineering

22 services in mine site remediation.

23   Deton'Cho Nuna is doing an excellent job

24 of providing site care and maintenance, ensuring public

25 safety, and environmental protection.

 1   As many of you know the operations of

 2 Giant mine started in 1948 and went on for

 3 approximately fifty (50) years when Royal Oak went into

 4 receivership in 1999 and ultimately bankruptcy in 2005.

 5 The site is in a very deteriorated state and so there

 6 are many human health and environmental concerns that

 7 need to be managed in order to protect people and the

 8 environment.

 9   The governments of Canada and Northwest

10 Territories are responsible for current site

11 management, doing the remediation work, and for

12 providing long-term care. A Developer's assessment

13 report was prepared by the governments to evaluate the

14 potential negative effects of executing the remediation

15 project.

16   The DAR contains main -- the main report

17 and fifty-three (53) supporting documents which

18 describes the existing conditions, the remediation plan

19 and the assessment of short and long-term conditions.

20 The plan calls for fifteen (15) years of active

21 remediation and ten (10) years of stabilization which

22 will then merge into long-term management.

23   This is a picture that shows some of the

24 main components of the site that we'll be discussing

25 now. The mine is located within the city limits of

1 Yellowknife and covers an area of approximately 150

2 hectares. I think -- how many football fields is that?

3   Sixteen hundred (1,600) football fields. There are

4 many buildings that are hazardous. The largest concern

5 is the roaster, because it is heavily contaminated with

6 arsenic and asbestos.

7   The site treats over 500,000 cubic

8 metres of contaminated mine water annually. There are

9 four (4) tailings ponds with 16 million tonnes of

10 tailings, eight (8) pits with thirty-five (35) openings

11 to the underground, and Baker Creek which runs through

12 the site and contains arsenic contaminated sediments.

13   Lastly, and most importantly, are the

14 fourteen (14) chambers and stopes contained --

15 containing 237,000 tonnes of arsenic trioxide dust

16 which is in this -- approximately in this yellow-

17 hatched area underground. This is a waste from the

18 processing of ore that was mined and is 60 percent pure

19 arsenic. So the project being assessed is the

20 execution of this remediation plan to deal with these

21 issues and hazards.

22   The overall goal of the remediation plan

23 is to protect human health, public safety, and the

24 environment. As we had stated in the Developer's

25 assessment report, the specific objectives of the

1 remediation plan are to, first, prevent in the long-

2 term the release of arsenic in the underground dust to

3 the environment.

4   Second, clean up the surface of the site

5 so that it is available for other uses. Decisions on

6 how these uses will be -- on what these uses will be

7 will be made together with stakeholders.

8   The third objective is to reduce risks

9 by removing buildings, closing mine openings, and get -

10 - getting rid of other hazards at the mine.

11   Fourth is to minimize the release of

12 arsenic from the surrounding site;

13   And the fifth is to rehabilitate and

14 restore Baker Creek to a more natural condition.

15   Most of the mine has typical mine site

16 remediation issues, but what I want to describe is the

17 key concern at the site, which is the arsenic trioxide

18 dust stored in the fourteen (14) underground chambers

19 and stopes.

20   The rock that was mined at the Giant

21 mine includes high levels of naturally occurring

22 arsenic. The roasting of ore produced the arsenic

23 trioxide dust waste. The arsenic dust is stored

24 underground in fourteen (14) purpose built chambers and

25 mined out stopes that are typically as big as a ten

 1 (10) story building.

 2   Arsenic can get -- can be dangerous to

 3 both people and the environment if too much of it gets

 4 into the water, land, or in the air. The main concern

 5 with the arsenic trioxide dust at the Giant mine is

 6 that the arsenic can dissolve into groundwater and flow

 7 to Great Slave Lake if not controlled. In the interim,

 8 this issue is being managed by keeping the water level

 9 in the mine below the dust and collecting and treating

10 groundwater. We also inspect the accessible bulkheads

11 that keep the dust in the chambers. There are a number

12 of bulkheads that are inaccessible and that is a

13 concern.

14   The remediation plan calls for the long-

15 term stabilization and containment of the arsenic

16 contaminated dust by securing and stabin -- stabilizing

17 the underground workings and then freezing all the dust

18 and the chambers. Just to -- probably most of you are

19 familiar with this, but just as a picture here, this is

20 a very -- sort of a cartoon of the -- of the layout of

21 it and these are the -- representative of the chambers

22 and stopes and the -- this is what the freeze system

23 would look like and the freezing conditions after

24 underground within the rock.

25   Over the long-term these frozen blocks

1 will prevent arsenic from getting out of the chambers

2 and into the environment. A small part of the middle

3 of the site will need to be managed and it will be off

4 limits so that we can continue to look after the

5 thermosyphons.

6   So the key benefits of our plan related

7 to arsenic trioxide dust is that it prevents the

8 release of arsenic into the groundwater. It's very

9 easy to monitor and very easy to maintain over the

10 long-term.

11   For Baker Creek I wanted also to

12 describe that the Baker Creek does not meet the

13 standard for closure. The water and sediment in Baker

14 Creek contain high carcentra -- high concentrations of

15 arsenic. There is a concern with the stability of the

16 creek, and the flow capacity doesn't meet the high-flow

17 requirements.

18   The design concept calls for restoring

19 the habitat in the creek by rerouting and rebuilding a

20 few sections of the creek which will also improve its

21 ability to pass large volumes of water. We are

22 awaiting the results of the sediment study and are

23 working with Department of Fisheries and Oceans to

24 determine whether contaminated sediment should be

25 removed from the other sections.

 1   The benefit of this plan for Baker Creek

 2 is that it reduces the risk of flooding, improves

 3 aquatic habitat in Baker Creek, and improves the

 4 aesthetic value of the creek.

 5   As I've said, there are eight (8) small

 6 and medium-sized mined out pits, as well as thirty-five

 7 (35) openings to the underground that are safety

 8 hazards. The plan calls for backfilling a few of the

 9 pits and surrounding the others with berms or fences to

10 prevent access. All mine openings will be sealed. So

11 the benefit here is improved public safety by stopping

12 access to the pits.

13   Over the many years of operation, quite

14 a bit of soil got contaminated with arsenic and spilled

15 fuels. And so you can see these areas on this picture

16 in red. There are some tailings scattered as well

17 throughout the site outside of the tailings ponds.

18 These soils and tailings will be excavated and treated

19 and contained appropriately.

20   The green areas shown here are the only

21 areas where contaminated soil will be left, only

22 because it is very deep and it makes more sense to

23 cover it with clean soil than try to dig up all of it

24 and leave a big hole.

25   So the benefits to the plant for dealing

1 with contaminated soil is it improves the quality of

2 habitat on site, and it reduces risks to the public and

3 animals, which provides more options for future land

4 use.

5   There are four (4) large tailings areas

6 located on surface covering a large area of 95

7 hectares, or three hundred (300) -- approximately three

8 hundred (300) football fields. We were trying to

9 figure that out earlier today. These tailings,

10 fortunately, are not acid generating, but do contain

11 low-solubility arsenic in the water and within the

12 tailings.

13   As part of the ongoing site management,

14 any water that is collected in the mine, it is -- is

15 treated to protect the environment. The remediation

16 plan calls for tailings to be covered with two (2)

17 layers, then graded for ditches and spillways. The

18 tailings covers will be revegetated and then, as well,

19 available for other uses.

20   So the benefit for this plan is that

21 there will be no direct contact between tailings and

22 people or animals. It improves the long-term air

23 quality and then provides for more options for future

24 land uses.

25   There are over a hundred buildings and

330

1 associated infrastructure, a few of which are

2 contaminated with arsenic and asbestos. The roaster is

3 a heavily contaminated building which our engineers

4 have advised poses an unacceptable risk of failure and

5 needs to be properly demolished as soon as possible.

6   The reme -- the remediation plan calls

7 for proper demolition and disposal in a landfill, as

8 well as in frozen -- in the frozen underground. The

9 benefits are that it improves how the site looks and

10 reduces safety risks to public and the wildlife.

11   The current water treatment plant does

12 an adequate job of meeting the current standard;

13 however, it is not efficient, and we want to meet a

14 much higher standard that is safe for community uses

15 and is protective of the environment.

16   A new water treatment plant will be

17 constructed to collect and treat contaminated surface

18 mine water. The discharge will be to North Yellowknife

19 Bay through diffuser and a mixing zone. This is

20 instead of discharging to Baker Creek, as is done

21 today, to allow to repair as best as possible. The

22 monitoring of the safety of the ice will be coordinated

23 with the City Fire Department. This criteria will be

24 established consistent with the City standards to be

25 protective of safety for winter recreation.

 1   We have an extensive monitoring program

 2 for water, and it will be expanded to include all

 3 activities such as ice thickness, air, and fish. The

 4 benefit to this plan is that there will be much less

 5 arsenic into Baker Creek and significantly less arsenic

 6 into Yellowknife Bay.

 7   In addition to the health and

 8 environmental benefits of the remediation program,

 9 there will also be many economic benefits to

10 Aboriginals and Northerners, both in terms of jobs and

11 spending on goods and services. This is one (1) of the

12 key prior -- priorities of the Government of Canada as

13 well as the Government of Northwest Territories.

14   This is a picture of what the -- we

15 expect the site to look like after remediation. Once

16 the main remediation activities are over most of the

17 site will be available for other uses. There'll be

18 areas available for recreational and residential uses

19 depending on community interest and input.

20   A small area near the middle of the

21 mine, approx -- approximately there, will require long-

22 term management. The activities in this area will

23 include running the ground freezing system and

24 treatment of contaminated water. There'll be extensive

25 monitoring -- monitoring of these activities to make

1 sure they're working and to ensure that the land and

2 water are safe.

3   So in summary, I wanted to say that the

4 Government of Canada and Northwest Territories are

5 confident that the Giant mine remediation project will

6 result in many positive effects by improving and

7 protecting the environment. This is not an assessment

8 of a new development, but is rather the repair of an

9 old contaminated one. The project improves the

10 environment immediately. The project minimizes risks

11 and the needs for site management in the long-term.

12 There may be some temporary negative effects during the

13 site remediation activities. However, these will

14 affect only small areas and will be short-lived and can

15 be managed.

16   Thank you, Mr. Chair, and I'll -- I'll

17 turn this over to Adrian Paradis who will provide an

18 introduction on the management and oversight program.

19

20   (BRIEF PAUSE)

21

22   MR. ADRIAN PARADIS: Adrian Paradis on

23 behalf of the project team. Thank you, everyone, for

24 coming out tonight. I know you have many things to do,

25 but it's really important, I think, that you're here to

1 express your views and for us to hear and listen to

2 what you have to say.

3   I'm going to be brief. I don't think

4 you want to listen to talking heads. I'm going to

5 provide a brief update on perpetual care, adaptive

6 management, and what is called the Environmental

7 Management System or the EMS, as well as public -- some

8 of our public engagement to date and oversight on the

9 project going forward. These topics have been

10 discussed throughout the week and will be continued to

11 discuss tomorrow and Friday at the Tree of Peace in --

12 at Yellowknife.

13   Perpetual care -- perpetual care, you've

14 heard a lot about it. It consists of two (2) distinct

15 components. One (1) is the actual physical systems, the

16 frozen block, the water treatment plants that are

17 required to maintain the arsenic and maintain the

18 safety on the site. The second half of the system is

19 the long-term management and oversight of these

20 systems.

21   The frozen block was designed to be

22 robust over the long-term and easy to monitor. That

23 said, with the constructive inputs from the YKDFN and

24 other parties to the Environmental Assessment, we have

25 spent additional time and are thinking about how to

 1 manage the perpetual care on the site and have

 2 committed to developing a perpetual care management

 3 plan.

 4   At present this includes records

 5 management, scenario analysis, communication with

 6 future genera -- generations, land use constraints and

 7 transitional planning.

 8   We have been working on what is called

 9 an environmental management system for the project.

10 Environmental management system is simply put a

11 monitoring -- a monitoring and management plan to

12 manage the site. It develops triggers, thresholds,

13 criteria for success. Are we doing what we said we're

14 going to do, how do you monitor it, how do you manage

15 it, and then how do you report on it.

16   It supports good decision-making. It

17 supports input into the project. It supports

18 communication and it supports engagement.

19   The other key aspects to it is that it

20 is audible. It allows third parties to come in and

21 check, and confirm that we are doing what we said we

22 are doing.

23   Lastly, it allows for stakeholders, the

24 YKDFN, the North Slave Metis, Alternatives North, City

25 of Yellowknife, members of the public, to have input

1 into the elements of these monitoring and response

2 plans.

3   You've seen us before in your community

4 at different times and different places. We are here

5 infrequently at times, or more frequently at other

6 times, depending upon where we're at in our planning

7 and where we're at in our thinking of the day. A lot

8 of it is related to milestones of the project. Is it

9 the arsenic trioxide management plans in the early

10 2000, is it with the development of the Developer's

11 assessment report, and the subsequent environmental

12 assessments since 2010?

13   All that is to say we have been around,

14 but we are expected and we hope and we beg your

15 indulgence over the years to come because we hope to be

16 here in the community -- not hope, we want to be, and

17 we need to be in the community much more often in the

18 mon -- years and months to come to make the project a

19 success. So we hope that when we come we will get a

20 turnout like we do tonight so we can have -- talk about

21 how to go forward.

22   Throughout our engagement, and through

23 the environmental assessment process, we have learned

24 and we've heard that the existing oversight mechanisms

25 need to be strengthened. They need more community

1 input. We have committed to establishing an

2 independent oversight board. That discussions will

3 happen a lot more over the next two (2) -- two (2) to

4 three (3) days, but we believe that with the

5 establishment of this Board there'll be greater

6 confidences in our ability and our success of this

7 project.

8   I think with that, Mr. Chair, I'll be --

9 I'll end our presentation, and thank you for --

10 everyone for your time and patience.

11

12   (BRIEF PAUSE)

13

14   THE CHAIRPERSON: Maybe to the

15 Developer, if you wouldn't mind touching on the

16 diffuser, as well, if you've got a slide or two (2) on

17 that.

18   MR. ADRIAN PARADIS: The slide review -

19 - if you can give me a moment, I will bring up -- bring

20 up something on the present -- on that.

21   MR. DARYL HOCKLEY: Mr. Chairman, maybe

22 while we're waiting for the slide could I start

23 introducing the diffuser for people?

24   THE CHAIRPERSON: Yeah, absolutely.

25 Maybe if you could just do -- I was going to suggest

1 maybe before we start, we're going to do introduction

2 as well. We never had a chance to do it on -- on that

3 side of the table.

4   MR. DARYL HOCKLEY: Okay. So -- so my

5 name is Daryl Hockley. I'm a technical advisor to the

6 project team. I've been working for twelve (12) years

7 on the Giant Mine coming to -- to Yellowknife and to --

8 many times to Dettah, and many times to N'Dilo, to work

9 with people on the -- on the Giant Mine, and I'm happy

10 to be here again, and to -- to hear from the people

11 again tonight. Thank you for having us.

12   MR. BRUCE HALBERT: And just to

13 complete the introductions at the head table, I'm Bruce

14 Halbert. I'm also on the techni -- technical advisory

15 team, and like Daryl I've been involved in the project

16 since 2000, and I've been fortunate to be in your

17 community previously, as well.

18   MR. DARYL HOCKLEY: So the -- this is a

19 slide of the diffuser system. I'd like to explain a

20 bit about the diffuser. Currently water is taken from

21 the mine, and is treated in a -- in a treatment plant

22 that's just off the picture here.

23   It's a very old treatment plant, so even

24 after the water is treated, about 300 kilograms of

25 arsenic go into Baker Creek every year. Now, how much

1 is 300 kilograms, five hundred (500) -- okay, we won't

2 ask Bruce. But we'll -- we think that the three (3) of

3 us, is that's about 300 kilograms per year of arsenic

4 into Baker Creek from the old treatment plant.

5 That treat -- that water comes down

6 Baker Creek, comes out -- where's -- right there --

7 comes out the mouth of Baker Creek here into Back Bay

8 and then it -- it mixes without any control -- no

9 control over what happens to it, it just comes out into

10 Back Bay now -- that's what happens now.

11 We want to start by building a much

12 better treatment plant. It will still catch all the

13 water from the mine it -- but it will be a better

14 treatment plant. So it will only put about 150

15 kilograms of arsenic per year in the water. So that's

16 Bruce and half of Adrian, okay, 150 kilograms per year,

17 about half.

18 But we need that treatment plant to run

19 all year long. So we can't put that water into Baker

20 Creek because Baker Creek freezes in the winter. So

21 instead, we want to put that water directly into the

22 lake.

23 How to put the water into the lake? The

24 way engineers do this when they put water into a lake

25 is they use a -- something called a diffuser. A

1 diffuser is -- is a mixing machine. It takes the water

2 and it squirts it out in many different directions.

3 About eighty (80) little -- eighty-one (81) little

4 pipes squirt the water up into the air and mix it.

5 Sorry, twenty-eight (28) little pipes shoot it up into

6 the air --

7   MR. BRUCE HALBERT: Into the water.

8   MR. DARYL HOCKLEY: -- into the water,

9 yes, into the water. Twenty-eight (28) pipes mix into

10 the water and it mixes in.

11   Engineers like diffusers because they --

12 we can control the mixing. We know that all the water

13 gets mixed in a very small area around the diffuser.

14 And the size of the mixing zone, is what we call it, in

15 this case is -- is 81 metres long by 15 metres long.

16 And 15 metres is probably from me to the Chairman, and

17 100 metres is probably from us to that brown house out

18 there. Roughly? Yeah. So that's how big this

19 diffuser would be. So engineers think that's a small

20 mixing zone.

21   Where we -- where we put the diffuser

22 still needs to be determined by further studies and --

23 and we think also further discussion with -- with the

24 people. This is the proposed location now. And in

25 order to do an environmental assessment, we have to

1 propose a location so it can be assessed. This is the

2 proposed location now, but we are also doing more

3 studies. There will be many more studies this winter

4 under the ice to see where the water flows, how fast

5 the water flows under the ice. Only when we have all

6 that science will we be able to pick the best place for

7 the diffuser.

8   Of course, you all know -- Dettah is way

9 down here, but you all know D'Nilo is right there.

10 We're sure the people of D'Nilo will -- will certainly

11 want to have some input into where that diffuser goes.

12 But when we have the science, the intention is to talk

13 to people and -- and try to get agreement on the best

14 location for that diffuser.

15   But -- so again -- so the water

16 treatment will be here, then a long pipe running over

17 the land, then a pipe going under the water on the

18 bottom of the water to the diffuser here; and that's

19 the mixing zone, the 81 metre by 15 metre mixing zone.

20 Thank you.

21   MR. ADRIAN PARADIS: Do you -- would

22 you want us to expand upon that, or is that a

23 sufficient place to end? Thank you.

24   THE CHAIRPERSON: Maybe you could turn

25 the lights on. Okay. Before we start I just want to

1 thank the Developer for their presentation and maybe

2 throughout the evening if you hear me saying the -- the

3 Developer, basically the Developer is Aboriginal

4 Affairs and Northern Development Canada and the

5 Government of the Northwest Territories, so -- and

6 they're AANDC and GNWT. So they're the Developers, so

7 when I say the "Developer," that's who I'm referring

8 them to.

9   Also, just to let you know as well, we

10 also have -- I just want to recognize a couple people

11 here again as well. It's always appropriate to do

12 this, recognize former Chief Fred Sangris if he's here

13 somewhere in the back. Yes. And former Chief Jonas

14 Sangris. He's here. Also, I -- Peter Lusk, former

15 Chief. I believe he's in the back. And also -- we

16 also ha -- I recognize Charlie Jim Nitsiza a former

17 Chief from Whati. I believe he's in the back.

18   Okay. And former Chief Leon Lafferty

19 from Behchoko. And also the former MP for the NWT

20 David Nickerson (phonetic), I believe he's in the back.

21 I just want to recognize him as well.

22   So just to -- as you can see, the

23 Developer has their own team. They have been on this

24 file for some time and the -- the application has been

25 in front of the Review Board for some time.

1   And to my side here we also have our own

2   team, but I just wanted to also recognize a couple

3   people on our team as well that -- that are here. I

4   just want to -- that will help out, because our -- what

5   we have to do is -- is take their -- their

6   applications, they come in, they go through a whole

7   process and it's really scientific. So our staff, we

8   usually have one (1) person assigned to this file and

9   in this case it's Alan Ehrlich. He's the fellow right

10 here that has the file and he's the one (1) that

11 corresponds between our -- our staff and to -- to the

12 Proponent or the Developer and -- and so on.

13   So that's why we're here today is to

14 talk about this public hearing. And part of our team

15 too, as well, we -- we bring in people sometimes around

16 the world and our job is to make sure that we, you

17 know, protect the environment in the Mackenzie Valley

18 for all citizens. And so -- so we brought in people

19 like Dr. Lukas Arenson. He's an advisor of the mine

20 engineering. I believe he's in the back here

21 somewhere. And he -- he -- we bring him in to help us

22 out as well.

23   And we also brought in Dr. Franco Oboni,

24 advisor of risk assessment. He came in from Italy. If

25 you could stand up. And Ms. Katherine Enns, advisor of

1 eco toxicology. I believe she's here. There she is,

2 yes. And we also brought in Dave Tyson. He

3 specializes in fish and aquatics.

4   So I just wanted to let you know that's

5 part of our team. Anyway, we're going to go -- now

6 we're going to go into the public hearing. We're going

7 to maybe ask the people in the community to come up and

8 -- to the podium or the table. If you could just

9 introduce yourself. And if you -- again, if you could

10 talk to us about the -- try to explain to the Board

11 exactly your concerns and your views about the proposed

12 development and potential environment -- environmental,

13 socioeconomic, and cultural impacts, and potential

14 significance to the -- of this project.

15   So I'm going to ask that -- don't be

16 afraid to come up. Introduce yourself. So feel free

17 to come up.

18

19   (BRIEF PAUSE)

20

21   THE CHAIRPERSON: Thank you. And I

22 guess that we're keeping a list at the door for people

23 that want to speak. So I've got a list here and -- and

24 we could always add after they're done. Just put up

25 your hand and just come on up.

1   So I'm going to introduce former Chief

2 Peter Liske to come up to do the presentation. Okay.

3 Mary Rose Sundberg from Dettah. She's also a band

4 councillor. So I want to recognize her as well.

5

6 PUBLIC COMMENTS:

7   MS. MARY ROSE SUNDBERG: Mahsi cho. My

8 name is Mary Rose Sundberg of Dettah. I am one (1) of

9 the Band council for Dettah, but I'm here to represent

10 my future generations, my grandchildren that are not

11 yet born. I want to talk about some concerns that I

12 have regarding this project.

13   As an interpreter, I don't have a long

14 memory, I've got short memory, so I make notes last few

15 days as I was kind of hearing what's going on here, so

16 my notes are no -- they're not in order. They're just

17 concerns that's been coming up.

18   Like I said, I'm speaking on behalf of

19 my future generation that are not yet born. Our people

20 lived in this area for many, many generations, long

21 before even Wakaw (phonetic) the Metis people and the

22 non Dene people ever discovered our area. We lived

23 here on the land like a lot of other tribes in the

24 other areas.

25   We're taking about perpetual care

1 forever. A lot of concerns that comes up that I think

2 about. When we talk about forever, that's more than a

3 hundred (100) years, or a thousand (1,000), or five

4 thousand (5,000), a hundred thousand (100,000) years.

5 So how do we know, and how can we be guaranteed that

6 the Federal government will have money in place to take

7 care of this site forever. How can we be guaranteed

8 that there'll always be pumping water out of there.

9 And will the government have money the next thousand

10 (1,000), two thousand (2,000) years? That's a concern.

11   You talk about perpetual care, which

12 means forever. What about our people? We need

13 perpetual care forever because we're going to be

14 worrying about this monster -- I call it a monster

15 that's underground; that's going to be there forever.

16   Every time we drive by there, we worry

17 about it. So we worry about our health, and our

18 safety. And our emotional well-being. That is

19 forever. So have they thought about us Dene people,

20 what we'll be living through.

21   And I also worry about the communication

22 that has to be in place somehow. How do we communicate

23 to our future generation? How do we tell them that

24 this monster underground is dangerous, do not go there,

25 or even go near it. So that is a concern.

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1   How -- how do we tell them, in the fifth

2 century, the English that is spoken at that time and

3 today's English, it's probably hard to understand the

4 fifth century English. How are we supposed to

5 understand the next thousands and thousands of years?

6 Maybe we won't even speak English, never mind our own

7 language. How do we create something, to put a

8 communication plan in place so that our future

9 generations will understand that that is absolutely

10 dangerous.

11   We drive by this site on a daily basis,

12 24/7, most people two (2) or three (3) times a day.

13 Not only N'Dilo that is directly affected by this mine,

14 but people in Dettah that drive by the tailings pond on

15 a daily basis, like I said, a few times a day.

16   A lot of times, we have to drive through

17 when the dust is flying around from the tailings pond.

18 Although we're in -- confining to our little vehicles,

19 we still smell the arsenic tailings pond as we drive

20 through. It gets into our vehicles. So, in fact, it

21 is killing us slowly. We don't know it, but it is

22 killing us slowly; that's the way I see it.

23   I think our business arm as well should

24 be guaranteed contracts. It's only right, I think,

25 that they give the contracts to our business arm of

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 1 Deton 'Cho, but I'm also concerned, if they are going

 2 to get contracts, and even to hire our own people, it

 3 has to come with a pretty big benefit package, because

 4 we know in the future they -- they will eventually get

 5 sick if they're working there, because you smell this.

 6 It's on the ground, it's in the buildings. So I worry

 7 about the health of our people, even though they're

 8 going to be working there.

 9   The environment is changing as well.

10 Everywhere we hear on TV other countries, even in the

11 Northwest Territories, the environment's changing, and

12 the Elders tell us they notice a lot of changes, and

13 they're -- they're also wary. They're going to

14 probably tell you that tonight, the changes that's

15 happening with the weather.

16   Never used to have tremors or

17 earthquake, but I heard there was a tremor in Nahanni

18 somewhere; that's in Northwest Territories. It's

19 pretty close. So have they even thought about what if

20 -- you have to have "what if" -- if something like that

21 happens here?

22   If anything happens like that, it'll

23 probably kill everyone down in Deton 'Cho, in this

24 world probably, with what's underground, the monster

25 that's there. The monster that was allowed to grow,

1 and the government let it grow, and never told us how

2 dangerous it was. They never said anything until

3 recently that we really found out that this monster

4 that's there is so dangerous nobody wants to touch it.

5 Can't even take it out of the ground.

6   But I'm sure, in future, there's always

7 new technologies happening all over the world. They

8 must be able to find something to neutralize the dust

9 that's down there. They shouldn't stop looking. They

10 should always continue looking for a solution, maybe

11 they might find it. Like I said, new technology's

12 always developing. And if they do, I would want that

13 out of our lands as soon as possible.

14   They say you have to have this diffuser

15 forever. You know what? We need water to live by

16 forever as well. The government has allowed this to

17 happen. They should allow us to have free water

18 forever. It's only right. Why do we have to pay for

19 water delivery every month?

20   I think about some Elders that are on a

21 really small budget of their pension, and some of this

22 money has to go towards the water. They have to pay

23 for water. Those kind of things, we shouldn't even

24 have to worry because of what the government has

25 allowed the industry to do to our people.

 1   Our people have been ignored in every

 2 aspect of this Giant mine. Now it seems like we're at

 3 the 11th hour and finally you're here -- wow. It's

 4 about time, but you should also make sure that our

 5 First Nations are involved in what's happening with the

 6 cleanup. Now you're here. They need to provide

 7 funding for our people's participation not only in

 8 traditional knowledge, but a lot of other areas that I

 9 think they should be involved in.

10   As Dene people we're very tolerant, very

11 forgiving people. We respect the treaty we made with

12 the Crown. It states that we will live in peace and

13 friendship. We allow the non Dene to come and live in

14 our lands and look what they do to us. I don't see no

15 respect there. The governments supposed to provide

16 education, health benefits, housing, and they also told

17 us we would never be prevented from harvesting on our

18 lands.

19   We can't use that land anymore, everyone

20 knows that, how dead it is. If you look in that photos

21 it looks so ugly and dead, because that monster

22 underneath has killed the land.

23   They've broken -- the government has

24 broken the agreements on many levels. When I say the

25 "loss of land," I don't mean only the vegetation. Our

1 ancestors had trails all over in that area. Those we

2 don't use anymore. The loss of plants, medicine, the

3 migration route, the freshwater, the food, our animal

4 habitats, it's all lost.

5   Especially putting our Dene people's

6 health in jeopardy; that's the most important one that

7 I really have a concern about. As Dene people we all

8 had tribal agreements. Of the people that used to come

9 in this area, we -- everyone agreed that certain area

10 of Yellowknife would not be used to put camps up,

11 because they knew it was a good place for vegetation to

12 grow and it was a migration route for our -- for the

13 animals.

14   So everyone had an agreement until some

15 non Dene people came around and they thought, wow,

16 nobody lives here, there's money here and they just

17 helped themselves without consultation at all.

18   If the government is trying to pass this

19 area as safe as I hear after reclamation, I dare them

20 to drink the water there and go swimming there. Would

21 they do that now? If they're trying to pass it as a

22 safe. If money grew on trees, I would be a full time

23 advocator for all the things that were taken away from

24 us such as language, and -- and our lands, and I have a

25 whole list of things, so that this kind of devastation

 1 would not happen to our people.

 2   The monster that's underneath this land,

 3 it's probably -- I hear that there's all kinds of

 4 tunnels even under Dettah, maybe right here as we

 5 stand. If there's a little tremor earthquake, we'll

 6 all fall in. There's holes all over the -- underneath.

 7 How can we guarantee that they will provide the funding

 8 forever?

 9   We need some kind of guarantee, because

10 we're not going nowhere like some people said. We're

11 living here forever and we have to live with that

12 forever. I just can't comprehend that, because it's

13 way too long into the future. We worry about a lot of

14 things for our future generation, but this is the ti --

15 the priority that is so dangerous. Like I said

16 earlier, how do we communicate this information into

17 the future? We have to develop something, something

18 that would tell the future that this area is dangerous.

19   I just about fell off my chair back

20 there when somebody said, This area can probably be

21 used for recreational use. Who in their right mind

22 would want to go there and camp out and have an outing

23 with their family on that kind of a land? I don't

24 think I would. Maybe you would. You probably say it

25 now because you won't live here the next hundred or a

1 thousand years, or your families.

2   So we need to communi -- communicate a

3 message to our future. Or somebody said maybe we

4 should write a legend about this thing that's

5 underground because legends can be told into the

6 future. It's a story, like Yamoria, but Yamoria's

7 story was a good story where he created the earth and

8 walked the world.

9   But this monster, we need to relay that

10 message to our future generations. And I think the

11 government needs to put a lot of money towards this to

12 help us create all these things, not only to -- to put

13 money aside to -- to care for the oper -- operation and

14 maintenance of it, a lot of other things that we have

15 concern about.

16   So these are some of my concerns that I

17 thought over the last few days and wanted to share with

18 the hearing. So mahsi cho.

19   THE CHAIRPERSON: Rose -- that was Mary

20 Rose Sundberg, from -- band council from Dettah.

21 Mahsi. I'll go to Fred Sangris, YKDFN and Akaitcho and

22 former chief.

23   MR. FRED SANGRIS: Mahsi. First of

24 all, I'm glad that the Board is holding a session here

25 in -- in Dettah. Mahsi for that. It's really

 1 important for our people. You don't know how much it

 2 means. It's very hard for our people to go and to big

 3 public forum like in the city where we don't have

 4 opportunity to -- to say what we want, but in our

 5 village here, we're happy to do so.

 6   And a lot of our people are sitting

 7 here, too. They all have a chance to say something.

 8 And I would encourage them to speak out about what this

 9 mine means to us and what it has done to us for quite a

10 long time.

11   Also I welcome the -- the INAC and the

12 people here who are also holding the session. We've

13 been asking for this since 1961, I believe. And it's

14 been about fifty (50) years that we wanted something

15 done. And we have letters to back up -- back it up,

16 too. Letters were written to Ottawa in that time. And

17 letters were being exchanged in 1937 to Ottawa. Thank

18 you to Mr. Michele Zeeky (phonetic), who still kept the

19 archive of letters that he sent many years ago, in the

20 '50s and '60s. That we still our correspondence that

21 are with Canada that we try to communicate. The

22 problem started way back, so it's not new. But only

23 now the action -- development of this action is

24 starting to happen.

25   I might -- I might have to say that it's

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1 -- it's a little too late because we cannot go back to

2 our lands to enjoy what we -- our ancestors enjoyed at

3 one time. I should introduce myself. My name's Fred

4 Sangris, former chief of the Yellowknives. But I'm

5 also a hunter and trapper and harvester and everything

6 else.

7   I've been acting as -- I've been

8 involved with the committee. Since January of this

9 year I've been a chair of the GMAC Committee. I work

10 with Elders and some of the committee members who are

11 involved in -- in looking at this -- this project, and

12 also to provide our advice and recommendations.

13   But I -- I have to let you know that for

14 several years, I believe a little over three (3) years,

15 the Yellowknives were not engaged, or not working in

16 this process mainly because the funding wasn't

17 available, and we haven't been involved. It's only

18 this year January that we finally put a committee

19 together, and the funding was made available so that

20 we've been working with it since, what I would say,

21 seven (7) -- seven (7) months or so, eight (8) months.

22   So for us, you know, it's -- it's

23 probably a little too late, too, because if the money

24 was available we would have been involved in this

25 process all the way through, but there was a break of

1 two (2) years in between where we were not involved in

2 any way.

3   But I have to speak from my heart

4 because I grew up in this area with many of my fellow

5 trappers who are sitting behind me, many of the Elders,

6 and I too speak the language. And many of us do speak

7 the language, and we try to communicate with Elders in

8 the olden days how this mine really affected our lives.

9   You could have a lot of Elders' voice at

10 -- at this forum here who would come and speak, but

11 many of those Elders aren't here. They have passed on,

12 and I -- I said it a few days ago, that the

13 Yellowknives Dene and N'Dilo had -- cancer cases were

14 very high in the 1970s and '80s. And -- and including

15 the event where children, Dene children died because of

16 the sulfur trioxide and arsenic trioxide in the

17 atmosphere, and we haven't had any inquiry. And I

18 think it's only fair to say that we should have an

19 inquiry. We need to know who was responsible, and why

20 there was so many ammonia and trioxide release in the

21 air and water even though Native people were living

22 right across the Bay here.

23   I don't know if there was a chance for

24 us to be exterminated once and for all, and it seems

25 like that to us, even to this day. Do we trust Canada?

1   Do we still trust Canada today after all those years?

2 Can we continue building that kind of relationship?

3 It's really hard because we -- again and again and

4 again, Canada has failed, has told us many things but,

5 then again, the -- the trust is not there anymore

6 because it's -- it's been too long, you know.

7   The mine -- remediation of this mine

8 started quite a while ago, although it may be a little

9 too late because I have to say that what we enjoyed one

10 (1) time, it's all gone. It's all gone. Everything we

11 -- we had. In that day -- in that day, that's the name

12 of that river. It's -- it's a place where our

13 ancestors, and my family and my grandfathers, where

14 they used to go and many of us Yellowknives, we used to

15 go there to enjoy the -- there is a rock in the middle

16 of a creek. There is a beautiful hill probably the

17 size of this room, and the old ladies used to go up

18 there and sit there while the men are hunting in the --

19 in the background of the creek. And along there we

20 were told that there were so many blueberries, all

21 types of berries grew there. Medicine plants. And --

22 and even burial sites in that area.

23   But all -- all that is gone. We've lost

24 it all. We'll never get it back. No matter how much

25 remediation takes place, how much you try to scrub and

 1 clean that on your knees, you'll never get it back.

 2 It's -- it's gone forever, you know.

 3   It's -- it's something that -- it's

 4 really sad how -- how greed has gone beyond. Greed has

 5 really gone beyond the destruction of such people and

 6 lands, it's unbelievable. It's probably going to be a

 7 classic story for Canada and Canadian citizens to read

 8 one (1) day, that this is something that happened to

 9 us, but it never -- never in our wildest dreams we

10 thought it would go this far.

11   And not only that, but with -- with the

12 mining and the settlement here, we're dealing with so

13 much impact here. You know, we -- we can't even go on

14 our hunting trails. It's people, citizens who come to

15 this country who are on our trap lands and hunting

16 trails, on the fishing areas. Our -- right now, our

17 moose hunting areas here is all packed with people.

18 And we have a treaty, and this is our territory.

19   We -- we have survived in this area for

20 centuries, thousands of years, but then we're competing

21 with everything. It's -- it's unbelievable. And I

22 think this is probably a very classic story for -- for

23 Canada, for ourself to -- to tell.

24   But the mine itself has really impacted

25 our community, particularly the people of N'Dilo who

1 are no longer here. Unanswered questions have gone for

2 so many years, and we still live in fear. We don't

3 know what's going to happen.

4   We're told that two -- 270 tonnes of --

5 up here ar -- poison arsenic is sitting underground,

6 and that's really hard to swallow; really, really hard.

7 All you need is a half a cup of the arsenic and -- into

8 this drinking water, and I'm sure the aquatic life will

9 -- fish and everything else would just disappear very

10 quickly.

11   It's -- it's very sad. We have to -- we

12 have to wake up every morning and watch the mines from

13 across the lake. And there is no alarm or bells or

14 anything, an emergency saying there's something going

15 on here or an earthquake or a flood or something.

16 We're -- we're just sitting ducks right across the bay

17 there. And if any disaster happens, no one will get to

18 us or send a message to us quickly, saying there's

19 something wrong. It might be a little too late for us,

20 you know.

21   At one time, the Yellowknives almost

22 became extinct, very close. And it happened with the -

23 - the people that arrive in this country who brought

24 epidemic with them. In Canada, on the other hand, gave

25 blankets out with those epidemic, not to help us, but

1 to get rid of us. We're in the way of the gold. We're

2 standing in the way of pros -- Canada's prosperity.

3   But we manage -- our forefathers managed

4 to fight back, and that's how they survived. We came

5 to about close to three hundred (300) people of the

6 Yellowknives who were over four thousand (4,000) people

7 at one time, and very, very close. But we managed to

8 save ourselves.

9   Some of our forefathers took their

10 children to the wilderness, to the barren lands, and

11 that's how they survived. We came very close, you

12 know, and Canada was not there to help us, to save us.

13 They weren't going to do anything like that. But we --

14 determination, our people survived.

15   Today we are about fourteen hundred

16 (1,400) strong now. Our numbers are going back up, and

17 the majority of them are young children. Now those

18 children have to live here, the same as ourselves. We

19 have to live in fear, and they may have to one day.

20 Once they understand what substance and what toxin is

21 underground, I'm sure they will be doing the same thing

22 we're doing, bringing their voice to the table, forum,

23 and at the political level. It may just go there one

24 day.

25   But I'd like to just explain a little

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1 bit about this lake here in the front. Many -- many of

2 you, when you arrived here you had a chance to take a

3 look at the lake. Under the lake are valleys. Like

4 any big, major lakes, there are valleys and hills

5 underwater that we know.

6   Traditional knowledge tells us where our

7 ancestors fish on the waterfront. There are valleys

8 and hills. Those valleys, they make their way to the -

9 - to the river, the mouth of the river, and that's

10 where all the freshwater from the rivers is coming to

11 those valleys and out to the lake.

12   But within those valleys are fishes that

13 have -- make their homes in the water, and those are

14 our source of resources. We depend on those fish for

15 food. Now, if any contaminants or any toxin or any

16 unhealthy substance reaches the fish, or even the

17 sediment, the mud bottom, and there's going to be

18 health problems to the fish, eventually it will lead to

19 us. And we're the ones who will become ill and sick,

20 because this happened to our community in Dettah in

21 1970s and '80s, and it was devastating.

22   There's never been a compensation or

23 apology from anybody. Even though we begged Canada and

24 asked Health Canada to look into it, nobody came to our

25 rescue. And this is how -- how Canada operates.

 1   And they have a -- they're a known

 2 history, even though we're allies to the Crown in times

 3 of hard times. We -- we've made an agreement, a treaty

 4 agreement where we said we'll be allies. In return, we

 5 will help each other.

 6   I think our people have given their

 7 voices over the years, but Canada never has -- never

 8 come to our rescue, has never tried to look after the

 9 indigenous people of this area.

10   I have to say thank you to United

11 Nations, because the Yellowknives of Akaitcho territory

12 are one (1) of the four (4) groups in Canada that has

13 been studied by UN. And we're the ones who really

14 pushed for that, the UN declaration, so that our

15 indigenous people here will be more respected and not

16 abu -- abused in the future again, never like this

17 again.

18   And UN will be watching, and I'm very

19 happy that they're -- they're about and that they're

20 here and studying our treaty and our relationship with

21 Canada and the Crown. And then hopefully in the future

22 we'll be respected more.

23   I've been listening to this forum the

24 last couple of days, and I've seen speaker after

25 speaker come up. And what -- what really disappointed

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1 me is the people, the federal department people who are

2 involved; really, really disappointed.

3   Somehow INAC has it in their head that

4 they can go to other federal departments who have

5 agencies who have a legislation or are under an act --

6 namely, the Department of Fisheries and Ocean -- who

7 has their own authority, own department, own

8 legislation and -- that -- where they can enforce.

9   And somehow Canada, I see somebody's

10 telling them not to fight, not to say much. We have no

11 comments today. We have nothing to say. That is not a

12 way a federal department acts. There is something

13 wrong here. When a department like that can't stand up

14 and question the remediation team here on fish, on

15 water, on diffuser, then there's something wrong here.

16   This is -- this is a democracy. And I

17 really feel sad that this is happening at such a time.

18 I would like to see DFO really put a question in the

19 next two (2) days to the remediation team and challenge

20 them on some of those plans that they have. That's

21 their role. Otherwise, pack up your suitcases and

22 leave. The Yellowknives can take over and be in charge

23 if you can't do your job, because the Yellowknives have

24 their own government too, and the people's voice will -

25 - will push Canada to do the right thing.

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 1   But you can't have one (1) department --

 2 a federal department control another federal

 3 department. That's not democratic. That's -- that is

 4 pure injustice, and this is what I see. And they're

 5 getting away with it.

 6   I hope federal department will speak up

 7 in the next two (2) days in the interest of the

 8 citizens and First Nation, really ask tough questions,

 9 including Environment Canada, who have their own

10 department too.

11   These two (2) department agencies are

12 not asking enough, because somebody told them, Don't

13 ask. This is pure injustice. These kind of injustice

14 should not be practised here.

15   I'd really like to see them really

16 challenge that. And they need to really, really do

17 their job, because they are their own federal agency

18 and they have the job to do and they should do it, do

19 it right.

20   The valleys that you see, as I said,

21 underwater leads up to Yellowknife River. And a lot of

22 the fish migration underwater goes back and forth.

23 They work.

24   We eat a lot of fish here. We are lake

25 people, we are fish people, we are caribou people, and

1 fish is our main diet during this time of year. And

2 we're really concerned about it, because if the -- the

3 fish is contaminated and eventually we will, and

4 eventually there might be miscarriages and other

5 illness that might really come in the future. That may

6 happen.

7   And that's a really dangerous thing, you

8 know, if -- if -- if these things come up, then DFO and

9 then other departments are being questions: Did you

10 know about this? This is a danger where people really

11 have to watch. If they put a diffusor out there, which

12 I don't agree with, it's not going to do any good.

13   Just when we think the Yellowknife Bay

14 is going to be cleaned up and we can go and eat the

15 fish and set the nets and go swimming, well, there's

16 going to be anoth -- a diffusor right in front of us

17 which will destroy our Back Bay again, which means that

18 we have to pull our -- our nets out. We have a treaty

19 right to fish, but we can't fish in contaminated area.

20   That diffusor is not a proven

21 technology. It's not a pro -- a pro -- proven concept.

22 We all know, as Dene people, in our traditional

23 knowledge that whenever you create moving or current

24 water, there's a chance you'll fall in. There's a

25 change the ice will be thin. Any river currents, even

1 in front of the lake here further out, any water --

2 body of water in the current that's moving, you'll fall

3 in. Any hunters and trappers and -- behind me will

4 tell you that. Moving water is not good.

5   It creates thin ice. It may not be good

6 for the -- for the enjoyment of people who cross the

7 lake regularly. People will probably fall in. And the

8 diffusor, once it's in the water, moving; it's also

9 going to create problems for the fish that disappear

10 for seventy (70) years. The coney was here one (1)

11 time in 1930s until the first mine dynamite that went

12 off, and then they start to move out. They've never

13 been back for seventy (70) years.

14   The Yellowknife River in that land,

15 which is call Coney River, but there's no coney in

16 there. Gone, because the quality of water and the

17 pollution of Yellowknife Bay driven them out and they

18 have not returned to out here in the front here, right

19 in front of our dock here, but they're not going to

20 river anymore. There's something wrong. The lake

21 trout use to run the rivers here at one time. Them too

22 did disappear.

23   So what was one -- once our livelihood

24 and our way of life has been altered and -- and

25 violated. And we've been asking Canada. This -- this

 1 is not good practice until, you know, the greed -- as

 2 they say, greed could blind you. And this -- this is

 3 what happened.

 4   The mines and towns, the greed just took

 5 people further and further until they finally realized,

 6 Well, oh boy, that we got a big mess here. And it was

 7 just devastating for us, but the remediation -- our

 8 whole people ask a lot of questions. Remediation means

 9 like cleaning up the area.

10   But I hope that many Yellowknives will

11 say something tonight, express their concern, what this

12 mine has done to us and is still doing to us today.

13 Even though there's children have lost their life and

14 many Elders have passed away with cancer, as the

15 remainder of Yellowknives who live in Yellowknife Bay

16 and N'Dilo, we're afraid to drink the water. We use to

17 go down there and get the water and bring it back to

18 our house and make soup and everything. We can't do

19 that anymore. Getting water and bringing it to your

20 house is a human right. No one should destroy your

21 quality of water and -- and make you sick - no one.

22 And it's happened to us. We're not allowed to use any

23 water. We can't drink it.

24   So I think Canada really owes us a lot,

25 the compensation. Some of those lands need to be

1 returned. Our archaeological sites in that whole area

2 has been destroyed and destruct. It may not be too

3 late to -- to look at it, but we do have heavy

4 archaeological site in that area.

5   And to restore the land to its original

6 habitat, it might not be even close, but the

7 Yellowknives need to be involved with full traditional

8 knowledge, their knowledge of that area, and how they

9 can help with the remediation. That only happens if

10 Canada puts money forward for us to -- to be involved.

11   You all know Canada. If they don't want

12 you, they don't want you. They'll just pull the money.

13 It's been like that for us the last thirty (30) years

14 I've been involved with them. And if they don't like

15 it, they pull the money.

16   I think there's a word called "forever".

17 For the Yellowknives Dene, that word "forever", we know

18 what it means. You look beyond the moon and the stars,

19 and you see nothing. You continue; that's forever.

20   But for the federal government,

21 "forever" means ten (10) years. After that, they're

22 hoping that people will forget the history here, turn

23 the page and go on with their lives, and they'll never

24 have to pay a price or a compensation or anything. But

25 they need to. They really need to give compensation, I

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1 think, for the destruction that took place. And for

2 us, as people, we can't drink the water.

3   At one time, the City -- Dr. Stanton

4 (phonetic), who was here in 1940s, talked with the City

5 and the government here at that time. The territorial

6 council was a small body. He said, The Indian people

7 are dying, they're getting sick. You need to provide

8 free water for them, because the Yellowknife Bay is

9 contaminated at that time.

10   Canada paid for the water for a few

11 years, and then one day, they just stop paying. You

12 want water, you got to pay for it. Well, we don't want

13 to pay for the water. We'd rather go right to the lake

14 and bring it, but we can't.

15   So somebody's responsible for that.

16 Somebody should pay for clean drinking water for -- for

17 our -- our communities, because we can never get that

18 back. The quality of water that was there, we'll never

19 get it back. And the fish that we depend on, they may

20 not be safe in the future. We want it to be safe. It

21 can only happen if things were done right.

22   So I'm going to end it right there. I

23 have a lot of people who'll probably speak, but I -- I

24 really think those two (2) departments need to step up

25 and do their job. Mahsi.

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1   THE CHAIRPERSON: I'm going to go to

2 Alfred Baillangeon. Then, after Alfred, we'll have a

3 short break. And then after that, I've got Peter D.

4 Sangris and Peter Liske.

5

6   (INTERPRETED FROM TLICHO INTO ENGLISH)

7

8   ELDER ALFRED BAILLANGEON: Thank you.

9 Thank you for coming to our community. People that are

10 sitting in front of us are working for us. I am

11 looking at all the Elders' pictures up on the -- on the

12 wall. It's their land. All those pictures that you --

13 that are up there, it's their land, and none of them

14 are alive.

15   I'm involved with the band council. And

16 I am seventy-seven (77) years old. My grandfather, my

17 mother's father, was a chief. On my mother's side,

18 uncle, Fritz (phonetic) Sangris, were form -- former

19 chiefs. It is their community. All their pictures are

20 up there.

21   Back in 1916, when the first White

22 prospector came, there were being seen -- they were

23 travelling by canoe, a birch bark canoe, and they never

24 saw White people. But they saw -- one (1) of the

25 Elders was telling me that they saw prospectors. And

1 he told them that, You're not doing that on my land, so

2 go away.

3   And then after the Elder passed away,

4 they started prospecting in that area. They found

5 gold. And right now, you're talking about

6 contaminants.

7   Back in 1955, we used to travel by dog

8 team in that area. There used to be a pipe over there.

9 And we didn't know at that time it was a tailing pond.

10 Is -- Isadore Char -- Sangris, his dog got into -- into

11 the water. And with that, we -- we -- then we found

12 out about contaminants. And they -- they never consult

13 with us at that time.

14   That's what they do towards -- towards

15 us. And all they extract -- they extracted all the

16 rocks, the royalties from our area. What -- what did

17 they do with all the money? It's all gone back to the

18 federal government, and you -- you are aware of it.

19 And that money -- you -- you guys have to give us half

20 of that money.

21   Right now, the youth that are alive -- I

22 got a lot of grandchildren, even my daughter's

23 children. What are they going to survive on? They got

24 their own family. And right now, my family are in

25 front of me.

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1   You -- you guys have to look -- look

2 after us really good. Back in 1955, when we signed the

3 treaty, when we -- they made a agreement, they said if

4 -- the agreement was for friendship, and nowadays,

5 nothing. The -- the agreement has been broken.

6   And right now, they extracted a lot of

7 resources from our area. And they never told us, you

8 know, You guys are -- due to suffering and all that,

9 we'll compensate you guys. They never told us that,

10 and it's not right at all.

11   As a human being, and -- and if we ever

12 go to your hometown and destroy your land, we would end

13 up in -- we'll be incarcerated. You guys have to look

14 after us and support us. And you're talking about the

15 Giant Mine.

16   How many millions of dollars will be

17 spent towards that mine site? In the future, what's

18 going to happen? You're taking about the creek, Baker

19 -- Baker Creek. And -- and it's flowing out. And they

20 -- and they travel along the creek, and they used to

21 kill moose. It's not going to be the same like before,

22 even though you -- you do the remediation work.

23 Nothing will be the same.

24   All the Elders that are in here, they're

25 aware of it. As a non-Native, you guys don't care.

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 1 No, this is the situation that we're facing. And a lot

 2 of chiefs had rotate. They had a lot of good words,

 3 and right now they're all buried and we're still

 4 standing here. And they don't respect us. It cannot

 5 be like that.

 6   Right now they're -- the people in front

 7 of us are representing us. They're -- and you guys

 8 have to take our words. That lake over here depend --

 9 a lot of people depend on that water. People -- and it

10 -- it flows into other land -- a lot of people depend

11 on the -- the water, and even the animal depend on that

12 water.

13   And that con -- arsenic, you guys said

14 you guys going to do good work at cleaning up, and it

15 would be good if we can watch you guys do that.

16 There's going to be a pipe, there's water flowing from

17 -- from Yellowknife town. If you -- if you guys do the

18 diffuser, if you put diffuser over there, you guys

19 going to kill a lot of things.

20   And even my grandchildren, I want them

21 to -- are working with you guys. And about the Giant,

22 even about nine (9) people have died at the mine

23 because of the explosion. And we have to support one

24 another really good. And whoever's land we're talking

25 about, you have to consult with the chief really

1 thoroughly.

2 And the -- right now if they create

3 mines, they don't consult with -- with the people.

4 There's mine in barren land, and luckily they're

5 helping out with a little bit of money. And there's a

6 lot of arsenic due to the mine.

7 Back in 1962, we did brush cutting

8 around that area. All this time there was arsenic in

9 that area, and I was -- there was gravel that goes into

10 my mouth. At that time, I didn't know. We put

11 branches, and we made fire. And it just like there is

12 -- there's a big black smoke that went up, the flame.

13 And all this time, it was arsenic. It -- it's like

14 that in that area.

15 Everything is just black. And we lost a

16 lot of friends, and -- and no one of my friend is still

17 alive. That's how we survived. The rest of my friends

18 have passed away.

19 But I have -- I will direct my questions

20 to you.

21 Bill Enge, the Metis -- Metis Alliance,

22 we don't see them around. But they're claiming that

23 they're from this area, and they said they trap around

24 that area. They're from Fort Chip. Their -- and

25 sisters are from Fort Chip area, but then they're

374

1 claiming that they're from this area. You cannot take

2 their word for it. And they're -- they're not telling

3 -- telling -- giving you the truth. And you cannot

4 listen to them, because their information isn't -- is

5 not accurate, and the Board are aware of it.

6   And -- and it's not -- it's not nice to

7 give false information, because this is not their area.

8 But then they're claiming that it's their area, and I

9 really disagree with it. And then even Fort

10 Resolution, some Metis, we don't see them. And

11 arsenic, it flows through this area. Even the -- the

12 government cannot say anything about it because --

13 because of their greed. They don't care if a person

14 die from it. And I'm -- I'm really serious when I

15 speak about this, and it seems like my heart cry.

16   And my hometown is right here, and then

17 we live among all the arsenic. And then it's really

18 difficult to do all the cleanup. And then I used to

19 check out the pond over there. How they going to

20 restore everything? Even you guys are afraid of it.

21   We have to really discuss this among --

22 among ourselves. We have to have a good discussion

23 about it. And it doesn't take only one (1) discussion

24 and make decision on it. We really have to have a

25 thorough discussion over it, and it's kind of hard to

1 make a decision just like that.

2   And my -- my people thank you. People

3 do want to speak up. As Aboriginal people, we have to

4 speak for us, but why are you allowing Metis to speak?

5 Because they're giving a false information. And think

6 about it. And my people are aware of it. Even my

7 nephew, Rick, is aware of it, even Jimmy is aware of

8 it. And we cannot give false information and say, This

9 is my land, my area.

10   Yesterday, all day, I had a -- I wasn't

11 feeling well, and Rick had doctor. We should have got

12 his doctor today and -- and look at me. Thank you.

13

14   (INTERPRETATION CONCLUDED)

15

16   THE CHAIRPERSON: We'll take a ten (10)

17 minute break and we'll come back.

18

19 --- Upon recessing at 9:27 p.m.

20 --- Upon resuming at 9:41 p.m.

21

22   THE CHAIRPERSON: Okay. I think we'll

23 -- we'll go ahead and start. I'll get Peter D. Sangris

24 to come up -- either to stand up or sit down. It's up

25 to you.

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1   (BRIEF PAUSE)

2

3   MR. PETER SANGRIS: My name is Peter

4 Sangris, Yellowknives Dene First Nation. (NATIVE

5 LANGUAGE SPOKEN)

6   I want to drink good water.

7 Yellowknives Chief Drygeese territory. Thank you, you

8 people come in for the meeting. Today we -- we have

9 meeting about the Giant Mine frozen arsenic forever.

10   What I like to know how long this good

11 for, frozen arsenic at the Giant Mine, on the ground.

12 It may be good for a thousand years, nobody know.

13 There might be the ground moving from the earthquake.

14 You never know what is going to happen.

15   Yellowknives Dene, they are worrying

16 about frozen arsenic because the world is changed. Too

17 warm -- too warm of weather. The frozen arsenic, some

18 these days, they might melt it and go down to

19 Yellowknife Bay and then pollution.

20   Giant Mine company, they're making

21 billions of dollar from Dene land. And the mine

22 company, they left behind a polluted, messy place.

23 Yellowknives Dene -- Dene people, they never see one

24 cent from Giant Mine company. Yellowknife Dene they

25 need good conversation from the Giant Mine NWT.

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1 Yellowknife, Giant Mine, frozen arsenic is very

2 dangerous stuff. Careful to handle it. They're

3 powerful stuff. I know that because our work

4 underground -- our work underground Giant Mine for

5 seven (7) years. And few of my friends, they're

6 working -- they're working in Giant on the roaster.

7 And they told me the story about a arsenic roaster.

8 Dangerous stuff.

9   I hope Yellowknife and government people

10 make a good job and safety. At the Giant Mine, frozen

11 arsenic and about a Giant Mine roaster, arsenic, that

12 big height, arsenic smoke goes 10 miles around the mine

13 -- ars -- arsenic smoke. It is dangerous stuff for any

14 kind -- dangerous stuff for any kind of animal; fish

15 too.

16   Yellowknife Dene, they already knew the

17 Giant Mine company destroy our land of water, and the

18 water are polluted. And frozen arsenic maybe -- maybe

19 good forever, but would -- we won't know yet.

20 Yellowknife Dene people, they -- they don't want

21 nothing happen to the frozen arsenic in underground

22 ground. Keep it safety forever. Maybe a thousand

23 years or million of years, safety first.

24   And about frozen arsenic, maybe -- maybe

25 they'll cover -- whole thing to cover up good with a

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1 strong cement that stays hard forever. No more

2 pollution in Yellowknife Bay. It is enough. Dene

3 people, they know Yellowknife Bay fish are sick from --

4 from last fifty (50) years ago -- the -- from the Giant

5 Mine north territory.

6   And all the fish, the stomach were all

7 red. The meat is too soft to eat. Before last fifty

8 (50) years ago, the fish good to eat. Today we're

9 scared to eat a fish. Somebody have to look -- to look

10 into it. Make sure the fish is soft -- I mean -- I

11 mean the -- the fish is too soft and the fish are sick,

12 and -- and another kind of animal around Yellowknife

13 area.

14   We'll work together safely to all

15 Yellowknife people about the Giant Mine. And mahsi

16 cho.

17

18   (BRIEF PAUSE)

19

20   THE CHAIRPERSON: The next speaker I

21 have is Peter Liske, former Chief.

22

23   (BRIEF PAUSE)

24

25   (INTERPRETED FROM DOGRIB INTO ENGLISH)

379

1   CHIEF PETER LISKE: This meeting this

2 evening, we're thankful. This is a very important

3 topic that we're talking about. In the past 1975,

4 while I was an interpreter when the Eld -- Elders were

5 speaking regarding how we would live, and I still keep

6 on to the knowledge that was passed on to me.

7   We were pass on to -- when we were

8 children, young men in the future, there will be many

9 foreigners coming onto the land. So when we look at

10 the future, you have to be careful. And with the Giant

11 Mine, it's been with us for many years. And there's

12 three (3) issues that -- and we're only talking about

13 only one (1) item, and that's the arsenic that's

14 contained. But there's three (3) different things

15 that's been ruined on our land.

16   When we go land, we breath the air, and

17 that's -- that's -- and also we drink the water. And

18 the water is contaminated now. And also on the land.

19 And the environment has been ruined. When you see it,

20 not -- not only here, we the people, the citizens of

21 N'Dilo and also the Yellowknives Dene First Nat --

22 Nation, this is -- we -- we consider this is 30-miles

23 radius is all the land that's been contaminated and

24 ruined.

25   And also I want to talk on many issues,

1 but I -- I've been only given only ten (10) minutes, so

2 I'll -- I'll be steadfast in my speech. And as we

3 speak to the issue of Giant Mine, we're talking about -

4 - when we speak to it in - in English, it's very hard

5 to understand. And when -- it's a very complex issue

6 that we're talking about.

7   When we're talking, we're talking

8 environment concerns, it's very complex word, and it

9 talks about the land, the water, and how we live. And

10 we're -- everything that's contained in the

11 environment. That's what we're talking about.

12   As for myself, the way I see it, it's

13 not going to be remediated right away. And I've been

14 listening three (3) days -- three (3) past -- past

15 three (3) days, and -- and every time when the

16 Developers are questioned since 1999 they -- they are

17 representing the government, and the yare the ones that

18 are -- and these past three (3) days they've been

19 saying only minor negative effects, and also good

20 enough -- and they did some work to remedy the

21 situation.

22   And there's -- these -- I still don't

23 understand these words that they're talking about, and

24 also when we talk about the water that -- so when they

25 say these things, what do they really mean? And the

1 best -- when you talk about the best solutions they're

2 talking about frozen block solutions. What are they

3 talking -- and when we talk -- we're talking about

4 arsenic trioxide dust that's going to be stored, and --

5 a hundred thirty (130) -- to -- to monitor the Giant

6 Mine.

7   And also these consultants as they are

8 saying, and it's been the past ten (10) years that

9 they've been working on this remediation work, and also

10 they put 23 million liability -- towards liability, and

11 so they want us -- how can we work alongside with them.

12 A hundred and thirty (130) -- a hundred and eight (108)

13 -- eighty thousand dollars ($80,000), what kind of work

14 can we do with that? As they were saying, there's

15 unlevel -- and that's right insane that there's an

16 unlevel playing field with a hundred eighty thousand

17 (180,000) to work with.

18   I may not speak too long, but today I

19 found out something. In the past, the water's been --

20 early 1950s, and there were four (4) children that

21 passed away because they drank water from the -- this

22 one (1) guy's name is Michele Zeeky (phonetic). And he

23 lived to be a hundred years. And he had a document --

24 documented September 23, 1973. He talked to min --

25 wrote to Minister Chretien and Stewart (phonetic)

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1 Alderman and see -- see these people. And today I

2 wanted to table this document. I want to table this

3 document to the Board.

4

5   (INTERPRETATION CONCLUDED)

6

7   CHIEF PETER LISKE: .. explain in that

8 letter in regards to the health -- the health issue and

9 why -- and why we're asking that Health Canada should

10 be involved. I think this letter will explain that.

11

12   (INTERPRETATION FROM TLICHO INTO ENGLISH)

13

14   CHIEF PETER LISKE: And also, since

15 1999, the beginning of the remediation, there's been

16 two (2) chiefs that made a document -- presented a

17 document on our land. The Giant mine is situated on

18 our land. And we, the citizens of the N'Dilo, Dettah,

19 and also the Smoky with regards to the socioeconomic

20 impact they wanted to do some work.

21   And Jane Stewart (phonetic) had made a

22 re -- regarding the closure and reclamation of Giant

23 Mine, there was a document that's been presented.

24 Also, when we present it to the government we have to

25 be involved as YKDFN. And today, we're not being a

383

1 part of the working group. And they're the ones that

2 make the decisions and we're not involved. And so, for

3 that, I want to table this.

4

5   (INTERPRETATION CONCLUDED)

6

7   CHIEF PETER LISKE: ... table another

8 letter that was sent by -- that was sent in April,

9 1999, by our two (2) former chiefs. And it'll be

10 tabled to the Board of Directors Board to Mackenzie

11 Valley Environment Impact Board, for the record.

12   So in all these things that were -- that

13 has been done in the past, none of it has been really -

14 - has been justified. If we are to work together,

15 we're going to be a partnership, we're going to have a

16 long-term relationship in this community and with

17 Yellowknife, we have to start -- you guys are going to

18 have to start looking closely to what we have to say.

19 And we have to be involved in every way.

20   The recommendations that I'd like to

21 make tonight, it's three (3) recommendations, what

22 Yellowknives Dene First Nation want. 1) We need a

23 commitment. 2) We want long-term funding for GMAC.

24 GMAC is Giant Mine Advi -- Advisory Committee. And

25 they can work on specific issues, example, monitoring

1 of air, water and land at Giant Mine site on a day-to-

2 day basis.

3   And will have a review every six (6)

4 months. And then we will inform the members about the

5 site and what's going on. I also want GMAC to -- to

6 negotiate the compensation package. This is a

7 different issue from the main table negotiations. And

8 they will take directions from Chief and council and

9 the members at large.

10   And thirdly, if you want the community

11 engagement we need your support. And YK Dene will have

12 to be involved 100 percent. Again, to recommend again

13 and what we're saying is that we -- we need long-term

14 commitment and funding arrangements as soon as

15 possible.

16   At this time we are engaged with the

17 City of Yellowknife on the main table negotiations, but

18 on the side Yellowknives Dene has continued to -- to

19 work on the commissioner's land and the boundary issue.

20 And that work will continue even though there's an

21 election coming up within the city on October 15th.

22   But I -- in our last meeting we said we

23 will continue that work. So we establish a committee

24 and we're hoping that we'll have some progress made

25 within the next six (6) months.

 1   As you all know, Akaitcho main table is

 2 ongoing and next week we're meeting face to face with

 3 the federal and GNWT. So sort of in -- you know, like

 4 we're so involved. If you think of -- you look at the

 5 big picture, when I said very complex, we're being put

 6 on a back burner all the time.

 7   We're working with a verly -- very

 8 little budget. I just mention here since 1999 the

 9 government or the Developers have spent $160 million to

10 date and there's put -- and then there's 23 million

11 liability that was put aside.

12   Well, we have to -- we have to be at the

13 playing field. If you guys want us to be involved and

14 then at the playing field, you guys are going to have

15 to really consider looking at this or else I don't

16 know.

17   If it's -- if you go the other direction

18 I think there's enough people here. We have good chief

19 and council. We have a lot of youth. You know, we may

20 take some action. We don't want to do that. We all --

21 we all said we want to work. We all want to work

22 together and try to resolve things.

23   So in closing, I think what we want is

24 we're not going to resolve everything of what I've

25 heard and to date, and I don't think we're going to be

 1 satisfied. To me alone I don't think I'll be ever

 2 satisfied that in twenty-five (25) years the land will

 3 be back to where it was. I don't see it. I don't

 4 think anybody or all the consultants in the world and

 5 all the engineers in the world will tell me that Giant

 6 Mine will be 100 percent reclaimed.

 7   And you look at these posts -- site and

 8 everything else you guys are showing us, all green.

 9 And you're saying that the water is going to be good to

10 drink, fish will be okay to eat, and you drink water.

11   You heard if from all the rest of the

12 presenters. I don't see it that way. To me the only

13 satisfactory will be if I hired -- if I -- we hired --

14 Yellowknives Dene First Nation hired their own

15 consultants or their own doctors and do our own studies

16 to our own satisfactory. I think that's the only way

17 that the Yellowknives Dene will be satisfied.

18   And then, like I said, in closing I

19 think key to everything -- key to everything of what

20 our people, my members and the rest of the presenters

21 have been saying, and especially Alternatives North,

22 they've been keeping a close eye on it.

23   I'd like to thank them. I'd like to

24 thank North Slave Metis Alliance. I'd like to thank

25 the -- the rest of the presenters. But key to

 1 everything I think what we want as Yellowknives Dene --

 2 Yellowknives Dene First Nation is that to do everything

 3 right we need environmental impact -- environmental

 4 independent review for this project.

 5   So slow things down. You're not going

 6 to resolve everything. So that's what we need to do.

 7 And so that's all I'm saying tonight, because I just

 8 didn't have time. I had lots written, but I can't go

 9 through everything. But, hopefully, our message and --

10 from my Elders and from my Chief and my councillors,

11 hopefully the message will get through to the

12 Developers and to the minister. And -- and hopefully

13 things will -- we will work together in the future.

14 Masi.

15   THE CHAIRPERSON: Thank you, Peter

16 Liske. Can I just go back to one (1) question you

17 mentioned. Of those three (3) points you just

18 mentioned, the commitments, can you expand on that just

19 briefly?

20   CHIEF PETER LISKE: When I'm talking

21 about commitment is that we need a long-term funding

22 commitment. We need dollars to work, to do our own

23 research. And we're going to give that mandate to

24 GMAC. And GMAC will be the Giant Mine advisory

25 committee -- we have a committee in place -- with the

 1 Chief and council giving directions. So when I'm --

 2 when I'm talking about long-term commitment is that

 3 it's the -- regarding funding.

 4   THE CHAIRPERSON: I'm going to go to

 5 Board member John.

 6   MR. JOHN CURRAN: I want to say thank

 7 you for all the speakers tonight. I know it can be

 8 very intimidating to come up. And it's clear everyone

 9 is speaking from the heart and the Board very much

10 appreciates that.

11   Chief Liske, the GMAC that you're

12 speaking of, is that -- when you say that it takes

13 direction from Chief and council, does -- the Developer

14 would also have a -- a seat and a -- a voice there,

15 right, this -- in this group?

16   CHIEF PETER LISKE: Well, right now,

17 the way it's set up is the only members are involved is

18 our -- we have a -- a worker, and the key -- the

19 members of the com -- committee is the YK Dene First

20 Nation members. And they're taking direction from the

21 Chief and council.

22   So I don't know how we can re-establish.

23 Maybe look at different ways of establishing maybe one

24 (1) committee involving developers. And -- and key to

25 this is that -- what I'm saying is that we have to be

1 involved directly at decision making at every level

2 from now on.

3   THE CHAIRPERSON: Thank you. Any

4 further questions, John Curran? Okay. I don't know if

5 any of the other Board members have any questions, but

6 I want to thank Peter Liske, former Chief. Oh, yeah,

7 Peter Liske, if you could maybe give that letters to my

8 staff on the table here, we could take that. Thank you

9 for sharing that information with us.

10   Is there anybody else in the back that

11 want to come up and -- from the public that want to say

12 anything about the Giant Mine remediation project? And

13 if I don't -- nobody comes up, then I think -- Chief --

14 okay. In the back. Just state your name for the

15 record, and then...

16

17   (BRIEF PAUSE)

18

19   MR. GEORGE TACHECHELI: Hi. My name is

20 George Tachecheli. I'm from Dettah. I -- I grew up

21 here, and I'm just going to talk about what I -- I

22 experienced when I was young.

23   I remember when Giant Mine and Con Mine

24 was operating, probably around -- right around the

25 '60s. There's a cabin just down here. That's where I

390

 1 -- I grew up in. And sometime I'm -- I'm sleeping, I

 2 could hear the blasts. Sometime I -- I wake up from

 3 the blasts from under the ground and sometime I hear

 4 the drilling from underground when I was growing up.

 5 It was all the way through, from around the '60s right

 6 up to about -- around the '70s.

 7   I noticed it sort of eventually started

 8 to die down more and more. And then when -- when the -

 9 - when the mine is closed I never heard it again. I

10 kind of thought that that was good, but I never thought

11 about what -- what really happened down there and

12 what's -- what's going on because we -- we never heard

13 about -- about things like arsenic back then.

14   And after shutdown, I realized that it -

15 - it starts to come up on the surface, like everybody

16 start talking about arsenic. But I -- I seen things

17 around the -- around the '60s. When we used to have a

18 dog team we used to go -- go to Giant Mine by -- by

19 dogs to -- to collect some scraps for -- for dogs.

20   There -- there used to be a spillage

21 going down. We had to cross it. Sometime if we do

22 cross it, the dogs -- the dog, they -- they stepped in

23 it. Some dogs stepped in it. And those dogs, they --

24 their feet will be just raw. They -- you know, because

25 -- because of that arsenic. I -- I remember that when

1 -- when I was growing up.

2   To -- to this point, that I think it's -

3 - it's still -- it's still in the air, and it's when --

4 when there's -- when -- when there's lot of wind it

5 goes all over. Maybe it goes further than maybe thirty

6 (30) miles more, and it goes all the way around.

7   And -- and on -- on top of that, I want

8 to add a little bit what Meryl (phonetic) said earlier.

9 There's -- there's a mons -- monster down there. And

10 that monster, it's -- it's creating something in us

11 because we're eating the fish, we're eating the

12 animals. So we're -- we're like a walking time bomb,

13 dying slowly because we -- we eat all that, the -- we -

14 - we eat the fish. We eat the caribou.

15   Even the caribou come down here back.

16 The latest time when the caribou came here was about ni

17 -- 1991 or '92. It came -- it came right -- right down

18 to Yellowknife River right -- right up the -- to Simps

19 -- Simpson Island. There was caribou all over back

20 then. Now the caribou is gone.

21   And for me, I think we should be really

22 serious about it to -- to work together and to -- to do

23 things step-by-step. If we miss something, just keep

24 going back to it until where we -- we left off from and

25 just continue to -- to work on it.

1   And I'm really thank -- thankful for --

2 for you guys to come here, to have a meeting here,

3 because in -- in town we don't -- we don't even have a

4 chance to talk, so now we do. So I thank you very

5 much. Mahsi cho.

6   THE CHAIRPERSON: Thank you, George

7 Tachecheli. Mahsi. If there's anybody else that want

8 to speak, they could come up. It looks like Eddie

9 Sikyea, Elder from N'Dilo.

10

11   (BRIEF PAUSE)

12

13   (INTERPRETATION FROM TLICHO INTO ENGLISH)

14

15   ELDER EDDIE SIKYEA: My name is Eddie

16 Sikyea from N'Dilo. And you guys are having a good

17 meeting regarding Giant Mine, and I've been listening

18 to you -- to you for the past three (3) days. And I'm

19 very familiar with Giant Mine.

20   When I was young, when -- back in 1936

21 this was my first time that -- that -- when I came here

22 I was five (5) years old when I first came here. Prior

23 to that, I have never been here. Drybone Bay, there's

24 a island, Bay Island. I was born there. That -- back

25 in 1931 I was born there.

1   And we've been living there in that area

2 for -- back in 1938 we moved to Wool Bay. In 1939 I

3 was sick, so I was sent -- medivac to -- to admitting

4 by -- back then they used to travel by dog team. We

5 couldn't come back so we moved to Rocher River

6 (phonetic).

7   We lived there for one (1) year. We

8 moved back in 1940. When we came back -- moved back

9 here in 1940, at Burwash we arrived there. That's

10 where we start camping. I was about ten (10) years

11 old.

12   At -- at the age of ten (10) I used to

13 do dog team. I used to haul water and check nets.

14 That was my chores. In 1942 my dad got a job at -- at

15 Con Mine. He worked there for sixteen (16) years. In

16 1948 when -- when I was eighteen (18) years old I

17 started working with my -- my father. One (1) hour we

18 work for one (1) -- one dollar ($1) an hour.

19   Every day we work for eight (8) -- eight

20 dollars ($8) a day, and it was ninety-six dollars ($96)

21 every two (2) weeks that we were receiving. And we

22 didn't have to pay tax. And my dad had worked that

23 long. At those days things were really cheap. We

24 bought boards.

25   Back in 1950, the water was

1 contaminated. When we heard that the water was

2 contaminated around Scodra (phonetic), we moved to that

3 area. Back to 1950's to present I'm still paying for

4 water. 1996 that's when I moved to a -- a new -- a new

5 house and I pay for water seventy-two dollars ($72) a

6 month. Back from tw -- two (2) years it -- it went up

7 to eighty-two dollars ($82). Now it went up to ninety-

8 three dollars ($93) a month and how's that? That's

9 because of Giant Mine. If Giant Mine didn't exist at

10 all we weren't going to pay for water at all.

11   It was -- it's my land. I was raised

12 here in -- in -- in Yellowknife river. I pay for

13 water. That's water that's coming from Yellowknife

14 River. Maybe it's -- I'm not the only one (1).

15 Diavik/BHP, if the water is polluted -- the water flows

16 to here. And we have to be very concerned and you have

17 to think about that.

18   1945 I used to travel by dog team, and I

19 used to travel Baker -- Baker Creek. And I'm not -- I

20 don't know what's it called in English. We used to do

21 -- get fish from that area by dog team. The Baker

22 Creek they contaminated, they destroyed the land, even

23 the trees, the branch, the plant. And two (2) youth

24 have died and two nine (9) minors have died.

25   What did they give us in return? And

1 all the -- the arsenic it's going to be in the ground

2 forever. What -- however time that blocks going to be

3 underground they should pay for our water and utility.

4 If they're not going compensate us they should do that.

5 That's my concern. And I wanted to let you know now I

6 have told you and for Metis people. If Ed Jones was

7 here, I wanted to tell him, Eddie Jones, back in 1939 I

8 don't think I ever recalled him getting any woods.

9   1939 I was in residence -- I mean in

10 residential school in Fort Resolution. We used to eat

11 fish at that time. Eddie Jones was really a small --

12 even his brother Henry -- Henry died in and Raymond is

13 still alive and were a little bit bigger. At that time

14 I saw him and how did he end up getting woods from

15 Giant Mine area. I could've told him that when he was

16 here. That is all I'm going to say for now. Thank

17 you.

18

19   (INTERPRETATION CONCLUDES)

20

21   (BRIEF PAUSE)

22

23   THE CHAIRPERSON: Thank you, Eddie

24 Sikyea, mahsi. Is there anybody else in the public

25 that wants to come up and talk about Giant Mine

1 remediation project?

2

3   (BRIEF PAUSE)

4

5   THE CHAIRPERSON: I don't see anybody.

6 If not, I think Chief Sangris wanted to make closing

7 comments.

8

9   (INTERPRETATION FROM TLICHO INTO ENGLISH)

10

11 CLOSING COMMENTS BY CHIEF EDDIE SANGRIS:

12   CHIEF EDDIE SANGRIS: Thank you. It

13 was a long meeting. We had listened to all the

14 presenter and all the public concerns, and this -- that

15 we went on into the evening.

16   How things has been corrupt with us, and

17 that -- that's a concern that we're putting forward.

18 This -- this evening we listened to Elders and young

19 people, things that we love, important that -- to us

20 that we keep it safe. And that's how they had talked

21 from their heart, and what happened to our land. How

22 damaged the land and the water had been. And over that

23 the water has been contaminated. And a couple of kids

24 that died from the arsenic, and that's the concern to

25 us that were brought forward.

 1   My dad had said at one (1) time I will

 2 love the land. Everything that was on the -- this land

 3 we survive by until the end of the earth, that we have

 4 to negotiate and bargain for our land. In youth, young

 5 youth, it will be up to you guys. There's something

 6 that we love that we have to bargain, and we're still

 7 keeping this word. So you -- you love something with

 8 your heart, that things will -- won't go wrong with us.

 9 That we have to keep talking about it.

10   We have listen to the public, and they

11 talk from their heart that they're really concerned.

12 Listen to their words. For the future, our kids and

13 their grandkids that we're talking for.

14   Same thing -- something that's really

15 dangerous that is -- that is going to be stored

16 underground for eternity, I can -- I don't feel good

17 thing about that. I'm sure people thinking the same

18 way. Our next generation of kids, how they going to

19 feel.

20   Some people are saying that our land is

21 being polluted, and it's like some people just went

22 back home and this is up to you guys to fix up that

23 place. This is how we're being faced today. Not only

24 our members, but the non-aboriginal people living among

25 us, I'm sure they're impacted, too.

1   Before the Giant Mine, how things used

2 to be. And then my mommy, my mom and my dad, they used

3 to say that - - that no -- a lot of stories, grandpa's.

4 It used to be a good place to go. There's like a

5 little island there, and the creek, Baker Creek. And -

6 - and they go to Martin Lake and fish. Is good place

7 for plants, for flowers, and berries. It was like a --

8 our store for us. Not today. Look at it. It's far

9 from a store. We used to get all the traditional food

10 from the land there.

11   And that's why we're saying today we

12 know that that -- whenever it take place -- how it used

13 to be at one (1) time, it will never come back to that.

14   The arsenic that's being stored

15 underground for eternity, we don't think it will be a

16 good place to -- for people to go again. That's why

17 the public at large are concerned. We're hearing them

18 today.

19

20   (INTERPRETATION CONCLUDED)

21

22   CHIEF EDDIE SANGRIS: I just want to

23 thank the Developers, the Review Board, and the staff.

24 I'd like to thank especially community members and the

25 public for coming out to this session.

399

1   The Board has heard a lot of concerns

2   from many of our members. Now, the purpose of this

3   hearing is to focus on the impacts and implementation

4   of the frozen block method, but it is important to be

5   reminded of the history of the site and how it was.

6   I've heard many stories from the Elders

7   in the past, how they have survived from being near

8   that place, the medicine that they get from the area,

9   the trees. Now it is all gone. The perpetual care

10 won't bring it back.

11   Elders who have worked the land spoke to

12 you about the realities of life when the mine was in

13 operation. Those -- as my opening comment mentioned is

14 that you have to listen to those people.

15   We have already said we do not agree

16 with the frozen block method, that it is not the

17 solution we want to live with forever. The mitigation

18 measures that Aboriginal Affairs and Northern

19 Development Canada have proposed can be improved on.

20 We cannot stop looking for solutions, because the

21 frozen block solution is not the only solution that we

22 seek as Dene that have been adversely impact by the

23 development and devastation.

24   Now, we as Dene must be meaningfully

25 engaged in the decision-making for the remainder of the

400

1 project. As you have heard earlier, we tried to

2 engage, but we were ignored, pushed aside. Now, when I

3 say we must be engaged, it's whether that takes the

4 form of GMAC, Giant Mine Advisory Committee, or other

5 oversights, models. Real commitment must be made, as

6 you heard tonight.

7   A lot of times, when we come to an

8 understanding, you have to make that commitment of

9 understanding. We have made an understanding with

10 Crown 1900: As long as the sun rises, the river flows,

11 and the grass grows, that we will work in friendship,

12 cooperation. But it seems today, in the modern era,

13 we're still negotiating on our claims. Meanwhile, the

14 reality of life, of Giant Mine legacy has come to an

15 end. A new legacy is about to begin, of recovery.

16   Now that's the thing that scares us the

17 most. Not us personally, but we are scared for future

18 generations and those yet unborn. You heard the fears

19 of the people that pass through there daily. You hear

20 of the fears of the people that live across it. And

21 you're going to keep on hearing the fears in the future

22 generations.

23   That's why we must -- like I said,

24 mining is a ancient industry. But the solution of

25 remedation -- remediation, this is a relatively new

1 concept. And whenever we care for the land the best

2 people to clean it up is the people that depend on it,

3 that sustain themselves on it, their livelihood. The

4 people that depend on the land for the food, the water,

5 sometimes those are the people that look after the land

6 the best.

7   And I'd also like to recommend that they

8 set up independent review of this project because I see

9 here tonight it's going to have adverse effects on the

10 people of Yellowknife Dene, not only us but to people

11 right across the north, right from Yellowknife Bay all

12 the way to the ocean, the Arctic Ocean. Think about

13 it.

14   So with that, I'd like to thank

15 everybody here. And, the Creator willing, someday I

16 hope that we can finally bring to closure of one (1) of

17 the most disastrous areas in Canada and how the people

18 survived through it. Mahsi cho.

19   THE CHAIRPERSON: Thank you, Chief

20 Eddie Sangris. This concludes our meeting for tonight.

21 I -- first of all, I want to thank the host community

22 of Dettah, Chief Eddie Sangris and band council's

23 Elders, and all of your members that are here tonight.

24   Also I want to thank the Developers that

25 are here as well, and the -- and their support team and

 1 staff. Also I'd like to thank the Review Board staff

 2 that are here as well, and all the Board members. As

 3 you can see, the Board members are -- are from

 4 different parts of the Northwest Territories that are

 5 here.

 6   And we're still going to be meeting for

 7 two (2) more days, tomorrow and Friday. And we're

 8 hoping to make up a little more time tomorrow, because

 9 we've still got to catch up on a couple of little items

10 that we'd like to do.

11   But with that, I also want to thank the

12 caterers that provided food tonight, Adeline (phonetic)

13 and Paul Mackenzie (phonetic). Thank you. Mahsi. And

14 our translators in the bac. We can't do it without the

15 translators, so I want to say thank you very much.

16 Mahsi.

17   And this concludes our meeting for

18 tonight and I'm going to ask the Elder Alfred

19 Baillangeon if he could come up to do the closing

20 prayer.

21

22   (CLOSING PRAYER)

23

24   THE CHAIRPERSON: We'll start again

25 tomorrow morning, nine o'clock, Tree of Peace. And I

 1 welcome all guests and visitors and Dettah as well.

 2 Mahsi.

 3

 4 --- Upon adjourning at 10:45 p.m.

 5

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 9 Certified correct,

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14 Lorraine Douglas, Ms.

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